The U.S. Environmental Protection Agency (EPA) has captured the attention of the energy world with its proposed regulations to reduce greenhouse gas emissions from existing power plants – and for good reason. The EPA's authority is broad and its resolve to address climate change is evident. But other federal agencies are in a position to make a difference, as well – most notably the Federal Energy Regulatory Commission (FERC).

FERC is the agency that sets rates for wholesale power and most transmission service. It also grants licenses for hydroelectric facilities. In a new report issued jointly by Berkeley Law's Center for Law, Energy & the Environment and the Berkeley Energy & Climate Institute, my co-author Romany Webb and I highlight numerous things that FERC could do, under existing law, to address climate change.

Perhaps most controversial among our findings is the conclusion that FERC could add a carbon charge to wholesale power rates. Its authority to do this is bound to its obligation, under the Federal Power Act, to ensure that wholesale rates are just and reasonable. Traditionally, it would do this by looking at the generator's underlying cost and then approving rates that would provide an opportunity to earn a reasonable return on capital investment. But with the push for deregulated energy markets starting in the 1990s, FERC concluded that power rates negotiated by participants in a competitive market would be presumed to be just and reasonable, eliminating the need to for a cost-based determination.

FERC has always acknowledged that it can't rely on deregulated prices where there are market failures. Its focus, generally, is on the exercise of market power: if a seller can manipulate the price, rather than act as a "price taker", that is a market failure, and FERC's presumption doesn't apply. But there is another kind of market failure that is pervasive: the ability of polluting generators to avoid paying the cost of that pollution. How can rates be just if clean power producers must compete with dirtier ones that pollute for free? How can rates be reasonable if society as a whole is left to pay the price for the resulting damage?

FERC can at least partially restore balance by requiring that wholesale rates include a carbon adder. It could then redistribute the excess revenue among wholesale purchasers in a manner not tied to that buyer's specific purchases. FERC has allowed sellers to over-collect in other circumstances, and then refund the excess. For instance, FERC allows transmission providers to charge a higher-than-average fee for power lost during transmission, and courts have allowed that practice to stand. A FERC-required carbon adder could complement EPA's power plant rules, or stand on its own.

Here is a summary of some of our other findings:

• FERC can promote more renewable generation by facilitating the development and use of feed-in tariffs that guarantee renewable generators a specified price for their power.

• FERC can encourage the development of offshore hydrokinetic projects by simplifying the approvals process for such projects.

• FERC can require electric utilities to expand their transmission capacity to serve renewable power systems. Additionally, FERC can encourage utilities to voluntarily invest in such expansions by changing its transmission cost recovery rules to allow for broader allocation of investment costs.

• By encouraging utilities to consider all possible resource options, integrated resource planning may lead to greater use of renewable generation, energy efficiency, and other environmentally friendly resources. Recognizing this, FERC may require utilities to adopt a fully integrated approach when preparing regional transmission plans. Additionally, FERC can also foster greater cooperation and information sharing between utilities during the planning process.

• FERC can mitigate greenhouse gas emissions from natural gas production, transportation, and use by requiring natural gas companies to report on the climate impacts of their operations and to take appropriate steps to minimize those impacts.