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The Origin and Demise of New Jersey's Open Market Emissions Trading Program

by Devin P. DeMarco

On August 2, 1996, the New Jersey Department of Environmental Protection (NJDEP) promulgated rules governing its Open Market Emissions Trading (OMET) program. With a goal to provide industry with a greater degree of flexibility in meeting federal air compliance directives and simultaneously support the state's progress toward the attainment of federal air standards, this program has now been terminated following scrutiny from the U.S. Environmental Protection Agency (EPA), environmental groups, and a new NJDEP administration.

This Article discusses the basis for this scrutiny and other program flaws discovered through interviews with, and public comments from, NJDEP and EPA officials, industry representatives, environmental advocates, and former members of the New Jersey State Legislature. The results of this work are also placed against the political background that gave rise to open market trading in New Jersey, and may have hindered the program's success. Finally, recommendations are offered for future open market trading (OMT) programs that may help to prevent some of the shortcomings witnessed in New Jersey's initiative.

I. Introduction

When it amended its statewide air pollution regulations in 1995, New Jersey became one of a very small handful of states to give official sanction to an inventive, market-based approach to control air pollution: OMT.¹ More than just a conventional credit swapping plan, New Jersey's OMET program was deemed to be a "national model for making clean air profitable for polluters who reduce their own emis-

sions."² Some effusive commentators labeled it as "one of the hallmarks" of former Gov. Christie Whitman's (R-N.J.) environmental policies and she herself heralded the program at the national level after becoming head of EPA.³

The announcement, therefore, by current NJDEP Commissioner Bradley M. Campbell that the once acclaimed credit trading scheme was "an experiment that failed" was all that more surprising.⁴ As the program is now in the final stages of its phaseout, the decision to end OMT in New Jersey sparks important policy questions: on the basis of the state's failed experience, should we consider OMT to be conceptually flawed and resist further efforts by federal and state policymakers to implement similar initiatives to reduce air emissions? Alternatively, was the program's failure the result of poor implementation and/or careless management by state officials once the program was operational?

Accurate answers to those questions can help to determine whether OMT has a place in the contemporary environmental policy toolkit. Notwithstanding the apparent debacle in New Jersey, EPA claims that OMT has the potential to achieve sizable cost-effective reductions and Robert Ayres⁵ speaks of OMT as a program that avoids the structural and procedural shortcomings of U.S. air policies. There would appear, therefore, to be considerable merit in looking carefully at the demise of New Jersey's OMET program.

This evaluation comes as open market-like programs remain active in Texas, Illinois, Massachusetts, New Hampshire, and Michigan.⁶ All of these programs, including the one in New Jersey, were developed prior to the issuance of

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1. See Robert Ayres, *Developing a Market in Emissions Credits Incrementally: An "Open Market" Paradigm for Market-Based Pollution Control* [Current Developments] *Env't Rep.* (BNA) (Dec. 1994) (providing a detailed conceptual review of OMT).

2. See Alex Nussbaum, *Pollution Credit Trading Arouses U.S. Suspicion; NJ Program Was Considered a Model*, *BERGEN REC.*, Feb. 4, 2002, at A1.

3. See David M. Halbfinger, *Critics Try to Turn Whitman Against Her Emissions Plan*, *N.Y. TIMES*, Feb. 15, 2001, at B5; see also Anthony S. Twyman, *Utility's Air Pollution Settlement Means New Trees for S. Jersey*, *STAR LEDGER*, May 9, 2002, at 44.

4. See Laura Mansnerus, *New Jersey Intends to End Incentive Plan on Pollution*, *N.Y. TIMES*, Sept. 18, 2002, at B1.

5. Ayres, *supra* note 1.

6. Only two states have received EPA approval for their respective OMT programs. Michigan's program was granted final approval in October 1997, and Illinois received official endorsement in October 2001. Michigan actually enacted an open market emissions trading program in 1986, but the state was forced to rework significant parts of it following release of EPA's 1995 Open Market Trading Rule (OMTR).

EPA's final guidance on OMT.⁷ As a result, each state was allowed to customize its particular program and to build in a greater degree of flexibility than normally possible when bound by regimented EPA directives. However, all the existing programs are premised upon the market-based approach to emissions credit trading established in 1995 under the Northeast States for Coordinated Air Use Management/Mid-Atlantic Regional Air Management Association (NESCAUM/MARAMA) demonstration project.⁸

II. The Origins of OMT

Organized in 1993, the NESCAUM/MARAMA project was a joint effort involving industry, environmentalists, and air quality officials that experimented with innovative ways to reduce tropospheric ozone levels in the northeastern United States. To accomplish this, the initiative focused on improving previously established air emissions trading programs by implementing actual credit creation and use strategies. Also, the participating parties were afforded the opportunity to submit constructive criticism on the existing regulatory structure governing emissions trading.⁹

This project's recommendations called for, among other things, the privatization of many civil duties associated with emissions credit trading and the adoption of a more holistic approach regarding emission budget programs.¹⁰ Consequently, the reinvented emissions trading program, identified as an open market approach to trading, would enable a source of air pollution to use market traded emissions credits to comply with air quality regulations in an unprecedented, private manner.

The Clinton Administration viewed the outcomes of the demonstration project quite favorably and hailed OMT as a much needed strategy for moving from public to private oversight that was fully consistent with the White House's program of regulatory reinvention. An EPA Open Market Trading Rule (OMTR) that encompassed the NESCAUM/MARAMA project's recommendations would help to achieve public health standards for ozone at a lower cost and quicker pace.¹¹ Accordingly, work began almost immediately to clear the ground for EPA to move forward on creating credit trading programs modeled on the northeastern demonstration project.¹²

EPA's move to transition OMT from experimental concept to widespread policy, was however disrupted by the need for an immediate change in attitude on the part of federal regulators on how emission trading programs should operate. The intricacies of OMT contradicted previous EPA policy statements such as the 1986 Emissions Trading Statement and the 1994 Economic Incentives Program. For instance, instead of trading reductions that offset same-time emission rates for indefinite periods of time (so-called emission reduction credits), EPA had to endorse OMT programs that traded discrete emission reduction (DER) credits between facilities. This modification would allow firms for the first time to sell temporary, nonpermanent emissions reductions below their baseline levels to other facilities seeking to satisfy temporary or permanent excesses in their allowable emissions.

Furthermore, in contrast to other trading programs that operated under an emissions ceiling, OMT did not impose any limits on the number of credits available for purchase. As a result, firms could conceivably acquire a limitless number of credits, a provision that would enable them to satisfy certain technical standards through the continuous purchase of emissions credits.¹³

Additionally, instead of requirements to use more conventional means to accurately quantify emission credits—for example through the use of continuous emissions monitoring—OMT planners expected states and industry to generate emissions quantification protocols to measure emissions from individual operations.¹⁴ Those protocols were critical as they served to determine how many credits companies would be eligible to receive after additional controls for emissions were in place. The development of such procedures was deemed necessary by participants in the NESCAUM/MARAMA demonstration project in order to create confidence that purported emissions reductions were, in fact, real.

Because New Jersey had been a key member of the NESCAUM/MARAMA initiative, local officials were open to an inventive emissions trading program such as OMT and adoption was, in many respects, a prefigured outcome. In addition to NJDEP, several influential economic entities in the state played major roles in the experimental project including its largest electric utility, Public Service Enterprise Group Inc. (PSEG), and a number of its most visible industrial corporations such as Merck and Hoffman-La Roche. These firms had all been successful in voluntarily reducing their emissions of ozone precursors during the demonstration project and had come away from the experience as strong supporters of a market-based approach.

The incentive for New Jersey companies to partake in the NESCAUM/MARAMA initiative, according to industry officials, was their desire to secure pollution credits that they could later sell or use to expand existing operations.¹⁵ Other inducements, however, were also on the table, most notably the looming impact of a new set of federal pollution control requirements known as reasonably available control

7. See U.S. EPA, IMPROVING AIR QUALITY WITH ECONOMIC INCENTIVE PROGRAMS (2001), available at <http://www.epa.gov/ttn/oarp/t1/memoranda/eipfin.pdf> (last visited Mar. 26, 2004) [hereinafter U.S. EPA, IMPROVING AIR QUALITY].

8. NESCAUM is an interstate association of air quality control divisions located in the northeastern United States. The eight member states are comprised of the six New England states, as well as New Jersey and New York. NESCAUM's purpose is to exchange technical information, and to promote cooperation and coordination of technical and policy issues regarding air quality control among the member states.

9. *Northeast States for Coordinated Air Use Management, NESCAUM/MARAMA Emissions Trading Demonstration Project, Phase III Report* (1995), Boston, Mass.

10. U.S. EPA, Open Market Trading Rule for Ozone Smog Precursors, 60 Fed. Reg. 39668-69 (proposed Aug. 3, 1995).

11. WILLIAM J. CLINTON & AL GORE, REINVENTING ENVIRONMENTAL REGULATION (1995).

12. See Trading Thin Air: EPA's Plan to Allow Open Market Trading of Air Pollution Credits: White Paper from the Public Employees for Environmental Responsibility (PEER) (June 2000) for a critical description of EPA's endorsement of OMT, available at <http://www.peer.org> (last visited Nov. 18, 2004).

13. 60 Fed. Reg. at 39668.

14. DAVID G. HAWKINS, COMMENTS ON THE PROPOSED SIP APPROVAL OF THE NEW JERSEY OPEN MARKET EMISSIONS TRADING PROGRAM (Natural Resources Defense Council, Washington, D.C., 2001).

15. Agis Salpukas, *Companies Agree to Cut Ozone Smog*, N.Y. TIMES, June 30, 1993, at D4.

technology (RACT) that were scheduled to take effect in 1995. The Clean Air Act (CAA) Amendments, passed in 1990, required certain states to develop RACT regulations to reduce emissions of nitrogen oxides (NO_x) and volatile organic compounds (VOCs) and to implement these measures as soon as practicable, but no later than the end of May of that year. In turn, companies subject to this requirement were responsible for installing appropriate pollution control devices. Without easy access to credits to offset their emissions, several large industrial facilities in the state fell behind schedule to meet the deadline and would not have been able to comply.

New Jersey was also among the states required under the CAA Amendments to achieve a 65% reduction in NO_x emissions by 1999. An emissions trading program would, according to industry officials, enable the state “to clean up the air, speed it up, and do it at a reasonable cost.” In the absence of this innovative action, the state would be able to achieve only one-half of the required reduction.¹⁶

The notion of OMT received further inducement from a series of scripted credit transactions due to be conducted under a memorandum of understanding between companies. In March 1994, PSEG announced its intention to sell 500 tons of NO_x credits to Connecticut-based Northeast Utilities. Northeast Utilities would in turn distribute the credits to several hospitals and small factories in its service area that operated aging boilers and were struggling to meet the 1995 standard.¹⁷

The executive director of NESCAUM, Michael Bradley, described the pending transaction between PSEG and Northeast Utilities as a possible “catalyst to a regional market that would help quite substantially in reducing the ozone levels in the summertime.” The Connecticut utility then injected its own sense of urgency into the discussion by openly declaring that the availability of open market-like credits were critical “if we’re going to avoid businesses’ shutting down and moving out of the area.”¹⁸ Despite scrupulous planning, the PSEG-Northeast Utilities transaction never occurred as the Connecticut company withdrew from the deal on the premise that “regulations on interstate trading of pollution rights had not yet been written.”¹⁹

Even in the absence of a formal open market program to advance interstate trading, firms in New Jersey had strong incentives to trade emission credits. In fact, a credit ex-

change did occur in June 1995, between Merck and PSEG that enabled the pharmaceutical company to comply with state and federal RACT requirements. The exchange allowed Merck to purchase up to 75 tons of NO_x credits in 1995 (and each year thereafter until 1998). Some observers were highly critical of this deal—one that had yet to receive the endorsement of NJDEP—and claimed the exchange represented a new service that PSEG could provide to its customers—a right to pollute.²⁰ For its part, Merck retorted that the trade was a “pioneering effort to develop a market-based, regional response to ozone problems in the Northeast.”²¹

However, without a formal trading program in place, firms in New Jersey lacked a legally sanctioned means with which to transact credits generated during the demonstration project without going through an extended state approval process involving not only extensive bureaucratic review, but also time-consuming public comment periods. These obstacles were especially problematic for PSEG because the utility company had amassed a sizable number of credits and had several other trades under consideration.²²

At NJDEP, state environmental officials publicly supported OMT and the strength of its endorsement increased in the press after the informal unveiling of EPA’s proposed OMTR in June 1995. Commissioner Robert Shinn urged EPA to finalize the rule quickly so New Jersey could promptly adopt its own OMT program.²³ Also enticing New Jersey to embrace OMT was EPA’s promise to automatically approve the program if it incorporated the forthcoming OMTR in its entirety.²⁴

According to one of my respondents, though, support for OMT at the highest levels of NJDEP, while genuine, was also a testament to a state political context that was unwilling to pursue required emission reductions through conventional means. This resistance was neither unfamiliar nor particularly surprising. New Jersey historically avoided extreme pollution reduction initiatives due to the fact that it receives sizeable volumes of air pollution from out-of-state sources that regularly put it in violation of federal air quality standards.²⁵ Economic concerns have also deferred state action to suppress air emissions, especially after implementation of the CAA Amendments of 1990, which imposed competitive disadvantages on local industry.²⁶

16. *Oxides: The Next Hot Commodity?*, STAR LEDGER, June 4, 1995, at C4.

17. *Id.*

18. Matthew L. Wald, *Eastern Utilities in Unusual Pact: A Smog Trade Off*, N.Y. TIMES, Mar. 16, 1994, at A1. Of potential interest is the fact that this deal was brokered by PSEG’s agent, Clean Air Action Corporation whose president, Ben Henneke, was considered along with Ayres by PEER as the two individuals who played an “inordinately influential role in driving EPA’s policies.” As evidence to that claim, these two individuals were identified in the August 1995 OMTR as “the original developers” of OMT. Ayres was also an attorney with the law firm of O’Melveny and Myers in Washington, D.C. Further cementing the political connections between New Jersey industry and federal lawmakers, Mary Nichols, EPA’s assistant administrator, was the wife of John F. Daum, a member of the O’Melveny and Myers firm in 1995. Despite a signed recusal from any involvement in the firm that represented Henneke, Nichols wrote to all state air quality directors offering her own and EPA’s support for open trading.

19. Matthew L. Wald, *Utility to Sell Air Pollution Rights to Merck: New Jersey Deal Would Let Drug Concern Emit 10 Extra Tons*, N.Y. TIMES, June 1, 1995, at B6.

20. *Id.* See also J.R. Perone, *Pollution Trading Is Hot Commodity as Merck, PSEG Help Clean the Air*, STAR LEDGER, June 2, 1995, at 1.

21. Dorothy Bowers, *Market Responds to Northeast Pollution*, N.Y. TIMES, June 10, 1995, at 18.

22. *Oxides*, *supra* note 16.

23. Tom Johnson, *New Rules, EPA Proposal Target Poor Air Quality*, STAR LEDGER, July 27, 1995, at 17.

24. Letter from Mary Nichols, Assistant Administrator for Air and Radiation, U.S. EPA, to State Air Administrators (1995) (on file with EPA).

25. Jerry Gray, *Smog-Plagued States Sign Ozone Agreement*, N.Y. TIMES, Aug. 5, 1992, at A18. For instance, the level of ozone and ozone precursors blown into the state at the time was sufficient to cause New Jersey to exceed the ozone standard even in the absence of any in-state source emissions; see LISA STANSFIELD, *AIR POLLUTION IN NEW JERSEY: PROBLEMS, PROGRAMS, PROGRESS* (American Lung Ass’n, New Jersey, 1989).

26. According to the New Jersey State Chamber of Commerce, the 1990 CAA Amendments would annually cost New Jersey business roughly \$1.4 billion. See Eugene Kiely, *To Make the Sky Clean; New Jersey’s Air Is Acrid, Smelly, and Dangerous. Now a Revised Clean Air Act Sets About to Change That. The Costs Will Be Huge and Reach Everybody*, BERGEN REC., Oct. 28, 1990, at A19.

The state's opposition to curtailing emissions reached a crisis point in 1994 with the new Republican majority at the national level. During this time, according to one of my respondents, NJDEP was "beaten to death" by the state legislature because the environmental body was viewed as a heavy-handed regulatory institution. Furthermore, any efforts to achieve drastic emissions reductions pursued by NJDEP at that time were perceived by the state legislature as an invitation to restructure the department's top management to make it more receptive to restrained policy measures.

By concurrently tending to the need for cleaner air and economic competitiveness, OMT provided state environmental officials with an ideal political resolution. At the same time, the ground had already been prepared for the introduction of a market-based air quality program.²⁷ For instance, New Jersey had already begun to integrate more fully the market-based concepts and regional organization tools that were part of the 1990 CAA Amendments, a move that was driven by the prospects of federal sanctions due to delayed noncompliance with air quality standards.²⁸ Moreover, the state had agreed to participate in the federally established Ozone Transport Commission (OTC) in 1992 and this gave further momentum to the collective approach that states were seeking to meet those standards.

Additional interviews with key participants confirmed this support for OMT at the high political echelons of NJDEP, but also suggested that this endorsement was not widespread across the agency more generally. As one of my respondents pointed out, environmental officials responsible for the actual management of the air program within NJDEP viewed OMT as an avenue for industry to circumvent air quality regulations, and they did not trust a private market approach. Managers were specifically concerned that companies would be granted DER credits for emissions reductions "that would have happened anyway" and feared the creation of hot spots within the state as a result of the accumulation of large numbers of credits in specific geographic areas.

Resistance to the unique trading program within NJDEP, though, was soon trumped by a major overhaul of the state's air pollution law in August 1995, that provided the vehicle to operationalize OMT in New Jersey. The changes came when New Jersey was facing multiple federal deadlines to amend the law, and were passed by a legislative majority that, according to one respondent, "did not understand what they were voting on."

The amendments required NJDEP to establish an emissions trading program that used "economic incentives to make progress toward the attainment or maintenance" of federal air standards,²⁹ although an open market approach was not specifically delineated.³⁰ However, the language of the bill, and the timeline for implementing the program, all

but guaranteed the selection of OMT. The legislation specifically called for NJDEP to "consider the role of a third party in the banking, verification . . . and program audits associated with emission reduction credits" and to "create and preserve opportunities for private sector participation in any emission trading program established by the department."³¹ All of these features were characteristic of OMT. In addition, the provision that the trading program's rules be proposed within 90 days was a clear declaration to select OMT because of its low startup requirements.

According to multiple respondents, though, the specific language of the bill was not predicated on input from NJDEP. Concomitantly, the bill's sponsors did not have any specialized knowledge of the intricacies of OMT. Indeed, the open market-like references within the legislation were the direct result of a successful lobbying campaign on behalf of industry, including PSEG, led by Bradley, the former NESCAUM director-turned-consultant for the large utility company and other businesses around the state interested in OMT.

As a result, New Jersey quickly began to implement the industry-sponsored program which, according to one of OMT's biggest advocates, Governor Whitman, would "help New Jersey improve air quality and the quality of life for business."³²

III. Program Development

The state legislature's call for an immediate emissions trading program in 1995 imposed a significant and urgent obligation on state environmental officials.³³ With "no infrastructure to implement the [OMET] program" at that time, according to one NJDEP respondent, environmental officials took on the responsibility of OMT when department resources were being cut 20% in regulation, permitting, and enforcement under Governor Whitman.³⁴ There was, according to this individual, an "unwillingness to assign people to manage the [OMET] program," despite the governor's claim that the 1995 bill gave "the Department of Environmental Protection the resources it needs."³⁵

Still awaiting a final EPA rule on OMT and under an "extremely tight schedule," NJDEP sought to include "those provisions of USEPA's proposed OMTR for which a consensus appeared to exist" and at the same time "address[ed] issues which the proposed OMTR [did] not yet address," that the department believed had to be in place for trading to begin promptly.³⁶ That combination enabled, if not forced, New Jersey to settle on a program that was self-implementing and called for minimal state oversight.³⁷

27. Instead of more potentially expensive methods of direct regulation whereby companies are each required to meet the costs of achieving emission limits, market-based approaches allow companies to offset pollution reduction expenditures and to provide an incentive to reduce air pollution.

28. Gray, *supra* note 25.

29. New Jersey Assembly No. 2664 (Second Reprint), Public Law 1995, Chapter 188, Approved Aug. 2, 1995.

30. The program's initial concentration on NO_x and VOC emissions placed an emphasis on ozone control.

31. New Jersey Assembly No. 2664, *supra* note 29.

32. Peter Page, *Governor Signs Major Overhaul of NJ Pollution Law*, TIMES OF TRENTON, Aug. 3, 1995, at A1.

33. The state's impatience also obligated NJDEP to create the program prior to the issuance of final direction on OMT programs by EPA.

34. *The Integrator*, ENVTL. F., July/Aug. 2002, available at <http://www.state.nj.us/dep/commissioner/campbell.pdf> (last visited Mar. 26, 2004).

35. Page, *supra* note 32.

36. NJDEP, *Open Market Emissions Trading*, 28 N.J. Reg. 1147b (Aug. 1, 1996).

37. U.S. EPA, OPEN MARKET TRADING PROGRAM FOR AIR EMISSIONS NEEDS STRENGTHENING (Office of Inspector General (IG), Report No. 2002-P-00019, 2002) [hereinafter U.S. EPA, OPEN MARKET TRADING].

Consequently, NJDEP sidestepped time-consuming measures to safeguard the OMET program, most important in this regard was the failure to establish approved emission quantification protocols or secure EPA-approved protocol guidance governing the use of DER credits. Reliable procedures were critical to enable firms to accurately estimate their reductions and credit needs in the program.

Federal EPA officials who were watching guard over the program's maturation wanted New Jersey "to list some criteria in the rule on what should be addressed in the [quantification] protocols."³⁸ EPA's proposed rule recognized the important role that protocol use and development would have in open market programs. However, the need to have in place government-approved protocols before trading took place was considered to be an impediment to the development of OMT systems. NJDEP would need dozens, and possibly hundreds, of specific protocols to address the diverse nature of mobile and stationary sources authorized to generate and trade DER credits.³⁹

In response to this obstacle, EPA sought to work with states to establish only guidance for acceptable protocols that would outline the data that companies would need to support the number of credits they claimed to be generating or that they needed to comply with federal regulations. In turn, industry would be held to this guidance and to create accounting practices that were specific to various commercial operations.⁴⁰

Instead of collaborating with EPA to achieve federal approval, NJDEP instead sought to "rely on its own experience and expertise with stationary and area sources" to develop quantification procedures for companies within the state.⁴¹ Companies could then use this guidance to formalize their own protocols that would utilize compliance mechanisms such as stack emission testing already in use. New Jersey's unilateral approach stemmed from discontent with EPA's prior efforts to develop protocols for stationary and mobile sources that required "complicated quantification techniques, which included statistical analysis, that were overwhelmingly objected to by process participants" and led to the creation of an "unmanageable trading system."⁴²

Other contentious issues in the state's program included DER verification and liability. The delegation of credit verification to the private market was "the area most people in [EPA] headquarters [had] concerns about when discussing NJ's OMET program,"⁴³ a position that signaled EPA's ongoing resistance to one of OMT's rudimentary elements. The issue of liability associated with DER credits posed separate concerns. Under New Jersey's program, if credits previously verified and used for compliance were eventually found to be invalid, the credit user would not be

liable for the bogus credits, and no penalty would be applied. The user would only be expected to replace the invalid credits with legitimate ones.⁴⁴ EPA's OMTR stated that the principle of buyer liability would be most effective to assure DER quality.⁴⁵

These examples of New Jersey's go-it-alone approach to OMT exemplified the difficulty of developing a state open market program in the absence of a final, binding OMTR.⁴⁶ EPA Region 2 officials quickly realized the program's distinctive nature, the extent of which led them to "not judge NJ's rule against the OMTR" as the state's program was "something different" from EPA's proposed rule. Instead, New Jersey's trading program would be classified as a stand-alone economic incentive program (EIP) and would consequently "be judged by the criteria for all State Implementation Plan submissions—that they be enforceable, compatible with the [CAA], protective of the National Ambient Air Quality Standards, etc."⁴⁷

Despite clear uncertainties in New Jersey's pending trading program, federal officials remained inclined to "let NJ try it."⁴⁸ The OMET program could, in fact, then be viewed as an experiment in regulatory incentives to improve air quality. In other words, the sole federal publication on OMT would not be the standard for a proper or improper open market program. Instead, New Jerseyans were subjected to the trials and errors of an untested initiative and the novelty of this experiment should have prompted careful oversight by NJDEP. Such vigilance would not be forthcoming. On the contrary, state officials remained lax, if not negligent, throughout the program and simultaneously promoted the air quality benefits of a credit trading program that could never be appropriately quantified for or accepted by EPA.

IV. Reasons for Closure

There is ample evidence that NJDEP failed to execute the limited number of obligations for which it was responsible under the state's OMET initiative, namely the auditing of credits and the mobilization of enforcement. Consequently, the program's shortcomings were cloaked under a myriad of complementary announcements that gave the impression the program was a promising initiative. These lone civil responsibilities to a program largely under the control of the private sector were especially warranted following the decision to grant private facilities unprecedented control to quantify and generate emissions credits that they could later sell to companies seeking to comply with federal air standards. Furthermore, state environmental officials failed to respond even in the face of highly publicized events that should have, by any reasonable measure, prompted them to assume greater oversight authority.

A significant deficiency in New Jersey's OMET program derives from an inability to communicate and to confirm the program's actual environmental benefit. The federal OMTR

38. E-mail from EPA Region 2, to NJDEP (May 22, 1996) [hereinafter EPA Region 2 E-mail]. Communications involving EPA Region 2, EPA Headquarters, and NJDEP were obtained through Freedom of Information Act requests.

39. 60 Fed. Reg. at 39668. The number of required protocols was magnified by the unusually large scope of participants, and therefore the range of industrial applications that could generate or use credits as part of OMT programs. These initiatives included both major and minor sources, some of which had not previously encountered credit trading as an environmental management tool.

40. *Id.*

41. See *supra* note 36.

42. *Id.*

43. EPA Region 2 E-mail, *supra* note 38.

44. U.S. EPA, OPEN MARKET TRADING, *supra* note 37.

45. 60 Fed. Reg. at 39668.

46. Interestingly, it was state pressure for program flexibility that eventually led EPA to propose the OMTR only as guidance. Without such flexibility to compensate for local economic and environmental conditions, several key states had indicated that they would not consider OMT.

47. EPA Region 2 E-mail, *supra* note 38.

48. *Id.*

was clear in its intention to simultaneously reduce the cost of compliance *and* to promote emissions reductions that provided immediate public health benefits. Federal guidance already in place also stipulated that any state seeking to incorporate EIP's had to ensure they were "designed to benefit both the environment and the regulated entity."⁴⁹ The OMET program clearly violated this condition on all accounts. New Jersey's own state implementation plan (SIP) submission to EPA for OMET's approval boldly stated that "no VOC or NO_x emissions reductions were projected to be associated with the implementation of the NJ OMET program."⁵⁰

However, the absence of any reductions in the state's SIP did not thwart state efforts from promoting or publicizing the program's ability to improve air quality. NJDEP administrators, elected officials, and corporate managers that had successfully lobbied for OMT regularly identified and promoted OMET on the basis of the program's environmental benefits. For instance, they regularly stated that the emissions trading component of the 1995 air pollution control law amendments would result in lower pollution overall and companies expressed the program would clean up the air.⁵¹

Former NJDEP Commissioner Shinn went as far as to assert the program resulted in 10,000 tons of emissions reductions between 1995 and 1996,⁵² a statement that gave the impression that the OMET program was not merely an additional compliance option for industry, but also an innovative way to achieve environmental improvements.

The foundation for OMET's environmental benefit claim, though, was masked by an overall goal to provide industry "with a flexible compliance alternative in meeting its continuing, shrinking emission reduction requirements, and, on the same hand, offering an environmental benefit, in that it encourag[ed] early emission reduction and guarante[e]d a 10 percent retirement of emissions upon use."⁵³ While news organizations widely reported this claim of a 10% retirement benefit for the sake of the environment, no one publicized the fact that, according to one respondent, EPA officials would not allow the state to claim those reductions as a means to show that companies in New Jersey were spewing out less air pollution. In other words, EPA was in fundamental disagreement with New Jersey's claim that its own guidance was sufficient to deter the production of bogus emissions credits.

The lack of a serious mechanism to ensure that the generation of credits was attributable to real emissions reductions would become the central argument against the state's trading program advanced by environmental groups.⁵⁴ This argument, according to one NJDEP respondent, was not spe-

cial because allowing industry to generate their own quantification protocols was a "big mistake." Such a provision gave firms an incentive to "push a protocol their way" and to "take advantage of the program." These were outcomes that the official believed did indeed occur.

Evidence of this perceived abuse emerged in 1998 when a very contentious issue—one that had undergone much debate inside EPA—surfaced. Ten companies in New Jersey were given the authority to sell credits generated before New Jersey's OMET program became active in 1996, most of which were reductions that were carried forward from the NESCAUM/MARAMA demonstration project. EPA officials had "been fighting against this [claiming pre-1996 credits] all the way."⁵⁵ In spite of this federal resistance, in February of that year, EPA agreed to allow those companies in New Jersey to use pre-1996 credits, a decision that would allow them to cash in on just over 10,000 tons of purported reductions. More than 9,500 tons of those credits belonged to PSEG that, based on a credit transaction that occurred in 1997, had a market value between \$9 and \$12 million.⁵⁶

As a condition for EPA's approval, NJDEP was required to submit to EPA all documentation the 10 companies had that showed all pre-1996 credits were calculated appropriately. In October 1998, as requested, NJDEP handed over 10 credit generation strategies that had been employed by companies such as Conectiv, PSEG, BASF Corporation, and Interbake Foods Incorporated. EPA soon determined that all 10 credit strategies not only failed to meet New Jersey's own criteria for quantifying credits under the OMET program, but also found those strategies to be inconsistent with EPA's guidance.⁵⁷

While EPA's harsh assessment posed a significant blow to the program's credibility, the larger, more pressing issue at hand involved the impact that EPA's review would have on the balance of credits generated after 1996—most notably those that had been based on protocols developed in the private sector and, according to one respondent, that were attributable to the demonstration project. By 1999, NJDEP acknowledged that in the three-year period since the program commenced in August 1996, companies in the state's four most heavily urbanized counties had accumulated more than 2.5 million pounds of NO_x and VOC credits.⁵⁸

Instead of investigating the validity of the credits that had been formally generated under the OMET program, NJDEP instead distanced itself from this and other unidentified problems. According to one respondent, when compliance-related problems began to surface, senior staff was "discouraged from referring things to enforcement" because the commissioner at the time "wanted to give the program a chance" and "was in favor of the program and wanted it to succeed." Such problems included clear violations of the state's OMET rules as "some of the companies, at least two or three, maybe more . . . stated they were using credits to

49. 60 Fed. Reg. at 39668.

50. Bill Wolfe, *Comments to EPA Region 2 on the Proposed Approval of New Jersey's Open Market Emissions Trading State Implementation Plan Revision*, N.J. State Chapter of the Sierra Club, Trenton, N.J. (Mar. 11, 2001).

51. Page, *supra* note 32. See also *Oxides*, *supra* note 16.

52. Press Release, NJDEP, *Matawan Firm to Track Emissions Trading* (June 5, 1997).

53. *Air Quality Update: Status of the Implementation of Programs Required by the Clean Air Act Amendments of 1990: Public Hearings Before the Assembly Committee on Env't, Science, and Technology, Bill No. 1099* (N.J. 1996) (testimony of Christine Neely, New Jersey State Chamber of Commerce, Alternate Co-Chair, Emissions Trading Work Group) (focusing on the operating permits program and other programs affecting business and industry in New Jersey); see also *supra* note 36.

54. Nussbaum, *supra* note 2.

55. EPA Region 2 E-mail, *supra* note 38.

56. Letter from Kateri C. Callahan, President of Alliance to Save Energy, to John C. Elston, Administrator, Office of Air Quality Management, NJDEP (1999) (on file with EPA). See also Twyman, *supra* note 3. This calculation is based on 1997 transaction costs in which PSEG sold 63 tons of DER credits to a specialty paper manufacturer and to the South Jersey Gas Company at prices ranging from \$950 to \$1,250 per ton.

57. Callahan, *supra* note 56.

58. Tracey Regan, *New Market Emerges for Pollution Credits*, TIMES OF TRENTON, Dec. 6, 1999, at A1.

compensate for emission limit exceedances as [dictated] by their permit.” Even when agency enforcement authorities were alerted, this particular respondent stated that “enforcement never got to the point of checking it out and issuing a violation, but they were made aware of it.”

Of course, responsibility for safeguarding against the use of completely bogus or skewed credits by exerting its auditing authority was one of the few real obligations NJDEP had in the OMET program. Because generation, verification, registration, transfer, and use of DERs was delegated to the private sector, the department had an especially prominent duty to conduct comprehensive programmatic reviews. Audits would provide assurance that the credits firms were claiming were genuine and indeed the result of reductions in excess of what was required by law.

Early on in the program, NJDEP in fact did view auditing as a way to prevent companies from claiming credits from emissions reductions that would have occurred anyway.⁵⁹ State environmental officials also made specific commitments at the onset of the program to, at a minimum, “meet any program audit requirements established in federal regulations or guidance (at least every three years).” That promise was advanced in response to EPA’s concerns that credit trading in the OMET program would lessen the state’s ability, and areas downwind, to meet federal air standards.⁶⁰

Here, too, NJDEP failed to fulfill its public commitment. According to one NJDEP respondent, with only one full-time staff person committed to the OMET program, auditing was not “high enough on the department’s priority list to do,” but “one could say that maybe the department didn’t want to know what was going on.”

Formally, the state’s position to EPA was that New Jersey “didn’t need to complete a program audit until three years after EPA’s approval of the OMET program.” However, New Jersey formally sought that approval at the end of 1998, two years after the program was in operation. EPA did not agree with New Jersey on this issue and tried to point out to NJDEP that the audit was based on implementation of the program and not on implementation of the program after EPA approval. In fact, according to one EPA respondent, EPA told New Jersey “it was in their interest to complete the audit outside of the SIP process and that positive audit results could help toward OMET’s approval.” The result was that throughout the entire time OMET was operational, from 1996 to 2003, NJDEP never conducted a program audit or verified the accuracy of a single DER credit.

In the face of these administrative lapses and resource limitations, state environmental officials did not take any other measures to ensure that the OMET program was not vulnerable to abuse. Quite the opposite, NJDEP instead pushed to loosen permit requirements in December 1999, in an attempt to accelerate DER credit use, a move that was premised upon a desire to give businesses increased flexibility over emission levels during periods of high production.⁶¹ The new rules, outlined under Stage II of the program, would “allow companies to exceed permitted pollution lim-

its for limited periods of time” and allow companies “to pay off an expanded number of permit violations with credits.”⁶²

As NJDEP officials sought to revise the state’s OMET program, they also embarked on efforts to resist the incorporation of any safeguards that federal officials deemed to be appropriate. For instance, in November 1999, two months after EPA published a draft version of the new federal guidance pertaining to EIPs, New Jersey asked EPA to grandfather the state from any new provisions that would pertain to its OMET program.⁶³ In the absence of such a provision, the OMET program would have to meet the new EIP guidelines as New Jersey’s program had not yet been approved.

To justify this request, NJDEP stated that the OMET rules were based “on the federal model open market trading rule for ozone smog precursors, proposed by USEPA in 1995” and that NJDEP had attempted “to adhere to all applicable rules and guidance issued by USEPA.”⁶⁴ In actuality, as discussed earlier, New Jersey’s efforts to conform to the 1995 OMTR did not include and/or follow through on key provisions of the federal rule, namely assurances that measurable environmental benefits would be realized, auditing functions would be properly fulfilled, and proper enforcement mechanisms would be put in place.

The requirements of the forthcoming federal EIP guidance could have had severe impacts on the state’s OMET program. As Commissioner Shinn stated: “[A] decision to make the new federal EIP guidance applicable to already promulgated [state] rules would effectively remove the availability of open market trading as an administrative instrument that could lower compliance costs for at least two years, if not permanently.”⁶⁵ However, this statement was not entirely true. The pending EIP guidelines would not remove OMT as an administrative tool, but would rather represent EPA’s final action and conditions for OMT that included, among other things, the requirement for industry to certify, upon credit generation, that their internal guidelines met “all relevant requirements of EPA’s quantification protocol development criteria.”⁶⁶

In a move that would eventually shelter the state’s EIP from conforming to EPA’s final policy requirements on OMT, NJDEP called on EPA headquarters in June 2000, to “proceed as soon as feasible to finalize the action of the USEPA” and approve New Jersey’s SIP to incorporate the state’s OMET program.⁶⁷ Coincidentally, EPA proposed to approve conditionally New Jersey’s program in January 2001, the same month the new federal EIP guidance was published. This action exempted New Jersey’s OMET program from the new incentive guidance because any program that had already been conditionally approved by EPA would not be subject to the new provisions.⁶⁸ Instead, EPA Region 2 officials sought to work with New Jersey in subsequent years to improve various areas of concern. EPA personnel

59. See *supra* note 36.

60. *Id.*

61. In the three years leading up to 1999, companies in four of the state’s most heavily urbanized counties earned nearly 25,000 credits under the OMET program. However, only 30 of these credits were purchased. Regan, *supra* note 58.

62. *Id.*

63. Letter from Robert C. Shinn, Commissioner, NJDEP, to John Seitz, Director, Office of Air Quality Planning and Standards, U.S. EPA (1999) (on file with EPA).

64. *Id.*

65. *Id.*

66. Letter from Jeff Ruch, Executive Director, PEER, and Bill Wolfe, Policy Director, New Jersey Sierra Club, to Nikki Tinsley, IG, U.S. EPA (2001) (on file with EPA).

67. Shinn, *supra* note 63.

68. U.S. EPA, IMPROVING AIR QUALITY, *supra* note 7.

conceded that this task would be more easily accomplished before the OMET program was approved.⁶⁹

Conditional approval of New Jersey's program in January 2001, while beneficial for the state's commitment to facilitate emissions trading, ultimately proved to be its ruin because this action catalyzed a series of high profile events that uncovered several unfavorable program liabilities that had been festering under NJDEP's complacency. The public comment period required by the provisional authorization prompted the New Jersey chapter of the Sierra Club and Public Employees for Environmental Responsibility, a national watchdog group, to jointly prepare comments to the EPA's Inspector General (IG).

Those formal assessments itemized the two groups' major concerns regarding EPA's proposed approval in the face of numerous cautionary findings already acknowledged by the office of the IG itself that OMT programs "may be deeply flawed and . . . pose a hazard to public health." In addition, the groups collectively claimed that facilities "used this never-approved program both to generate credits and use them to demonstrate 'compliance' with the [CAA's] requirements."⁷⁰

The IG was clearly interested in New Jersey's program, especially with respect to the validity of DER credits in the state, and stated that "quantification was one [concern] that [environmental groups] raised and that we intend to pursue."⁷¹ This particular focus proved to be warranted as the eventual investigation found that "data quality objectives were not consistently used to minimize the risk of invalid trades in the 84 trades [IG] reviewed in New Jersey."⁷² The IG also confirmed something that was already widely known in the state—that no EPA- or state-approved protocols were used to calculate credits.

However, the IG's finding that had the most significant impact on the OMET program was not something initially targeted by the investigation. During the course of the review, EPA inspected the trades to which PSEG had been a party and "alleged [that the utility had] violated [new source review] requirements by modifying two plants without obtaining required permits that would have established lower compliance levels." In other words, PSEG was purportedly in violation of the CAA and, if this assessment was substantiated, would be required to have had a lower emissions limit for certain operations. With lower lawful levels, PSEG's emission reduction credits would not have been as great as initially claimed. Another local utility, Conectiv, was found to have used credits at inappropriate times of the year, a violation that the IG claimed NJDEP could have detected if the department had been reviewing program data.⁷³

Federal officials and PSEG reached a settlement in Janu-

ary 2002 in which the utility company retired roughly 18,600 tons of DER credits valued at more than \$16 million, a fine according to one respondent that was rather insignificant, since the credits were never independently verified as genuine in the first place.⁷⁴ The larger problem stemming from the settlement, though, related to the impact that the agreement would have on the existing DER market. The removal of PSEG's credits markedly curtailed the supply from which companies could purchase to stay in compliance with technical standards.⁷⁵ This reduction of DER credits, combined with the closure of the program's credit registry at the end of 2001 when the contractor withdrew, created a tumultuous situation.

The final exam that the OMET program would ultimately fail was the evaluation by then-new NJDEP Commissioner Campbell. According to Campbell, the settlements resulting from the IG investigation "highlight[ed] the need to reevaluate New Jersey's failed emissions trading program" to make sure communities were not being shortchanged.⁷⁶ The resultant reassessment prompted Campbell to ask EPA to hold off on the final approval of the state's OMET program in May 2002 with the hope that NJDEP officials would substitute the OMET program with a more "workable" alternative.⁷⁷ This search was aborted after only four months and Campbell concluded that the OMET program had failed and had hurt the state's effort to reduce air pollution. For their part, environmental advocates described the program as "an environmental con game that did not work."⁷⁸

V. Conclusions and Recommendations

As pointed out by one respondent, the experience garnered during New Jersey's emissions credit trading program highlights a potential misconception over the conjoining of market mechanisms and environmental policy—that market-based solutions can independently solve environmental problems, or, more appropriately for the OMET program, provide industry with an alternative method of regulatory compliance. OMT pushed the regulatory envelope in that the state delegated the necessary tasks associated with credit trading to the private sector in an entirely unprecedented manner. The state's legislature and its environmental officials simply overestimated the public's tolerance for the abrogation of government oversight in the conduct of environmental management.

The limit of that tolerance was ultimately violated by the absence of real safeguards and numerical targets essential to achieving substantiated environmental improvements. The need for an environmental goal, as pointed out by EPA's IG, was especially warranted in the OMET program to confirm that the initiative provided emissions reductions equivalent to those achievable under the prevailing system of technical standards.⁷⁹ Combined with the careless manner that NJDEP administered the program, one can easily con-

69. U.S. EPA, OPEN MARKET TRADING, *supra* note 37.

70. Ruch, *supra* note 66.

71. Nussbaum, *supra* note 2.

72. Data quality objectives are

explicit statements that describe the type, amount, and quality of data to support environmental regulatory decisions. According to EPA's data quality objectives order (Order 5360.1), five attributes should be known before the data are used for regulatory decisions. These include quantitative measures of precision, accuracy, completeness, qualitative statements regarding data representativeness, and comparability.

U.S. EPA, OPEN MARKET TRADING, *supra* note 37.

73. *Id.*

74. *Id.*

75. Anthony S. Twyman, *Jersey Spiking Whitman Plan*, STAR LEDGER, Sept. 17, 2002, at 1.

76. *Id.*

77. Darren Samuelsohn, *Clean Air: EPA Under Scope as It Ponders State Trading Programs*, GREENWIRE AIR, WATER, AND CLIMATE, May 2000, at 10.

78. Mansnerus, *supra* note 4.

79. U.S. EPA, OPEN MARKET TRADING, *supra* note 37.

clude that prolonging this experiment would only result in poorer air quality and an increased incidence of public health hazards.

It is therefore not surprising that the feedback collected in this study on how to improve the OMET program focused on conservative means to employ market-based policies such as OMT. Recommendations included the creation of significant oversight and the need to begin an OMT program with a small number of participants to build confidence in both the regulatory agency and the public that a worthwhile and well-intended program is in place. Moreover, an effective emissions trading program requires a commitment to strict enforcement and regulatory authorities should actively investigate and confirm the validity of a sufficient number of DER credits to ensure that real emission reductions are taking place.

To avoid concerns regarding the prominence of private parties in open trading, the need for accurate quantification protocols and scrupulous guidance must be at the core of any OMT program. Since regulatory authorities must devote considerable effort to developing protocols for every industrial application involved in credit generation, they should prioritize those operations and reduction techniques that are most prevalent in industry and have the capacity to produce the largest number of credits due to the sheer volume of source emissions. Those protocols should ideally be approved by either EPA or the appropriate state agency, or both, before credit generation can take place. For smaller emission sources where approved quantification protocols

are not justified, environmental authorities must develop guidance that is agreeable to both state and federal officials. Facilities subject to these provisions should be the focus of enforcement audits to confirm that they are following appropriate procedures for generating credits.

In many respects, the decision to integrate OMT into the state's existing air quality regulations could be portrayed as a sensible policy decision. New Jersey was struggling to find methods of regulation that simultaneously balanced air quality improvements and protected the competitiveness of its industry. In addition, the use of market-based measures and interstate approaches to achieve emission reductions, particularly ozone precursors, were being pursued as strategies that could satisfy economic and health concerns while recognizing the regional nature of the ozone problem.

The real value of OMT, though, should not be predicated upon the actual volume of emission reductions that are taking place. Open market trading represents a rare regulatory tool that can spur smaller and more numerous businesses to identify innovative, rewarding ways to improve their environmental performance. As Ayres points out: "[W]ith more accurate information about the costs of reaching pollution control goals, policymakers can make more informed decisions with respect to such goals."⁸⁰ The advantage of promoting and learning from that innovation justifies the continued experimentation with OMT as an option for achieving cost-effective pollution reduction targets.

80. Robert Ayres, *Expanding the Use of Environmental Trading Programs Into New Areas of Environmental Regulation*, 18 *PACE ENVTL. L. REV.* 3 (2000).