Despite California climate law, carbon emissions may be a shell game

November 4 2014, by Evan Halper And Ralph Vartabedian, Tribune Washington Bureau

California's pioneering climate change law has a long reach, but that doesn't mean all its mandates will help stave off global warming.

To meet the requirement that it cut carbon emissions, for example, Southern California Edison recently sold its stake in one of the West's largest coal-fired power plants, located hundreds of miles out of state.

But the Four Corners Generating Station in New Mexico still burns coal - only the power that Edison once delivered to California now goes to a different utility's customers in Arizona.

Similar swaps are taking place at coal plants throughout the West, and they underscore the limitations California faces as it tries to confront climate change in the absence of a coherent federal plan.

The Obama administration has proposed a nationwide policy on power plant emissions, but it won't begin taking effect for at least two years. And even then it won't hold other states to the strict standards California imposes on itself.

In the meantime, greenhouse gas emissions that Californians are paying a lot of money to suppress are reemerging elsewhere.

"The California utilities are selling out their ownership in these plants, but the plants are still burning the coal," said Jeremy Nichols, climate and energy director at WildEarth Guardians, an environmental advocacy group. "The carbon is just on someone else's hands. It is not being reduced."

California regulators say they have taken steps to prevent utility company executives from outwitting them and insist state rules will lead to real reductions in carbon dioxide, the main gas scientists blame for global warming. But officials concede their efforts have run up against the limits of California's ability to control what takes place outside its borders, a point the utilities also emphasize.

"California does not have the power to regulate what happens outside of the state," said Gary Stern, director of regulatory policy at Edison. "When we sold Four Corners, we were no longer responsible for the emissions of that plant."

The conflict flows from California's reliance on out-of-state power plants for nearly a third of its electricity.

For decades, massive amounts of low-cost power have flowed into the California power grid from coal plants in Utah, New Mexico and Nevada. Now utilities, including those owned by the state and some California cities, are selling their stakes in those plants or ending long-term contracts to buy power as they scramble to meet a mandate to reduce carbon dioxide emissions to 1990 levels by 2020.

But the shift has sparked a debate among environmentalists, industry officials and regulators over how hard the state should push to not just sever its connection to the emissions, but to eliminate the pollutants altogether.

"This gets to the heart of whether states can limit carbon emissions on their own," said Jim Rossi, a professor at Vanderbilt law school who specializes in energy law. "If reductions in California are resulting in increases elsewhere, I am not sure the state's goals are being met."

Originally, California's climate change policies included a provision that would have demanded utility executives swear under penalty of perjury that the actions they took to reduce emissions would not result in a spike in greenhouse gases someplace else.

But federal officials warned Gov. Jerry Brown that too aggressive an effort to control emissions across state lines would risk disrupting the complex interstate electricity system.

In the end, the California Air Resources Board - which oversees the state's 2006 climate change law - allowed utilities a dozen "safe harbor" conditions under which electricity companies would be permitted to shift emissions to nearby states.

Critics called the conditions loopholes.

The board "was struggling with what it could do in enforcement," said James Bushnell, a University of California, Davis expert in energy economics. "It was a tough issue."

The exemptions are so broad, the board's own advisory committee cautioned, that all the reductions in greenhouse gas emissions made by electricity companies could end up existing only on paper.

"If you use enough of those safe harbors, you can shuffle your way out of all your obligations," said Severin Borenstein, a UC Berkeley economist who advised the board.

But California regulators have said the Four Corners example is hardly evidence of failure. They noted Edison negotiated the sale of its share of the plant before the state's emission caps were imposed, meaning future deals should be more rigorous.

Michael Gibbs, the Air Resources Board's assistant executive officer, said the law was crafted to prevent emissions from merely being shifted to other states. "We don't think at this point there is any evidence it is going on," he said. "But we will remain vigilant."

APS Inc., the Arizona-based utility that bought Edison's holdings at Four Corners, reduced emissions by closing three older coal-fired units on the premises, Gibbs said. He acknowledged, however, that those units might have been forced to close by the federal Clean Air Act regardless of the deal with Edison.

Other major California utilities, including the Los Angeles Department of Water and Power and the state Department of Water Resources, have reduced their carbon footprints - at least on paper - by off-loading investments in Arizona and New Mexico coal plants, according to an analysis by Danny Cullenward, a research fellow in energy economics and climate policy at UC Berkeley.

Keeping tabs on precisely how much carbon dioxide is getting removed from the air as a result of California's climate change law may prove impossible. Power comes into the state from all over the West, and tracking the origin of each electron would be like tracking each droplet in the state's water system.

California power plant owners complain that they are competing at a disadvantage because out-of-state firms find ways to send in cheap, coal-generated energy without labeling it as such. State rules allow companies to avoid specifying which plants are shipping electricity. So the power could as easily be generated by coal from Wyoming as wind from Oregon.

"It discriminates against generators in California that are doing the right thing," said Jan Smutny-Jones, chief executive of the Independent Energy Producers Association, a trade group. "But we are also not getting the carbon reduction, because we have out-of-state generators sending dirty power into the state."

Yet stricter policing of energy imports could drive up costs and throw the energy market out of whack.

California officials - and some environmentalists - argue such concerns will fade as the Obama administration executes its recently unveiled plan to force all states to lower power plant emissions. Others caution that the administration's plan will give states wide latitude to take their own approaches at their own pace and, as a result, won't force reductions as quickly as California's law would.

"A lot of people say: 'Don't worry about it, we will break a few eggs on the way to getting this done, but eventually all the other states will join California,' " Cullenward said.

"But from a practical, political perspective, there is almost no prospect for a state like Arizona adopting the kind of strict rules we have in California."

Citation: Despite California climate law, carbon emissions may be a shell game (2014, November 4) retrieved 20 June 2024 from https://phys.org/news/2014-11-california-climate-law-carbon-emissions.html