

October 26, 2012

Ms. Nicole Singh  
Regional Greenhouse Gas Initiative Inc.  
90 Church St. 4<sup>th</sup> Floor  
New York, NY 10007

Dear Ms. Singh:

As researchers at Resources for the Future, we are grateful for the opportunity to provide comments at this time and we welcome the opportunity to provide input as RGGI continues to evolve. The views expressed here do not represent those of Resources for the Future, but those of the undersigned only. We would like to address one specific element of the current review of the RGGI program, which is the sharing of information and the harmonization of administrative and technical functions with other jurisdictions that are developing regulatory programs to limit the emissions of greenhouse gases.

One central reason to promote cooperation with other jurisdictions outside RGGI stems from the recognition that mitigating greenhouse gases is a global concern. Ultimately, jurisdictions will have to cooperate in their efforts to reduce emissions to successfully mitigate damages from climate change. The simplest way to begin this cooperation may be to explore, and where feasible promote, a harmonization of administrative and technical functions. Some examples of functions that might be developed with other jurisdictions or programs, among U.S. states and other subnational and national efforts, include:

- Data systems for emissions reporting
- Measurement, reporting and verification of emissions
- Penalties and enforcement provisions
- The point of regulation
- Protocols for qualification of offsets as a compliance mechanism
- Accounting systems for compliance
- Auction platforms and design including rules on eligibility and financing requirements
- Registry standards
- ...and many others.

Harmonizing these functions may set the stage for greater mutual recognition of programs in the future, help develop a sense of momentum around inter-jurisdictional cooperation, and potentially reduce costs.

Furthermore, harmonized functions may have one other important value, related to the expected promulgation of new source performance standards for existing sources (referred to as existing source performance standards or ESPS) under section 111 of the Clean Air Act (CAA). If states have developed harmonized functions, it will strengthen the influence that RGGI and partner jurisdictions can have on the process to develop these regulations at the U.S. EPA.

The main challenge the ESPS creates for RGGI is the issue of equivalency. To the extent that RGGI desires to be deemed equivalent by the EPA, we feel it would benefit by prioritizing the sharing of its expertise with other states. In addition, modification of certain program details might increase the chances of the EPA deeming RGGI equivalent to ESPS. While the EPA's overall stance on equivalency for RGGI is unclear<sup>1</sup>, it seems that a likely prerequisite for equivalency is a binding cap that results in RGGI allowance prices above their current level.<sup>2</sup>

The main opportunity the ESPS creates for RGGI is the prospect of a broader market for carbon reductions. RGGI might incur benefits from the ESPS to the extent that the ESPS induces additional reductions in states without carbon pricing policies.

In summary, RGGI is likely to benefit from sharing its expertise and harmonizing administrative and technical functions with other jurisdictions. Again, we are grateful for the opportunity to comment and look forward to future opportunities to provide input.

Sincerely,

Dallas Burtraw

Clayton Munnings

Karen Palmer

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<sup>1</sup> Richardson, Nathan. *Playing without ACES: Offsets and the Limits of Flexibility Under Clean Air Act Climate Policy*. Working paper no. DP 11-49. Resources for the Future, Dec. 2011. Web. <<http://www.rff.org/RFF/documents/RFF-DP-11-49.pdf>>. See page 39.

<sup>2</sup> Litz, Franz, Nicholas Bianco, and Michael B. Gerrard. *What's Ahead for Power Plants and Industry? Using the Clean Air Act to Regulate GHGs, Building on Regional Programs*. Rep. World Resources Institute, Feb. 2011. Web. <<http://www.wri.org/publication/whats-ahead-for-power-plants-and-industry>>. See page 17.

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Dear Ms. Singh:

As researchers at Resources for the Future, we are grateful for the opportunity to provide comments at this time and we welcome the opportunity to provide input as RGGI continues to evolve. The views expressed here do not represent those of Resources for the Future, but those of the undersigned only. We would like to address two specific elements of the current review of the RGGI program, which are the cost containment reserve and price floor.

There are many good arguments on behalf of a symmetric cost containment mechanism that responds automatically to unexpected trends in prices. The mechanism RGGI is considering includes a price floor in the auction and a soft price ceiling defended by a cost containment reserve. The ceiling is “soft” because it offers a limited amount of additional allowances at a specified price; in contrast a “hard” ceiling would offer an unlimited amount.<sup>1</sup> An issue in the design of the mechanism is how the price triggers associated with the floor and ceiling should change over time.

A standard approach would be to have the floor and ceiling adjust at rates that reflect the opportunity cost of capital, or the discount rate, for investors. The reason for this stems from the efficient management of a resource over time. In this case, the resource is emissions (or emissions allowances). Two useful papers in the economics literature develop the justification for a discount rate that causes allowance prices to rise over time (Cronshaw and Kruse, 1996; Leiby and Rubin, 2001).<sup>2,3</sup> The reasoning is basically that holding an emissions allowance substitutes for holding funds in an alternative investment. If the rate of return on the alternative is greater than the rate of return on holding an allowance, one would use up allowances today (or sell them) and buy the alternative. This would leave fewer allowances for tomorrow, driving up their price. This arbitrage process would continue until the rates of return on the two investments were equal. Similarly, if the rate of return on allowances were greater than the alternative, one would take money out of alternative investments to reduce emissions today and hold allowances. This would increase allowance supply in the future, drive down future allowance price and decrease the rate of return on holding an allowance. This is the reason one would expect the price floor and the price ceiling to increase over time. As a point of comparison, California is using a rate equal to 5% plus inflation on its price floor and ceiling.

The next question is the optimal rate of return on holding allowances. The answer will depend on many factors, including their risk as an asset, and has implications for the time profile of emissions reductions within the program. A low rate suggests that more emissions reductions should be made early in the

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<sup>1</sup> Fell, H, D. Burtraw, R. D. Morgenstern, K. L. Palmer, 2012. [Soft and hard price collars in a cap-and-trade system: A comparative analysis](#), *Journal of Environmental Economics and Management*, 64(2):183-198.

<sup>2</sup> Cronshaw, M.B. and J.B. Kruse. 1996. “Regulated Firms in Pollution Permit Markets with Banking” *Journal of Regulatory Economics* 9(2):179-89.

<sup>3</sup> Leiby, P. and J. Rubin. 2001. “Intertemporal Permit Trade for the Control of Greenhouse Gas Emissions,” *Environmental and Resource Economics*, 19(3): 229-256.

program to achieve an efficient (least cost) outcome over the life of the program. Conversely, a high rate suggests that the costs of emissions reductions should be delayed longer. As a point of comparison in other analysis, the EIA Waxman-Markey document mentions the discount rate of 7.4%.<sup>4</sup> With lower interest rates today than were in place previously, the optimal discount rate might be lower.

Again, we are grateful for the opportunity to comment and look forward to future opportunities to provide input.

Sincerely,

Dallas Burtraw

Matt Woerman

Clayton Munnings

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<sup>4</sup> See page 73: [http://www.eia.gov/oiaf/servicerpt/hr2454/pdf/sroiaf\(2009\)05.pdf](http://www.eia.gov/oiaf/servicerpt/hr2454/pdf/sroiaf(2009)05.pdf)