

## **Clean Energy, Dirty Air: A Policy Coordination Problem between Renewable-Based Electricity Programs and Cap-and-Trade Pollution Programs**

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**Summary.** Two types of programs—utility-based green electricity programs and state-based renewable portfolio standards—are leading to major expansions in generation of renewable-based electricity. These programs are intended to displace the production of fossil-fuel-based electricity and, consequently, to reduce emissions of carbon dioxide and conventional air pollutants. However, for pollutants regulated through cap-and-trade programs (SO<sub>2</sub> and NO<sub>x</sub>), additional generation of renewable-based electricity might not result in corresponding emission reductions. Current programs and laws appear *not* to require retirement of tradable permits when renewable-based electricity is generated. The aggregate cap remains intact.

This research proposes to investigate this policy coordination problem in conceptual, legal, and empirical terms. Conceptually, we will establish the logic of the coordination problem for the cases of green electricity programs and renewable portfolio standards. Legal research then will establish that laws and programs overlook this when establishing green electricity programs and renewable portfolio standards. Lastly, we will construct a database of individual electric utilities and electricity providers to produce evidence that some individual companies are not retiring tradable permits in the circumstances at issue. The key is to identify companies that are *buying* tradable pollution permits for compliance with an environmental regulation, while simultaneously operating a green electricity program or complying with a renewable portfolio standard.

The anticipated product will be an article in an environmental law journal (*Harvard Environmental Law Review* or *Ecology Law Quarterly*) or an energy journal (*Energy Policy*).