



Improving EPA's Performance with Program Evaluation

An Evaluation of the SCAQMD Regional Clean Air Incentives Market: Lessons in Environmental Markets & Innovation

Series No. 4

By continuously evaluating its programs, EPA is able to capitalize on lessons learned and incorporate that experience into other programs. This enables the Agency to streamline and modernize its operations while promoting continuous improvement and supporting innovation. This series of short sheets on program evaluation is intended to share both the results and benefits of evaluations conducted across the Agency, and share lessons learned about evaluation methodologies in this evolving discipline. For more information contact EPA's Evaluation Support Division at www.epa.gov/evaluate.

At a Glance

Evaluation Purpose

To investigate causes of increases in RECLAIM trading credit prices and program effectiveness.

Evaluation Type

Outcome Evaluation

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Partners

EPA Region 9 (San Francisco) Air Division

Contacts

Ken Israels, Region 9 (415) 947-4102;
Richard Grow, Region 9 (415) 947-4104

Web Link

<http://www.epa.gov/region09/air/reclaim/index.html>

Background: Why was an evaluation performed?

Adopted in 1993, RECLAIM, the Regional Clean Air Incentives Market, is a federally approved "emissions trading program" developed and implemented by the South Coast Air Quality Management District (SCAQMD) in EPA Region 9. RECLAIM sets a factory-wide pollution limit for participating facilities that emit sulfur oxides (SO_x) and nitrogen oxides (NO_x). As part of the program, businesses decide what equipment, processes, and materials they will use to meet their emission limits. Facilities that successfully reduce emissions more than required can sell or trade air pollution credits to other companies that need more time to clean up their emissions or that find the cost of buying credits cheaper than buying and installing new equipment. No matter who buys or sells credits, RECLAIM requires that total emissions from all participating companies be reduced each year. Between 2000 and 2001, the prices of RECLAIM credits increased. Additionally, some facilities experienced difficulty meeting emissions levels. As a result, EPA conducted an evaluation to investigate the causes of the events and to examine the

effectiveness of the RECLAIM program. Three key performance questions were posed: (1) whether expected emission reductions were achieved; (2) what type of emission control strategies had been applied by market participants; and (3) whether the program was cost effective overall.

Basic Evaluation Approach: How did they do it?

The evaluation was completed using the four steps outlined below.

- Step I:** Review existing RECLAIM background materials on program implementation and performance.
- Step II:** Conduct interviews with 20 stakeholders representing regulated facilities, environmental organizations, regulatory agencies, and brokerage firms.
- Step III:** Analyze background data and interview results.
- Step IV:** Report findings and lessons learned.

Evaluation Results: What was learned?

The evaluation revealed the following results.

- Market-based programs require significant planning, preparation, and management during development and throughout the life of the program. Market information is a key factor affecting facility decision-making. This includes providing sufficient information about market trends.
- Regulators should strive to create confidence and trust in the market by making a full commitment to the program and ensuring consistency in the market and their policies.
- Unforeseen external circumstances (like energy deregulation) can have dramatic impacts on market-based programs. Therefore, these programs must

be designed to react quickly and effectively to unforeseen external factors. Periodic evaluation, revisiting of program design assumptions, and contingency strategies are crucial to keeping programs on track.

- RECLAIM's experience suggests that a market based approach can work with the Clean Air Act's New Source Review program. This may be a function of the types of sources included or the controls in place at many facilities.
- Regulators need to have a strong understanding of the regulated facilities and the factors impacting companies' decision-making.

Evaluation Outcome: What happened as a result?

The evaluation identified key design features of the RECLAIM program that, if designed differently, might have addressed the unexpected increase in the price of RECLAIM emission credits. Office of Air and Radiation staff are using the lessons learned from the evaluation as they monitor existing programs and consider the development of similar emissions trading programs. The evaluation results are also being used in other forums, such as the Clean Air Act Advisory Committee, which met in November 13, 2002 to inform other innovative regulatory efforts.

Approach for this Evaluation

Step I

Review Existing RECLAIM Background Materials

Step II

Conduct Interviews

Step III

Analyze Resulting Information

Step IV

Report Findings and Lessons Learned