Lawmakers hope to use this emerging climate science to charge oil companies for disasters

April 29 2024, by Alex Brown, Stateline.org

Credit: CC0 Public Domain

A fast-emerging field of climate research is helping scientists pinpoint just how many dollars from a natural disaster can be tied to the historic emissions of individual oil companies—analysis that is the centerpiece of new state efforts to make fossil fuel companies pay billions for floods, wildfires and heat waves.

When a flood or wildfire hits, researchers in "attribution science" run computer models to help determine whether the disaster was caused or intensified by climate change.

As those models become more precise, other scientists are working to measure how specific companies, such as Exxon Mobil or Shell, have contributed to climate change through their historic greenhouse gas emissions.

"This is a growing field, and it's a game changer for addressing climate change," said Delta Merner, the lead scientist for the Science Hub for Climate Litigation at the Union of Concerned Scientists, a climate-focused research and advocacy nonprofit. "It has a role to play in litigation and in policy, because it gives us that precision."

For the first time, some state lawmakers are trying to turn that advanced modeling into policy. Under their proposals, state agencies would use attribution science to tally up the damages caused by climate change and identify the companies responsible. Then, they would send each company a bill for its portion of the destruction, from heat waves to hurricanes.

"This science is evolving rapidly," said Anthony Iarrapino, a Vermont-based attorney and lobbyist for the Conservation Law Foundation who has been a leading advocate for attribution-based policy. "This is something that couldn't have been done 10 years ago. [Lawmakers] are benefiting from this shift in focus among some of the most talented scientists we have out there."

Lawmakers in Vermont and four other blue states have proposed "climate Superfund" bills, which would create funds to pay for recovery from climate disasters and preparation for sea level rise and other adaptation measures.

Oil and coal companies would pay into those funds based on the percentage of emissions they've caused over a set period. The legislation's name references the 1980 federal Superfund law that forces polluters to pay for the cleanup of toxic waste sites.

States' climate proposals come after years of lawsuits by state attorneys general against many of those same companies. They claim the companies knew years ago that fossil fuel use was causing climate change, but misled the public about that danger. While the courtroom fights are far from resolved, some advocates think it's time for lawmakers to get involved.

"There have been a lot of lawsuits trying to get these companies to pay for some damages, and the industry's message has been, 'This is a task for legislatures, not the courts,'" said Justin Flagg, director of environmental policy for New York state Sen. Liz Krueger, a Democrat. "We are taking up that invitation."

Oil industry groups object to the methodologies used by attribution scientists. Industry leaders say lawmakers are acting out of frustration that the lawsuits have been slow to progress.

"The science isn't proven," said Mandi Risko, a spokesperson for FTI Consulting and a contributor to Energy In Depth, a research and public outreach project of the Independent Petroleum Association of America, a trade group. "[The state bills] are throwing spaghetti at a wall. What's gonna stick?"

Oil companies also assert that climate Superfund bills, if enacted, would force the penalized companies to raise gas prices on consumers in those states.

A legislative push

The push for climate Superfund legislation began with a federal bill in 2021, backed by U.S. Senate Democrats, that failed to pass. Lawmakers in a handful of states introduced their own proposals in the following years. Now, Vermont could soon become the first to enact a law.

Vermont's measure would task the state treasurer with calculating the costs of needed climate adaptation work, as well as the damage inflicted by previous disasters such as last summer's devastating floods.

The program would collect money from companies that emitted more than 1 billion tons of carbon dioxide around the world from 1995 to the present day. Those companies with a certain threshold of business activity in Vermont would be charged according to their percentage of global emissions.

"We can with some degree of certainty say how much worse these storms are [due to climate change]," said Democratic state Sen. Anne Watson, the bill's sponsor. "That really is the foundation for us to bring a dollar value into a piece of legislation like this."

Environmental advocates say the bill is a pioneering attempt to use the latest science for accountability.

"This is one of the first instances of climate attribution science being at the center of legislation," said Ben Edgerly Walsh, climate and energy program director with the Vermont Public Interest Research Group, an environmental nonprofit. "That reflects the maturity of this field."

Walsh said the measure, if passed, is expected to bring in hundreds of millions of dollars. The bill was approved by the Senate earlier this month in a 26-3 vote, and a House version has been co-sponsored by a majority of that chamber's members. Republican Gov. Phil Scott has not said whether he would sign it into law, but he has said he would prefer to see larger states go first.

Exxon Mobil deferred an interview request to the trade group American Petroleum Institute. The institute did not grant an interview with Stateline, but pointed to the comments it filed with Vermont lawmakers last month. The group said its members lawfully extracted fossil fuels to meet economic demand and should not be punished for that after the fact. The letter also questioned states' authority to impose payments for emissions that were generated overseas.

Meanwhile, New York lawmakers are currently negotiating a budget that could include a climate Superfund policy. A measure that passed the Senate at the end of last year would seek to collect $75 billion over 25 years to pay for the damages of climate change.

"It's not intended to be punitive, it's intended to pay for our needs," said Flagg, the New York Senate staffer. "It's going to be a lot of money, and $75 billion is only a small portion of that."

The proposal applied to companies with a presence in New York responsible for more than 1 billion tons of greenhouse gas emissions worldwide between 2000 and 2018.

In Massachusetts, Democratic state Rep. Steve Owens introduced a similar bill last year. While the measure failed to advance, Owens said lawmakers are becoming familiar with the concept.

"Is this fraud that we can litigate or something that we can legislate?" he asked. "That question was not settled in time for this session. We're going to keep working to get people used to the idea."

Lawmakers in California and Maryland also have introduced climate Superfund bills this session.

Challenges ahead

If legislatures in Vermont and elsewhere pass climate Superfund bills, the state officials who carry them out are expected to rely heavily on researcher Richard Heede's "Carbon Majors" project, which has tallied the historic emissions of 108 fossil fuel producers using public data.

"We know enough to attribute temperature response, sea level rise, build a reasonable case and apportion responsibility among the major fossil fuel producers," said Heede, whose project is part of the Climate Accountability Institute, a Colorado-based nonprofit research group that has received funding from the Rockefeller Brothers Fund. "But that hasn't been tested in court."

Heede said that more than 70% of carbon emissions from fossil fuels can be linked to just over 100 companies, but noted that many large emitters, such as Saudi Aramco, the national oil company of Saudi Arabia, are owned by international governments that are unlikely to face accountability from U.S. state governments.

Last year, a study looking at temperature and water vapor data found that much of the area burned by wildfires in the West over the past several decades was tied to emissions produced by the largest fossil fuel and cement companies. That research by the Union of Concerned Scientists' Merner and others was published in *Environmental Research Letters*. Similar research, looking at storms and heat waves, can show how much of an event's intensity and economic damage can be pinned on climate change.

Backers of the state bills say they expect strong legal challenges from oil companies if their proposals become law. Pat Parenteau, an emeritus professor of environmental law at Vermont Law School, has supported states' climate lawsuits, but cautioned that climate Superfund bills will likely face similar legal delays if enacted.

"The companies are gonna litigate the hell out of it," he said. "Throw something more at them, but don't for a minute think there's something magical about it."

He urged Vermont to wait for bigger states, such as New York, to pass the first climate Superfund bills and face the ensuing legal onslaught.

Advocates acknowledged the bill will face legal challenges, but said that's not a reason to pause their efforts.

"Vermont is already paying through the nose for the climate crisis," Walsh said. "The sooner we pass a law like this, the sooner we could actually see these companies be held financially accountable."

Citation: Lawmakers hope to use this emerging climate science to charge oil companies for disasters (2024, April 29) retrieved 18 May 2024 from https://phys.org/news/2024-04-lawmakers-emerging-climate-science-oil.html