SUMMARY OF RGGI STAKEHOLDER WORKSHOP ON GHG OFFSETS

This summary provides a review of a workshop organized by three members of the RGGI Resources Panel (the Pew Center on Global Climate Change, Resources for the Future, and the World Resources Institute) on June 25, 2004. The session was attended by approximately 90 individuals, including many members of the stakeholders group. The summary is organized around the major themes raised in presentations across the panels.

Summary

An offset represents an emission reduction obtained outside of a well-defined cap-and-trade program that can then be used to "offset" increased emissions under the cap. Offsets offer vast potential to reduce the costs and expand the incentives associated with an emissions trading system. Relatively cheap reductions outside the cap can be substituted for more expensive reductions under the cap, saving money while maintaining a given level of overall (capped and uncapped) emissions. Wherever offsets are allowed, they extend the reach of a cap-and-trade program by encouraging reductions by sectors and players beyond the capped entities.

This positive potential is unfortunately matched by significant challenges and risks associated with practical implementation. Many of these center on the issue of additionality and the need to agree on appropriate quantification protocols that will assure that offsets deliver reductions that are equal to the reductions that regulated facilities would otherwise make. That is, what is the baseline from which emission changes are measured and credited as offsets? This need arises in addition to the monitoring and verification requirements associated with ordinary sources under the cap.

The workshop suggested that while there is a substantial body of experience from which to draw lessons about offset program design, no fully satisfactory model exists for the RGGI to emulate. This is both a challenge and an opportunity. While forcing the RGGI to stake out new ground, several workshop participants noted that one of the most important contributions of the RGGI effort could be the development of a sensible offset program that serves as a model for a future federal policy.

Developing a full-fledged offset program is an enormous task that could easily drain RGGI staff resources. For that reason, many participants felt that a practical action would be to start small and expand incrementally. While existing offset programs such as the Clean Development Mechanism (CDM) and the Oregon Climate Trust have embraced a case-by-case approach to quantifying offsets, most workshop participants indicated an interest in—and in many cases a strong preference for—using performance standards or other standardized approaches to establishing additionality, establishing baselines and measuring reductions.

Major Themes

Offsets offer significant opportunities to reduce costs and broaden the impact of a cap-and-trade program.

In the opening presentation, Joe Kruger (RFF) highlighted cost-reduction potential, noting that an analysis of the European Union Emission Trading System (EU ETS) indicated that reduction opportunities outside the ETS could lower allowance prices by 50% if utilized as offsets. He also showed estimates of CO_2 abatement opportunities outside the power sector, non-CO_2 opportunities, and sequestration potential for both the United States and the world—all of which indicated substantial opportunities for inexpensive emission reductions outside a system focused on US electric utilities. Maurits Henkemans (Finance Ministry, Netherlands) noted that the Dutch government decided in 1998 that 50% of its Kyoto commitment would be met by government purchases of offsets—and those have turned out to be 4-8 times cheaper than domestic reductions. Mike Burnett (Oregon Climate Trust) argued that offsets offered the only practical way to reduce emissions from existing sources in Oregon without expensive fuel switching or output reduction activities. Karl Schultz (Climate Mitigation Works) noted that the bulk of the volume of credits currently trading are for non-CO_2 gases, including from fugitive emissions of methane (from landfills, coal mines, natural gas pipelines and manure), HFCs, PFCs, and SF_6 from various industrial processes. He argued that these would be difficult to include under a cap.

These presentations yield two key points: First, for trading programs focused on the power sector—or even large point sources of carbon dioxide more generally—offsets offer vast potential to reduce the costs of obtaining a given reduction in emissions. The potential for offsets, especially internationally, has raised concerns that emission reduction programs might not "do enough at home." Such concerns have typically been trumped by the reality that achieving targets solely using domestic emission reductions can be too expensive, and that cheaper emission reductions eventually translate into more emission reductions and better environmental outcomes. In the EU ETS, for example, Maurits Henkemans explained that despite the initial 6% cap on offsets—reflecting this concern—recent decisions allow individual member states to decide whether or not to cap offsets.

Secondly, offsets provide incentives to reduce emissions in sectors and activities where caps may not be practical. For example, measuring total fugitive methane emissions from a landfill may be difficult and costly. In contrast, measuring an emission reduction from a landfill (i.e., the amount of gas captured for use or flaring) is feasible. Thus, offsets provide a way to create incentives for these types of reductions.

There are, however, some caveats. One was offered by Dale Bryk (NRDC), who noted that offsets are just one way of encouraging reductions outside a cap-and-trade system. She argued that alternatives might also include opt-ins and allowance set-asides. For the RGGI in particular, opt-ins may be a potentially better approach for dealing with stationary CO_2 sources outside the power sector where bringing them into the cap is

feasible, although allowing for individual sources to opt in carries some of the same administrative challenges as does including offsets.

Practical issues surrounding the implementation of an offset program imply a much smaller universe of realizable offsets.

There are a number of issues surrounding the practical implementation of an offset program, including eligibility, liability, additionality, leakage, and permanence. Eligibility reflects a policy choice about what kinds of activities to consider for offsets. For example, eligibility might be restricted to activities in particular regions, countries or economic sectors.

Liability rules, as emphasized by Ben Feldman (Natsource), play a crucial role in the valuation of offsets because such rules determine whether offsets are just as good as ordinary allowances under a cap-and-trade system. Offset buyers, for example, might be held liable if the underlying project fails to perform as contracted. This "buyer liability" requires buyers to discount the value of an offset by the risk associated with some kind of default. In contrast, the government can hold the seller liable, creating offsets that are perfectly fungible with allowances. Arguments for both approaches exist: seller liability encourages a more fluid market; buyer liability additional pressure for environmental integrity. As a practical matter, most systems (EU ETS, Kyoto Protocol) have adopted seller liability. An argument was also made that U.S. commercial law supports seller liability. Finally, Oregon's approach, where the utility obligation ends with the paying of a $0.85 per ton fee to the Climate Trust, is in a sense another form of seller liability.

By far the most difficult issue surrounding offset implementation is determining how to quantify offsets for a particular project—that is, defining the baseline from which reductions can be measured. This is referred to as additionality—the degree to which the offsets represent reductions that are *additional* to what would have occurred otherwise. Two broad approaches were articulated: (1) a case-by-case, project-specific approach and (2) reliance on common performance standards or other standardized approaches (e.g., use of standardized methodologies or criteria that can be applied to all projects of a given type in a given geographic region.) The standardized approach requires a larger upfront investment to develop the standards or methodologies, but then tends to be much easier to apply. A case-by-case approach avoids the up front cost but creates higher costs for each project as each one requires a distinct exercise to review each project's baseline and the methodology for quantifying the "additional" reductions. Neither approach is guaranteed to provide absolute assurances of additionality. The standardized approach depends upon the stringency with which the standard or method is set. The project-specific approach depends on project-specific arguments (which themselves may depend on external standards). All approaches involve subjective decisions, but in standardized approaches the subjective decisions are made generically, up front. Most presenters, including those with offset experience (Janet Ranganathan, Maurits Henkemans and Mike Burnett), revealed a preference for a standardized approach where it is practical—though Ms. Ranganathan (WRI) noted it may not be practical to have standards in many cases. Panelists also noted that the up front costs of standardized approaches imply that

the RGGI should start with a small and simple effort and grow slowly. It was recommended that any approach should be flexible and open to new standards or standardized approaches as time, technology, and offset volume dictate.

A final hurdle, permanence, was emphasized by the discussion of agriculture and forestry offsets by Neil Sampson (The Sampson Group). Unlike emission reductions and avoided emissions, offsets in agriculture and forestry involve increased storage of CO_2 in soils and biomass. While the potential for such increased storage is vast, it raises the question of what happens if the storage is breached—if the forest burns and is not allowed or encouraged to regrow. Sampson indicated that one solution for permanence is to hold diversified portfolio of such offsets, reducing the risk of significant loss. Storage should also be intermittently re-verified, perhaps every ten years or so. Several participants reflected that forest and agriculture offset projects have multiple potential benefits and any program including such offsets should be sensitive to other environmental concerns, such as biodiversity and respect for native species.

In summary, general optimism concerning the large potential for offsets must be tempered by the serious challenge of assuring additionality and developing credible, environmentally-sound quantification protocols. Workshop participants emphasized the need to go slow, start with simpler examples, increase incrementally, and as much as possible, avoid making mistakes.

Administrative burden of an offset program—both among market participants and the regulatory authority—are an important consideration.

Ken Colburn (NESCAUM) highlighted the concern about how project evaluation and/or the development of standards create a significant burden on the regulatory authority. A more careful screening effort is inevitably more resource intensive. Others (Jonathan Pershing, WRI) noted that some of this burden can be alleviated through the use of third-party verifiers and resources. It was also noted that a fund could be created to recoup administrative costs from project developers.

While it was suggested that RGGI might adopt the CDM rules for defining offsets, it was also noted that doing so would miss an important opportunity to pursue a standards approach. On the other hand, developing a separate standards approach need not rule out accepting CDM credits for compliance in the RGGI program, even if RGGI has developed a different approach.

Most existing offset programs—e.g., the CDM and the Oregon Climate Trust—use a case-by-case approach to quantifying offsets. Other programs have made some use of standardized methodologies. A standards approach could be more effective in some cases. The development of an offset program based on standards and standardized methodologies could be one of the most important contributions of the RGGI process to a future federal program.

A key hurdle right now for offset generation under the Kyoto Protocol and the EU ETS is the case-by-case approach to approving and quantifying offsets. None have been approved by the CDM Executive Board; yet, as Joe Kruger pointed out, more than 1700 projects would be required to satisfy estimated world demand based on estimates of a "typical" project size. Meanwhile, the Prototype Carbon Fund (PCF) and Dutch government have almost single-handedly created a market for project-based credits—even before they are deemed to be offsets (the Dutch government represents about 40% of world demand; the PCF 20%).

As Maurits Henkemans pointed out, while governments may be willing to finance projects without being assured they will eventually be approved, the private sector may not. Both he and Ben Feldman expressed the need for clear rules from the start. That is, investors should have a reasonable idea of what constitutes an offset project and what does not. Such clear rules are at odds with the case-by-case approach, which requires a project to be proposed before a determination is made about its eligibility.

A regional trading system focused on the power sector could look different from a broader, federal trading system involving other large point sources (and possibly transportation). In particular, the potential need to address interstate emissions leakage with a regional program and the likely pressures affecting multi-sector allocation with a broader, national program, suggest the regional and federal programs would need to adopt different approaches. However, a regional offset program could easily be scaled up to a federal level—especially if it was focused on emission sources unlikely to fall under even a broad cap-and-trade program (fugitive sources, agriculture and forestry, and developing countries). At the same time, the offset programs pursued so far (e.g., the CDM and the Oregon Climate Trust) have eschewed a standards approach, which many workshop participants saw as promising. For these reasons, coupled with the overall importance of offsets, the RGGI has an important opportunity to develop a model offset program.