Center for American Progress

Groundhog Days

Utilities Wrong Again About Pollution Safeguard Costs

By Daniel J. Weiss and Miranda Peterson March 19, 2014

The late, great Harold Ramis's comedy "Groundhog Day" has become cultural shorthand for an event that endlessly repeats itself. This is summed up when Andie MacDowell asks Bill Murray, "Do you ever have déjà vu?", and Murray responds, "Didn't you just ask me that?"[1]

When it comes to air-pollution reductions, coal and utility companies' objections to government protections feel like "Groundhog Day" moments. Recently, these industries have again predicted that government pollution limits would result in skyrocketing electricity prices. However, their record as prognosticators is quite poor. Their past predictions of doom were wrong, and so are their current claims that the Environmental Protection Agency's, or EPA's, first carbon-pollution cuts for power plants would be disastrous.

In September 2013, the EPA proposed limits on carbon pollution from future power plants.[2] This June, the EPA plans to propose the first reductions in carbon pollution from existing power plants.[3] Coal and some utility companies are in full "Groundhog Day" mode, trotting out the same fear-mongering claims about zooming electricity rates and other harms that they have alleged for years about other pollution safeguards.

Yet over the past 40 years, experience has taught us that industry predictions of apocalyptic costs from pollution-control requirements do not occur. In the 1970s, electric utilities and other industries forecasted huge utility rate hikes from the new clean air law, but in 1982, the Congressional Budget Office concluded that the changes in cost were actually low.[4]

The Edison Electric Institute, or EEI, is the lobbying arm for investor-owned utilities. As part of its campaign against acid-rain-pollution reductions from power plants in 1989, it predicted that electricity rates in the lower 48 states would significantly rise. Two decades later, a Center for American Progress analysis of EEI's overall rate prediction determined that it was 16 percent too high. (see Table 1)

Far from doing harm, these past air-pollution-protection measures helped safeguard millions of people from smog, acid rain, and soot particles. These contaminants can lead to respiratory ailments, trigger asthma attacks, and even cause premature deaths.[5] The recent hyperbolic rhetoric around EPA proposals to finally control carbon pollution from power plants is simply a repeat of past hysteria. These new safeguards are essential for Americans' health and economy. Rather than focusing on biased studies, officials and the press should focus on the huge costs of climate inaction: more smog, more asthma attacks, more ferocious storms, more droughts, and more wildfires.

A history of hysteria

Beginning with the debate over the Clean Air Act of 1970, polluting industries and their sympathizers have been crying wolf about cost increases due to pollution controls. For instance, in 1972, Carl G. Beard II, director of the West Virginia Air Pollution Control Commission, testified before the Senate Public Works Committee that compliance with the Clean Air Act of 1970 by "electric energy companies" would lead to "mistakes of that industry [that] will be placed in the rate base of the electric companies."[6] He claimed that, "Consumers of power will pay for these costly errors for the next 25 to 30 years." During the debate over the Clean Air Act of 1977, "electric utilities and other industries complained that scrubbers [to cut air pollution] were unreliable and costly," according to the *Congressional Quarterly Almanac 1977*.[7]

But in 1981, the bipartisan National Commission on Air Quality determined that such predictions of economic disaster under the Clean Air Act were wrong. The *Congressional Quarterly Almanac 1981* reported that the commission made the following findings:

> *Improved air quality had brought benefits worth from $4.6 billion to $51.2 billion per year, while costs of … pollution control equipment were estimated to have been $16.6 billion in 1978. … The act had not been an important obstacle to energy development. … The law had not significantly inhibited economic growth.*[8]

The Congressional Budget Office similarly debunked huge rate claims, determining in 1982 that "the average nationwide contribution of [pollution controls on power plants] to total future generating costs should remain quite small."[9]

The implementation of the Clean Air Acts of 1970 and 1977 helped reduce air pollution, protect public health, and had a significant net economic benefit to the nation. *The New York Times* reported that the National Commission on Air Quality determined "that the law had resulted in a 'significant' cleaning up of the nation's air and, even more important, prevented much more serious air problems."[10] An EPA assessment found that there were "net, direct, monetized benefits ranging from 5.1 to 48.9 trillion dollars, with a central estimate of 21.7 trillion dollars, for the 1970 to 1990 period," due to reductions in diseases, learning impairments, and premature deaths.[11]

1989 EEI utility rate study was also wrong

The utility industry doubled down on its apocalyptic predictions during the debate over President George H.W. Bush's bill to reduce acid-rain pollution from coal-fired power plants. On September 7, 1989, Edward L. Addison, the president and CEO of Southern Company, a major electric utility, testified on behalf of EEI before the House Subcommittee on Energy and Power on the Bush acid-rain bill. He also submitted an EEI-commissioned study for the hearing record.[12] Addison testified that, "We estimate that the acid rain provisions alone of H.R. 2020 could cost electric utility rate payers $5.5 billion annually between enactment and the year 2000, increasing to $7.1 billion per year from 2000-2010."[13]

The EEI study projected that ratepayers in states that were heavily reliant on coal-fired electricity would face particularly high rate increases. Addison claimed that all electricity consumers in such states would face an average utility rate hike up to 13.1 percent from 1990 to 2009 even under the bill's "low cost" scenario. Addison concluded that EEI's calculations "underestimate the rate shock that would actually occur."[14]

Based on its low-cost-of-compliance scenario, EEI forecasted that the acid-rain program would lead to an average electricity rate increase of 3.2 percent between 1990 and 2009 in the 48 contiguous states. This would have led to an average nationwide 2009 electricity rate of 10.8 cents per kilowatt hour, or kWh, in 2009 dollars.

At the time, it was impossible to prove that these prognostications were false. But we can now compare EEI's state-specific rate predictions with those states' actual 2009 utility rates. Not surprisingly, our analysis found that the EEI study was flat-out wrong. In fact, CAP calculated that the average 2009 rate for these states was actually 9.5 cents per kWh—16 percent lower than EEI predicted. (see the Methodology section for more information on our calculations)

EEI estimated that 46 of the 48 states studied would experience an electricity rate increase of 0.1 percent to 13.1 percent between 1990 and 2009. CAP found that by 2009, the electricity rates in 36—more than three-quarters—of these states were lower than EEI had predicted. And of these states, 32 of them had *lower* electricity rates in 2009 than in 1990—in 2009 dollars—even after complete implementation of the acid-rain provisions of the Clean Air Act. Electricity prices had decreased during this time because of lower fuel transportation costs, deregulation, and other factors.[15]

In his testimony, Addison cautioned that states with a significant portion of their electricity generated by coal would experience some of the largest rate increases, including several states with double-digit rate increases. This prophecy was also false. CAP's analysis determined that 9 of these 10 heavy-coal-burning states had average 2009 electricity rates lower than EEI predicted, and 8 of 10 had 2009 rates lower than in 1990 in 2009 dollars. (see Table 1)

TABLE 1

EEI wrongly predicted huge rate increases in 10 biggest coal electricity states

All electricity rates in 2009 dollars

State	EIA 1990 rate cents per kWh	EIA 2009 rate cents per kWh	EEI predicted 2009 rate cents per kWh	Percent EEI prediction was off
Alabama	9.1	8.8	9.6	9%
Georgia	10.8	8.8	11.4	30%
Indiana	8.8	7.6	9.9	29%
Kentucky	7.3	6.5	7.9	21%
Missouri	10.6	7.4	12.0	63%
Ohio	9.7	9.0	10.7	19%
Pennsylvania	12.5	9.6	13.3	38%
Tennessee	8.7	8.7	9.5	9%
Texas	9.5	9.9	9.5	-3%
West Virginia	7.8	6.7	8.5	28%
10 highest coal states average	**9.5**	**8.3**	**10.2**	**24%**
U.S. 48-state average	**10.4**	**9.5**	**10.8**	**16%**

Note: Figures are rounded.

Sources: "Clean Air Act Reauthorization (Part 1)," Subcommittee on Energy and Power, Hearing on H.R. 144, H.R. 1470, H.R. 2568, H.R. 2909, H.R. 3030, and H.R. 3211, September 7, 1989; U.S. Energy Information Administration, *Electric Power Annual* (U.S. Department of Energy, 2013), Form EIA-861, available at http://www.eia.gov/electricity/data.cfm#sales.

These rates were achieved as the coal plants in these and other states made significant reductions in their acid-rain-pollution emissions. A 2011 National Science and Technology Council report found that the Clean Air Act of 1990's acid-rain-reduction provisions led to a two-thirds cut in acid-rain ingredients and even achieved pollution reductions beyond those required by law.[16] The EPA estimated the compliance cost "at about $3 billion per year—less than half the initial estimates," and the human health benefits of reduced acid rain were "$170 billion to $430 billion in 2010 alone."[17]

The EEI study proved false because it ignored the innovation and savings that occur once managers and engineers have binding reduction targets with firm deadlines. In other words, EEI's study could not predict nor account for future innovation. In reality, numerous studies found that regulation can stimulate creative invention.[18] The EPA found that the Clean Air Act[19] prompted the deployment of new technologies to reduce sulfur dioxide and nitrogen oxide emissions, which are ingredients in acid rain and smog.

Here they go again: Coal and utilities predict huge rate hikes from carbon cuts

Fast forward 25 years, and the coal and utility industries are now predicting that cutting carbon pollution from power plants will jack up rates. In September 2013, for instance, EEI criticized the EPA's proposed carbon-pollution standards for new plants, claiming that, "We cannot afford to take generation sources out of the mix."[20] Additionally, the American Coalition for Clean Coal Electricity,[21] which represents 44 coal, utility, and other companies, claimed in its January 2014 fact sheet that, "NERA's [Economic Consulting] analysis of the proposal found that it could cost electricity consumers between $13 billion and $17 billion per year … and cause double-digit electricity price increases in 13 to 29 states."[22]

Similarly, after the EPA proposed a carbon-pollution standard for new power plants in September 2013, the U.S. Chamber of Commerce complained that the EPA has "released yet another major regulation that will hamper economic growth and job creation … [It is] another costly energy-related regulation."[23]

These guesses about the cost of cutting carbon pollution are very similar to claims made by their utility industry predecessors—and they are just as likely to be wrong.

While the predictions for skyrocketing electricity prices are often overdone, it is important to keep in mind that utility rates will rise regardless of whether or not the EPA limits carbon pollution from power plants because utilities must invest in revitalizing their electricity delivery infrastructure. The *National Journal* recently reported that "Your Utility Bill Is Going Up (and There's Nothing You Can Do About It)."[24] This means that air-pollution reductions are not to blame for inevitable rate hikes in the near future but rather that such increases would be due to investments in the aging electricity system. Public officials and the media must understand and convey to the public that these expected rate increases have nothing to do with cutting carbon pollution, though some of them are necessary due to investments to prepare electricity infrastructure to better cope with extreme weather from climate change.

Carbon-pollution reductions are affordable and beneficial

The EPA carbon-pollution proposal due in June will likely set a carbon-pollution-reduction level for existing coal-fired power plants and provide states with ample flexibility to design cost-effective programs to achieve these reductions. This flexibility would enable utility managers, engineers, government officials, and the public to collaborate on the development of innovative, cost-effective solutions to help their states cut pollution and keep electricity rates reasonable for consumers.

For instance, the World Resources Institute analysis of existing renewable electricity, efficiency, and other programs in eight large states found that the implementation of their existing state laws could achieve an important portion of the carbon-pollution reductions that would be required under the EPA rule.[25] The Natural Resources Defense Council proposed that the EPA encourage utilities to achieve much of their carbon-pollution reductions via significantly improved energy efficiency, which would also save consumers money.[26] Just as today's downbeat predictions are likely to repeat history and prove to be unwarranted, the resulting net benefits from less carbon pollution should follow the successes of the previous air-pollution safeguards.

Conclusion

At a Senate Public Works Committee Clean Air Act hearing in 1972, Robert J. Rauch,[27] an economist with Jack Faucett Associates, warned that polluting companies' strategy:

> *… is really quite simple. An industry confronted with environmental regulations commissions an "expert" study to show that the costs of complying with the regulations would be prohibitive. These cost estimates are then highly publicized and used to generate public demand that the standards be relaxed. Once publicized these cost estimates take on a life of their own—mere repetition assures their acceptance.*

The coal and utility industries still employ this same scheme 40 years later. It is imperative that public officials and the media question their electricity cost claims even if they have an "expert study" that purports to "prove" them. Instead of these stilted studies, we must focus on the costs of inaction. We are already suffering from many of the consequences of unchecked climate change, which cost billions of dollars annually and harm our health. If power-plant carbon pollution continues unabated, the cost of climate change damages will be much more expensive than pollution reductions.

In "Groundhog Day," Bill Murray's character ultimately breaks the cycle, which finally frees him from repeating February 2 over and over again. Perhaps one day the coal and utility industries will finally recognize the value of cost-effective public health safeguards and free themselves from the endless recycling of their false predictions. Until then, public officials and the media must ignore them and their self-serving projections that are intended to slow actions on climate change. Otherwise, we will be stuck in a "Groundhog Day" nightmare of extreme weather and other harmful consequences.

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Methodology

To assess the accuracy of the EEI study, *Economic Evaluation of H.R. 3030/S. 1490 "Clean Air Act Amendments of 1989": Title V, the Acid Rain Control Program*, we took the following steps.[28] First, we used U.S. Energy Information Administration data on 1990[29] and 2009[30] overall average utility rates for each of the 48 states in the study, which excludes Hawaii and Alaska. We then converted the 1990 rates into 2009 dollars by using the U.S. Bureau of Labor Statistics's[31] inflation calculator. We calculated EEI's projected 2009 utility rates by applying its study's average rate increases under its low-cost scenario to the inflation-adjusted 1990 overall average utility rates for each state in 2009 dollars.[32] Finally, we compared EEI's projected 2009 overall utility rate for each state to the states' actual 2009 utility rate. The result revealed that EEI's overall rate prediction was overstated by 16 percent, and EEI overestimated the impact of pollution reductions on electricity rates in 36 of the 48 states in its study.

TABLE 2

EEI State electricity rate predictions from acid rain reductions way off

All electricity rates in 2009 dollars

State	EIA 1990 rate cents per kWh	EIA 2009 rate cents per kWh	EEI predicted rate change	EEI predicted 2009 rate cents per kWh	EEI predicted cents per kWh compared to EIA actual 2009 rate	Percent EEI prediction was off
Alabama	9.1	8.8	5.5%	9.6	0.8	9%
Arizona	12.7	9.6	0.4%	12.8	3.2	33%
Arkansas	11.0	7.6	0.0%	11.0	3.4	45%
California	14.5	13.2	0.2%	14.5	1.3	10%
Colorado	9.7	8.3	0.3%	9.7	1.4	17%
Connecticut	15.0	18.1	0.3%	15.0	-3.0	-17%
Delaware	10.6	12.1	3.3%	10.9	-1.2	-10%
Florida	11.5	11.5	2.7%	11.9	0.4	3%
Georgia	10.8	8.8	6.2%	11.4	2.7	30%
Idaho	6.2	6.5	0.7%	6.2	-0.3	-4%
Illinois	12.3	9.1	4.5%	12.9	3.8	42%
Indiana	8.8	7.6	12.2%	9.9	2.3	29%
Iowa	9.7	7.4	2.7%	10.0	2.6	35%
Kansas	10.8	8.0	0.9%	10.9	2.9	37%
Kentucky	7.3	6.5	7.3%	7.9	1.4	21%
Louisiana	9.8	7.1	2.4%	10.0	3.0	42%
Maine	12.5	13.1	0.2%	12.5	-0.6	-4%
Maryland	10.3	13.1	4.8%	10.8	-2.3	-17%
Massachussets	14.5	15.5	0.7%	14.6	-0.8	-5%
Michigan	11.6	9.4	2.3%	11.9	2.5	27%

State	EIA 1990 rate cents per kWh	EIA 2009 rate cents per kWh	EEI predicted rate change	EEI predicted 2009 rate cents per kWh	EEI predicted cents per kWh compared to EIA actual 2009 rate	Percent EEI prediction was off
Minnesota	8.7	8.1	2.7%	8.9	0.8	10%
Mississippi	10.0	8.9	5.7%	10.6	1.7	19%
Missouri	10.6	7.4	13.1%	12.0	4.6	63%
Montana	6.5	7.6	0.9%	6.6	-1.0	-13%
Nebraska	9.1	7.2	0.2%	9.1	1.9	26%
Nevada	8.8	10.4	0.3%	8.8	-1.5	-15%
New Hampshire	14.9	15.1	4.6%	15.6	0.3	3%
New Jersey	14.9	14.5	3.5%	15.4	0.9	6%
New Mexico	11.6	8.1	0.5%	11.7	3.6	44%
New York	15.4	15.5	1.3%	15.6	0.1	1%
North Carolina	10.5	8.5	3.4%	10.8	2.4	28%
North Dakota	9.4	6.6	3.3%	9.7	3.1	46%
Ohio	9.7	9.0	10.9%	10.7	1.7	19%
Oklahoma	9.0	6.9	0.1%	9.0	2.1	30%
Oregon	6.9	7.5	0.0%	6.9	-0.6	-8%
Pennsylvania	12.5	9.6	5.6%	13.3	3.7	38%
Rhode Island	15.0	14.2	0.8%	15.1	0.9	6%
South Carolina	9.2	8.4	4.2%	9.6	1.2	14%
South Dakota	10.1	7.4	5.4%	10.6	3.3	44%
Tennessee	8.7	8.7	8.6%	9.5	0.8	9%
Texas	9.5	9.9	0.4%	9.5	-0.3	-3%
Utah	9.0	6.8	0.4%	9.0	2.3	33%
Vermont	13.6	12.8	0.1%	13.6	0.9	7%
Virginia	9.9	8.9	4.7%	10.4	1.4	16%
Washington	5.6	6.6	2.1%	5.7	-0.9	-13%
West Virginia	7.8	6.7	10.1%	8.5	1.9	28%
Wisconsin	8.8	9.4	3.2%	9.1	-0.3	-3%
Wyoming	6.9	6.1	1.7%	7.0	0.9	15%
U.S. 48-state average	**10.4**	**9.5**	**3.2%**	**10.8**	**1.2**	**16%**

Note: Figures are rounded.

Sources: "Clean Air Act Reauthorization (Part 1)," Subcommittee on Energy and Power, Hearing on H.R. 144, H.R. 1470, H.R. 2568, H.R. 2909, H.R. 3030, and H.R. 3211, September 7, 1989; U.S. Energy Information Administration, *Electric Power Annual* (U.S. Department of Energy, 2013), Form EIA-861, available at http://www.eia.gov/electricity/data.cfm#sales.

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