

Opinion: The false trade-off between green energy and toxic chemical regulation

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The long and tortuous effort to regulate toxic chemicals in America has now come up against an ironic obstacle: anti-environmental lobbying by the manufacturers of batteries and other renewable energy technologies that rely on toxic substances. The successful effort by the chemical industry to resist regulation picked up steam in the 1980s.

Now they are asking renewable energy manufacturers to join them as allies. Their argument is consistent and deadly: "Regulation stifles innovation and economic growth. If we are required to follow environmental rules, we will lose in the competition against companies from nations that do not have those rules." The result has been a more toxic environment and significant damage to human and ecological health. The chemical industry has been successful in defeating and delaying nearly all regulations on toxic chemicals.

Tens of thousands of new substances have been introduced by the [chemical industry](#) since the Toxic Substances Control Act (TSCA) was enacted in 1976, but only a handful have been regulated. The strengthening of TSCA in 2016 has still not changed the toxic facts on the ground. Even when we know that chemicals have toxic impacts, they are often used indiscriminately. And now we see another variant on the industry's strategy: arguing that the transition to renewable energy requires toxic chemicals.

As Eric Lipton reported last week in the *New York Times*: "The Biden administration is preparing to impose some of the first new rules in a generation to restrict or ban an array of toxic chemicals that are widely used in manufacturing, presenting the White House with tough choices between its economic agenda and [public health](#). Many of the substances in question are important to industries that President Biden has backed through other policies intended to bolster global competitiveness and national security, such as semiconductors and [electric vehicles](#)."

"Corporations are framing the decisions about [new regulations](#) for an initial group of toxic chemicals as putting at risk the administration's drive to nurture the American economy of the future. Environmental and public health groups are stressing the need to focus on protecting workers and communities from substances known to carry health risks, such as cancer, liver and kidney damage and infertility. A major

lobbying clash is already underway"

"Chip makers, the burgeoning electric vehicle industry and other companies, including military contractors, are pressuring the administration to water down the new rules, saying the repercussions of a ban or new restrictions could be crippling."

Despite the arguments made by some in business, it is possible to reduce the use of toxics and still grow a company. Moreover, most regulations in America are introduced gradually and companies often have years to fully comply with new [environmental rules](#). The issue here is that America's dominant anti-regulatory ideology seems to have convinced many businesses and their lobbyists that all rules are bad for business.

History seems to demonstrate that the opposite is true. Regulations provide opportunities for innovation and often result in new business formation. Someone must make the airbags, catalytic converters, and seat belts. Sometimes the technical capacity needed to comply with a new rule is deployed elsewhere in the company once the rule has been implemented. The motor vehicle of today is more computerized and less mechanical than motor vehicles of the 20th century.

Cars are lighter, more fuel efficient, safer, and more reliable. Often these new government requirements create competition around a product's features that wasn't in the original sales pitch. When a family vehicle is purchased, sometimes the car's safety record is the deciding factor. When a new refrigerator is bought, the [annual cost](#) of operating the appliance is now considered along with its retail price.

Rules on energy efficiency and operating cost disclosure improve product performance and help consumers make more informed purchases. The problem with regulation is that often a company's culture resists new rules as inherently anti-business. When companies must

comply with rules, elements of a culture of innovation are sometimes force-fed into a company resistant to change. That doesn't always work well.

Nevertheless, there are many examples of companies that don't wait for the new rules to come, and instead decide to incorporate pollution reduction into their corporate culture. Apple is an example of an electronics company that has focused on reducing toxics while continuing to grow. According to Apple:

"Apple believes that reducing, restricting, and eventually eliminating the use of hazardous substances in materials is essential to ensure the safety of workers who manufacture its products, customers who use its products, and recyclers who handle its products at the end of the products' useful life. This commitment to safety has driven Apple to lead the electronics industry in phasing out hazardous substances from its products...Apple initiated its program on safer materials in the early 1990s, when some heavy metals and polyvinyl chloride (PVC) were restricted in certain applications."

"At the time, Apple created a Regulated Substances Specification that required its suppliers to abide by its restrictions on hazardous substances. Restrictions were increased steadily, with a major change occurring in 2009 when nearly all uses of brominated flame retardants (BFR) and PVC were eliminated."

The [chemical companies](#) have somehow convinced people that they must choose between innovation and health. Once they develop a new chemical with useful properties, they don't seem to be too concerned about the side effects of their invention. The companies that use these toxic substances in their products seem to believe that they have no alternatives, but they do. When engineers are given new design parameters, they often seem to find new ways to produce the products

they are working on.

While the trade-off between [green energy](#) and controlling [toxic chemicals](#) is not real, I suspect some climate policy advocates may accept the argument and will consider control of toxins less important than control of greenhouse gasses. This speaks to the dominance of climate change on the environmental policy agenda. I do not consider either of these issues to be more important than the other.

In fact, both can be subsumed under the overall issue of the unanticipated impact of the introduction and use of new technologies on people and the planet. The science of climate change, its causes, impacts, and even solutions are well known. Unfortunately, far less research has been undertaken on [toxic substances](#) and even less on ecosystems and biodiversity.

Climate is a vexing problem for our political and economic systems but not for science and engineering. We know what we need to do. When we are being realistic, we know that even simple solutions take a long time to implement in the real world. We know we need to decarbonize, but it will take a generation to accomplish that heavy lift. Many other environmental issues are far less simple. The science is less certain.

Toxic substances have proven to be complicated and difficult to regulate and the initial 1976 law proved to be incredibly ineffective. In June 2016, late in his second term, President Barack Obama signed into law the Frank R. Lautenberg Chemical Safety for the 21st Century Act. According to the Environmental Defense Fund: "For decades, the Toxic Substances Control Act of 1976 had proven ineffective at ensuring the safety of the chemicals used in everything from household cleaners to clothing and couches. The broken chemical safety system... Allowed tens of thousands of chemicals to remain on the market without any review of their safety...[TSCA] Gave companies wide latitude to claim

chemical information they submitted to the government to be trade secrets and hide it from the public and even from state and local governments and medical professionals...The Lautenberg Act gives the EPA the tools necessary to ensure the safety of chemicals and significantly strengthen health protections for American families."

"Notably, the law...Mandates safety reviews for chemicals in active commerce...Requires a safety finding for new chemicals before they can enter the market...Replaces TSCA's burdensome cost-benefit safety standard—which prevented the EPA from banning asbestos—with a pure, health-based safety standard. Makes more information about chemicals available, by limiting companies' ability to claim information as confidential, and by giving states and health and environmental professionals access to confidential information they need to do their jobs."

The Trump Administration did virtually nothing to implement this new law and now, over two years into the Biden Administration, a small bit of progress is finally underway. It would be beyond tragic if the false trade-off between green energy and chemical safety got political and media traction and killed these baby steps at finally regulating some of the worst poisons in our economy. The toxins in our renewable energy technology need to be phased out. They need to be replaced with substitutes. These new rules can stimulate and accelerate the pace of technological innovation.

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