

WRI FACT SHEET

Enabling States to Achieve Real Carbon Emission Reductions

U.S. States have been leaders in addressing climate change through a wide range of energy, environmental, land use and transportation policies. As the United States Congress moves closer to enacting federal cap-and-trade legislation for greenhouse gases, lawmakers should carefully consider how to preserve robust state action in a manner that complements and does not compromise the federal cap-and-trade program. If a state's ability to innovate and achieve reductions in emissions from capped entities is to be preserved after a federal cap-and-trade program is implemented, then the federal program will need to remove federal greenhouse gas emission allowances¹ from circulation (i.e., retire them) to reflect state-achieved reductions. If allowances are not retired to reflect these emission reductions, then state actions would merely free up allowances for sale in another state, resulting in no net environmental benefit from state actions.² This dynamic is sometimes referred to as emissions "leakage" from one state to another.

OPTIONS

Working with its state partners, WRI has identified five basic options for addressing the emissions leakage problem. They are:

1. If states are allocated greenhouse gas emission allowances, then let states retire these allowances at their discretion.
2. Provide for the retirement of allowances from federal allowance pools, perhaps through a set-aside, upon a demonstration by the state that they have achieved reductions beyond those achieved by the federal cap-and-trade program.
3. Combine the above two options.
4. Allow states to require regulated entities to surrender additional allowances for each ton of emissions (e.g., each 1 ton of emissions would require the submission of 1 allowance to the federal government, and 0.1 allowance to the state).
5. Allow states to require regulated entities to surrender additional offsets for each ton of emissions (e.g., each 1 ton of emissions would require the submissions of 1 allowance to the federal government, and 0.1 offset to the state).

To date there has been some hesitancy to retire federal emission allowances to account for state-achieved reductions out of fear that doing so could raise the price of remaining allowances. However, it is possible to retire allowances without increasing allowance prices. First, with careful accounting, state-achieved reductions can be distinguished from reductions the federal program would have achieved in the absence of state action. Second, as long as the retirement provision allows retirement of allowances only for state-achieved reductions, then the supply of allowances will be reduced precisely by the decrease in demand for the allowances, resulting in no upward pressure on allowance prices.

State-achieved emissions reductions through energy efficiency investments provide a clear example. When a state invests in end-use

electricity efficiency, the amount of electricity consumed in the state decreases along with the emissions from power plants serving the states' electricity consumers. If one assumes that reductions through end-use energy efficiency are not likely to be achieved through a price signal alone,^{3,4} then it is fair to conclude that the state has achieved emissions reductions that would not have occurred by virtue of the federal price on greenhouse gas emissions. If federal allowances are retired to account for these incremental reductions from the state energy efficiency program, then federal allowance prices will not increase. This is because the state-achieved reductions have simultaneously reduced demand for federal allowances.

Other approaches to retiring federal allowances to validate state-level reductions also have promise, though these other approaches are expected to have some impact on federal allowance prices. A provision that allows a state full discretion to retire federal allowances from the state's own allowance pool, for example, would provide the opportunity to reduce the federal cap for any reason. If those allowance retirements are equal to state achieved reductions, then allowance prices will not be affected. Meanwhile, if allowances are retired beyond what is needed to account for state-achieved reductions, then federal allowance prices will increase. However, it is important to note that states would be under political and economic pressure to utilize the allowance value rather than lose the value through retirement. For example, they might be pressured to give the allowances for free to regulated entities or to auction the allowances and use the money for energy efficiency investments or other programs.

Alternatively, states could simply require that capped entities turn in additional allowances at the end of a control period when they demonstrate compliance with federal emission requirements. For example, a source could be required to submit 1 ton of allowances for every ton of emissions to demonstrate compliance with the federal program, and 0.1 allowance for every ton of emissions to demonstrate compliance with the state program. This approach has the benefit that it does not require the forfeit of allowances from state or federal allowance pools. However, its impact on the price of allowances and offsets is less clear, and will ultimately be tied to the level of reductions the policies achieve.

EVALUATION OF OPTIONS

In the forthcoming Issues Brief, *Keeping the Lights on in the State Laboratory: Enabling States to Achieve Reductions through Retirement of Federal Cap-and-Trade Allowances*, WRI evaluates several approaches to account for state-achieved reductions and address the

state-to-state leakage problem under a federal cap-and-trade program. Key findings are highlighted in the table below.

CONCLUSION

A number of mechanisms are available to retire the allowances to account for state-achieved reductions, and any of the options outlined in the paper are workable. All but one of them have already been included in various federal proposals. The one method not contemplated in federal proposals is perhaps the most promising from the perspective of states. That is the retirement of allowances out of a federal allowance pool upon a showing that the state-achieved reductions are incremental to the reductions that would otherwise have occurred. This method provides states with the ability to make real additional reductions without increasing federal allowance prices.

In the event Congress grants states discretionary pools of allowances, it should consider also allowing states to retire all or a limited portion

of those allowances. In addition, states could be allowed to heighten the market drivers for mitigation by requiring certain in-state facilities to submit additional allowances or offsets for compliance. By raising the marginal cost of emitting greenhouse gases, this would increase the incentive to invest in carbon-abating technologies at these facilities.

NOTES

1. An *allowance* is a government-issued limited authorization for a regulated entity to emit up to one ton of carbon dioxide equivalent emissions. Allowances are issued up to the total number of tons allowed by the mandatory emissions cap.
2. See *Federalism in the Greenhouse: Defining a Role for States in a Federal Cap-and-Trade Program*, by Franz Litz and Kathryn Zyla, World Resources Institute (2008).
3. *The Carbon Productivity Challenge: Curbing Climate Change and Sustaining Economic Growth*. McKinsey & Company. June 2008.
4. *Positive Returns: State Energy Efficiency Analyses Can Inform U.S. Energy Policy Assessments*. John A. Laitner and Vanessa McKinney. American Council for an Energy-Efficient Economy.

	Options				
	OPTION 1. State Retires From Its Own Pool of Allowances	OPTION 2. Retirement From Federal Allowance Pool Upon Demonstration That Reductions are Beyond Those Achieved by Federal Program	OPTION 3. Combination of State and Federal Allowance Retirement Pools (Options 1 & 2)	OPTION 4. State Requires Surrender of Additional Allowances by Regulated Entities	OPTION 5. State Requires Surrender of Additional Offsets by Regulated Entities
Likelihood States Will Implement	Low	High	See Options 1 & 2	Moderate	Moderate
Impact on Allowance Prices	May increase if retirements do not correspond with actual reductions	No impact	May increase if retirements from state pools do not correspond with actual reductions	May increase or decrease	May increase or decrease
Impact on Value of Allowance Pools for Non-Acting States and Federal Allowance Pools	Value may increase or remain constant	No impact on non-acting states. Federal pools will decrease	Depends on relative mix of Options 1 & 2	May increase or decrease	May increase or decrease
Administrative Burden	Low	High unless pre-approved list of eligible state reductions is developed	Mixed, see Options 1 & 2	Low	Low
Legislative Precedent	Included in Lieberman-Warner	Not included in previous federal proposals	See Options 1 & 2	Included in McCain-Lieberman, Lieberman-Warner, & Waxman-Markey	Included in McCain-Lieberman, Lieberman-Warner, & Waxman-Markey

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