The Costs of Pollution Regulation: Economic and Policy Implications for Illinois

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INTRODUCTION

The State of Illinois must become more competitive if it is to attract and retain the kinds of businesses that will carry its economy into the next century. Reducing the cost of environmental regulation, if creatively addressed, will become a vital element in any economic development strategy. The State and its businesses have taken limited measures to date,¹ but what is really needed are initiatives that will focus energies, talent and funds on solutions rather than on symptoms.

The solution to the problem of the high cost of pollution regulation is pollution prevention. This must be the focus of the Illinois regulatory scheme, as Illinois must move away from end of the pipe controls and remediation, and begin addressing the problem at the source.

Can Illinois be successful? Yes, if it seizes the opportunities that exist by virtue of the State’s economic and industrial structure. A coalition of business, community and government must be formed that is less focused on “my” backyard and more focused on “our” backyard. Politics and compromise will be essential, as well as the real, painful decision to admit that government cannot be all things to all people or all industries.

The intent of this article is to discuss the strategy options available to the State in light of the economic impact of environmental regulation on its key industries. As an individual actor, a business must devise strategies to create competitive advantages. The State must

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¹. The State’s environmental focus has been almost exclusively on pollution control and remediation in response to federal mandates and funding. While the State has created the Office of Pollution Prevention and the Illinois Hazardous Waste Research and Information Center, their roles have been limited by appropriations.
devise strategies that meet the economic needs of its industries while simultaneously achieving the economic and non-economic needs of its citizens. The options the State has to accomplish this are determined by its resources and capabilities, as well as by the will of its citizens on one side, and industry forces on the other.

In order to devise competitive strategies, the present economic situation of the State needs to be reviewed with consideration given to the impact of pollution controls on its dominant industries. Only if we realistically assess the options available to us, can we develop strategies that will be successful. This is not an easy task, but what is now clear is that our present strategies are flawed.

I. Illinois' Economy and Economic Structure

In the past two decades, the industrial base of Illinois suffered the fate of most other states in the region. The Great Lakes region's structure has been diversifying through deindustrialization as has New England's and the Mideast's.

A. Industry and its Role in the Illinois' Economy

Despite its diversification, the Midwest continues to be a specialist in the production of durable and nondurable goods, exporting its surplus to the nation and the world. In the areas of motor vehicles and equipment, primary metals, fabricated metal products, rubber and plastics, machinery, paper printing, chemicals and allied products, Illinois leads the nation in terms of the number of persons employed by these industries. With the exception of Illinois, all the other midwest states do not deviate from the regional average for reliance on durable and nondurable goods production. Out of the five Great Lakes states, Illinois has managed to develop an economic specialization outside of manufacturing, and has developed a structure more


4. Id.

5. Id.
analogous to the nation as a whole. Nevertheless, Illinois still relies on industry for its economic vitality.

In the 1980s, Illinois did not keep pace with the nation’s job growth rate in major industrial categories. Even in those sectors in which the state showed the greatest growth, its expansion lagged behind the rest of the nation.

Between 1980 and 1990, the population of Illinois increased by only 4,084 persons, raising the total population to 11,430,602. This gain of .04% is much less than the 1% gain realized by the Midwest overall, and 9.8% gain realized by the nation.

New jobs grew at a rate of 8.6%, as compared to the Midwest’s 8.2%. However, this dramatically trailed the national increase of 16.7%. Approximately 6 million Illinois residents were in the civilian labor force.

By sector, 62% of Illinois’ workers were engaged in the service industry, 23% in goods production, and 15% worked in the governmental sector. In 1989, the gross state product, which represented approximately 5% of the national GNP was 256 billion. The different sectors contributing to the gross state product by percent were: manufacturing, 19.9; transportation, communication and public utilities, 10.1; wholesale trade, 8; retail trade, 9; finance, insurance and real estate, 17.4; services, 19.4; government, 9; agriculture, 9; and construction, 4.7.


6. Id. at 151.
7. Robert H. Schnorbus and David D. Weiss, Interregional Competitiveness and Diversification in Great Lakes Economy, supra note 3, at 38-47.
9. Id. at 113.
10. Id. at 114. Among the states, Illinois ranked forty-sixth in growth. Id.
11. Id.
12. Id.
13. Id. at 110-11.
14. Id. at 115.
15. Id.
16. Id. at 113.
17. Id. at 112-13.
regional per capita income growth. Illinois' per capita income growth ranked twenty-third, while the state was ranked ninth for its per capita income level of $20,433, which contrasted the nation's $18,696.

B. ENVIRONMENTAL REGULATIONS AND THE INDUSTRIAL SECTOR

Despite the grim performance of the region's economy in the 1980s, there is reason for optimism. The state's dependence on manufacturing can be a source of its strength into the next century. The lower dollar, export opportunities, and the price competitiveness of housing, fuel and labor are factors which will help the economy move into the future. However, the region's continued reliance on manufacturing combined with the concentration of industry in non-attainment areas continues to place a burden on the region that threatens its industrial cost competitiveness.

Many of the dramatic changes in Illinois' economy took place in the first part of the decade when the forces of environmental regulation were first being felt. However, it should not be said that these shifts were primarily a result of the new pollution regulations. The effect that the regulations had on discreet industries cannot be discounted. The nature and structure of the region's economy made it vulnerable.

The pressures of environmental regulations are most significant for marginal performers caught in these economic down cycles. Even the funds available for reinvestment by healthier firms may be reduced due to environmental regulations. Not surprisingly, the Illinois Manufacturers' Association (IMA), which represents more than 4,500 state manufacturers has made the environment a key part of its legislative program.

According to the IMA, the State of Illinois and Region V of the U.S. Environmental Protection Association "imposed more stringent regulations than required by Congress or Illinois' competitive neighboring states." Further, it argues that economically prohibitive

18. Id.
19. Id. at 114-15.
21. These non-attainment areas are geographic areas that do not meet EPA air quality standards because of the level of pollution present.
23. Id.
25. Id.
legislative and regulatory proposals "add to the already high overhead of Illinois industry and results in fewer jobs." 26 Restoring what it calls "balance" in the state's environmental policies is the goal of the legislative agenda. 27

A quantitative measure of the number of jobs lost due to environmental regulation is practically impossible to calculate. Logic and noticeable trends in heavily regulated locales are the basis for much of the posturing that has been observed by manufacturing interests in the Midwest. However, the cost of abatement does have an impact on real wages and total productivity. 28 According to Donald A. Hanson, manager of energy policy at Argonne National Laboratory, the Midwest economy faces "a greater challenge" than other regions because of its manufacturing orientation. 29

The conflicting demands for real wage increases pitted against pollution abatement expenditures may drive up prices and reduce demand and employment. Hanson noted that if the region masters the challenge of product and process improvement in pollution reduction, it may be able to mitigate the potential costs of environmental legislation. "By developing expertise in the design and manufacture of clean processes and environmental controls, some businesses could potentially cultivate a new source of income." 30

II. THE REAL COSTS OF ENVIRONMENTAL REGULATION

Nationally, the costs of pollution control and remediation are projected to consume in excess of $1 trillion in the next twenty years. This represents between 2.5 and 3.0% of the gross national product. These costs are projected on the basis of full implementation and enforcement of existing regulations and schedules of compliance. 31

26. Id.
27. Id.
29. Id.
30. Id.
While these costs will affect almost all businesses and regions of the country, Illinois will be significantly affected.\textsuperscript{32} Illinois ranks high on the list of waste generators. In per capita waste generation, Illinois ranks sixth.\textsuperscript{33} In toxic emissions, it ranks seventh, emitting 133,000 tons annually.\textsuperscript{34} In application of herbicides, it ranks second.\textsuperscript{35} In per capita greenhouse emissions, it ranks fourteenth.\textsuperscript{36} In hazardous waste sites to be remediated, it ranks tenth.\textsuperscript{37}

Compared with others states, Illinois ranks second in expenditures on air quality, fifth in solid waste management and seventh in water drinking quality.\textsuperscript{38} Its per capita environmental protection expenditure of $33.83 millions ranked eighteenth and represented 2.26\% of the state budget.\textsuperscript{39} Almost all of these expenditures address pollution management instead of pollution prevention.

\section*{III. The Role of Government}

The manner in which Illinois defines its role in solving environmental problems will influence the competitiveness of its businesses. The way in which the state uses its regulatory and taxing powers regarding environmental protection will have an impact both on the quality of life and the health of the economy in the coming decade.

\subsection*{A. Prioritizing Environmental Regulations}

Pollution results when producers or consumers use the environment to dispose of their production or consumption wastes. Pollution may be the emissions from an auto or the factory’s volatile organic compounds; it may be the sewage and residuals of products entering the water supply or paint cans dumped at a landfill. The pollution diminishes the environment’s ability to provide a healthy habitat and resources to produce goods and services.\textsuperscript{40}

The very nature of pollution impels the government to intervene. Environmental policy must be based on an interventionist approach.

\begin{thebibliography}{9}
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\item 32. See Rutlege & Leonard, \textit{supra} note 31, at 39.
\item 34. See Wise, \textit{supra} note 33 at 12.
\item 35. \textit{Id.}
\item 36. \textit{Id.}
\item 37. \textit{Id.}
\item 38. \textit{Id.}
\item 39. \textit{Id.}
\end{thebibliography}
"Without government[al] intervention, the environment cannot be fully protected." Pollution, like fraud, is imposed on others for the purpose of individual gain. Government is called upon to determine who will be the winners and losers as it formulates policies and regulations. It must deal with the issues of fairness and justice as it decides how to protect the environment. This task is especially difficult when government must decide who pays and who gains and how much each party is going to be asked to pay.

In order to accomplish the above goal, a value must be placed on the mediums and lives which are being affected by auto emissions, leaking hazardous waste dumps and industrial discharges. Not only must a value be ascribed to the water, air and land, but we must also define what is and what is not environmentally acceptable.

Government must become involved in establishing environmental priorities, educating the public, and setting out clear rules that protect all of us. The manner in which this is accomplished by the government is subject to sharp disagreement. The approaches which government uses in establishing priorities have shifted from pollution control to market driven approaches and management prevention.

B. RISK ANALYSIS IN ENVIRONMENTAL REGULATIONS

Because one of government’s primary responsibilities is to protect its citizens, one of its obligations is to control risk. Risk control begins with assessment and concludes with management. The process of risk assessment deals with the probability of an adverse outcome. The degree of harm and uncertainty posed affects how government will define acceptable risk in accordance with the national interest and environment.

Ultimately, risk assessment is a political process. Having struggled with the issues of risk analysis in his second tenure as director of the EPA, William Ruckelshaus described risk assessment as "a kind of pretense" that covered decisions made on assumptions short of definitive data. The agency’s decisions have been based on a multitude

42. Id.
43. Id. at 12.
44. For a discussion of these market driven approaches to management prevention, see Walter A. Rosenbaum, Environmental Politics and Policy (1985).
of criteria — economic, political, scientific, and administrative. In the process of making these decisions, technical experts and scientists present opinions compatible with their own political, economic, and social perspectives. However, scientific data alone is rarely adequate to define what management decisions should be made.

Risk management is even more political than risk assessment. Risk management involves the enactment and enforcement of guidelines and legislation designed to regulate exposure to and use of particular substances. The political nature of management is due to the manner in which environmental risks are perceived and defined. Perception and definition lead to a particular set of possible solutions and also eliminate other possible sets. Depending on which perspective the state adopts, the solutions are often distinct and exclusive. One party might call for stringent enforcement while another might call for a more flexible application of regulations.

The myriad of regulations at the federal and state levels are a reflection of how problems are defined as well as the manner in which the government agencies define themselves. A change in the role that the environmental agencies have defined for themselves is likely to be as important as the definition of risk and its management through various regulations.

In its role as protector, the government has lain down rules and demanded compliance as evidenced by Environmental Protection Agency regulations. At times, this has produced favorable results by reducing toxic substances in water sources and certain harmful air born particulates. Unfortunately, the command and control strategy has had a limited impact on many other pollutants because regulations were ill-conceived or impractical. Rather than having incentives for compliance, industry has tried to circumvent regulations because they were deemed too expensive or the penalties were uncertain. By demanding a "best available technology" approach, industry is discouraged from innovating and small firms are driven out of business or go under-

46. Id.
47. Id. at 102-06; See also Walter Rosenbaum, The Bureaucracy and Environmental Policy in James P. Lester, Environmental Policy: Theories and Evidence 12-57 (1989) [hereinafter THEORY]; Marc E. Rushefsky, Elites and Environmental Policy in THEORY at 173-91; Stephan R. Thomas, The Environmental Protection Agency: Asking the Wrong Questions 282-88 (1990).
48. See Rushefsky, supra note 47, at 265.
49. The different possible perspectives are job protection versus employment safety.
50. For a discussion of the changes in levels of pollutants and mediums see generally Council on Environmental Quality, Environmental Trends (1989).
ground as regulators deploy their forces to monitor larger firms.51

C. PROPOSED SOLUTIONS TO THE PROBLEM OF RECONCILING ENVIRONMENTAL REGULATION AND ECONOMIC DEVELOPMENT

In order for government to be a part of the solution, it must first look at the causes of the problems. For example, rather than looking at sulphur dioxide as a symptom to be controlled by scrubbers, the problem might be defined and treated by characterizing the problem as a reliance on high sulphur content fuels. Only by going beyond the symptoms and analyzing the root causes can government hope to solve and anticipate problems.

David Osborne’s study of the entrepreneurial spirit in the public sector notes that more and more government agencies have redefined their role to be facilitators and catalysts.52 These agencies are focusing more on their overall missions rather than on defending procedures and standards.53 An illustration of this is the U.S. Office of Technology Assessment’s critique of the EPA.54 It noted that 8600 pages of regulations and 99% of the environmental budget were devoted to pollution control.55 The study urged non-regulatory solutions which could reduce waste generation by 50% in five years.56

Some steps have been taken to combine market solutions with regulations such as emission trading. These steps are likely to show positive results in more cost effective management of pollution.57 However, much more needs to be done at both the national and state levels.58

Government’s traditional tools of rules and sanctions, regulation and deregulation, monitoring and investigation, licensing, taxes, and grants need to be coupled with more non-traditional catalytic tools

52. Id. at 25-48.
53. Id.
55. Id.
56. Id.
58. For example, charging market prices for grazing rights will reduce the damage that leads to erosion; charging user fees consistent with the real cost of collecting and distributing water will promote water conservation; and subsidizing alternative fuels will reduce reliance on pollution generating fossil fuels.
such as changes in public investment policies, public-private partnerships, technical assistance, information and referral, convening and jawboning. While some of these non-traditional approaches have been implemented by recent legislation, real commitments need to be made and dollars allocated to ensure that these approaches are given a chance to succeed. It is possible to learn from past failures of command and control regulation, and chart a new entrepreneurial strategy.

If Illinois is to help its businesses, it must in some respects begin to act like a holding company comprised of diverse entities producing products and services. Some members of the holding company are large and successful, and faring quite well. Other entities exist in stagnant industries, but maintain a solid performance. Still others are struggling and declining either because they have a very small market share, or are in declining industries with contracting markets.

The holding company, being the state, has entire industries in its portfolio, rather than the normal holding company which holds only businesses. It is in the interest of the state to nourish these industries that are major producers of gross state product and are stable, strong or possess growth potential. Those that are weak or represent a declining share of the Illinois' product should be analyzed to see if a turnaround is feasible.

In much the same manner as a holding company, the state has limited resources and personnel that it can allocate to help its portfolio achieve maximum productivity and competitiveness. What the state must do is analyze the opportunities which are open to the individual industries comprising its portfolio. The state must then allocate those resources in such a way as to benefit those industries that are contributing or have the greatest likelihood of contributing to the economy.

In making this determination, there are several question that should be asked. Is this a sustainable industry? How significant is this industry to the state's economy? What is this industry's impact on environmental quality and can that impact be changed if it is negative? How is this industry "connected" to the other state industries? The decision must be based upon a broad and holistic perspective. Rates of growth may not be as important as the sustainability

60. See Daniel G. Marowski, Environmental Viewpoints: Selected Essays and Excerpts on Issues in Environmental Protection (1992) for a topical discussion of solutions to these problem areas.
of the market and the synergistic affects on other industries in the region.

The State of Illinois is home to many mature but stagnant industries. Not attractive as growth industries, they are often overlooked for the real potential they possess, especially if imaginative management and engineering is brought to bear. The state should take a close look at these industries not as groups of businesses to be "harvested," or "abandoned," but as sustainable employment bases. If assistance in addressing environmental issues is offered, some industries that might be overlooked can and will effectively compete in falling or declining markets and earn high returns. Those firms that are able to develop efficiencies in their existing systems can thrive as their competitors falter.61

Growth segments are also an important element that should be considered, and these exist in most declining industries. The key is recognizing these segments and subsegments. Studies of stagnant industries have found that those companies that committed themselves to data collection and analysis were likely to identify segments with growth potential.62 This identification will help these declining industries to become more competitive.

Further, by focusing on product innovation and quality, firms are able to provide premium products and avoid enervating price wars. There is a direct correlation between high quality and innovation on investment return.63 Further, there is evidence pointing to a higher pay-off for stagnant industries that commit resources to research and development.64

Finally, those firms in stagnant industries which were able to achieve cost reductions through greater attention to efficiency increased returns on investment significantly.65 All of these strategies have relevance for firms faced with the mounting costs of stringent environmental regulation.

D. THE CRITICAL ROLE OF THE STATE

The State plays a critical role in determining the success of individual industries and firms. In most large diversified companies,
top management does not set strategy for individual business units.66 These top managers influence businesses' unit strategy through their reporting systems, compensation systems, planning systems, organizational arrangements and personnel selection.67

Through environmental audits and information sharing, a state may help a business define problems and identify opportunities. A state's taxes on pollution as well as incentives for pollution abatement and prevention also affect a firm's profitability and compensation system.

The State should concentrate its resources in service to primary industries where a critical mass of infrastructure and expertise exists. If there are locational advantages because of transportation networks, the State can and should consider ways to support concentrations with its ability to bring public amenities — universities, research parks, convenient transportation — to bear to stimulate continual renewal among core businesses. The renewal may be aided by application of information systems and rewards systems as well as with amenities. The Secretary of Labor, Robert B. Reich, has argued for the need to concentrate symbolic analysts — engineers, financiers and the like — in zones where they create local markets that further spur the economy.68

Illinois must use the collective knowledge of its industries to deal effectively with environmental problems through research and information sharing driven by the forces of global competition. If Illinois can sustain its present core industries by upgrading its personnel and production processes, it may become as Reich says, "a powerful lure to other global webs" of jobs.69 As skills increase and experience accumulates, a region's citizens add greater and greater value to the nation's and world's economy and consequently improve the standard of living. Without adequate skills and infrastructure, Reich points out that investment for high skill jobs will be lured away and the region will be plagued by low wages and low taxes.70

The benefits of investment in specific industries by the State are influenced by the nature and structure of competition in the industries. The most important influences are rivalries among existing firms, the bargaining power of suppliers and buyers, and the threat of new

66. Id. at 166.
67. Id.
69. Id. at 265.
70. Id.
entrants to the industry or substitute products or services. The State, like a business, must find a position in the economy where it can best assist industries to protect themselves from competitive forces or to influence those forces in their favor.

Michael Porter has effectively argued that the collective strength of the competitive forces may be painfully clear, but the key for developing a strategy is to delve below the surface and analyze the sources of this competitive force.71 Knowledge of these underlying sources of competitive pressures highlights the critical strengths and weaknesses of the company, and animates its positioning in its industry.72 The knowledge also clarifies the areas where strategic change may yield the greatest payoff, and highlights the areas where industry trends promise to hold the greatest significance as either opportunities or threats.73 Further, understanding these sources will also prove to be useful in considering areas for diversification.

IV. POLLUTION PREVENTION AND ECONOMIC DEVELOPMENT

In the future, sustainable competitive advantages will increasingly depend on new process technologies rather than on product innovation. In our global economy, comparative advantages will derive from man-made advantages as much as if not more than natural resource endowment and capital endowments.74

Positive correlations between research and development and competitiveness have been demonstrated by economists. However, not all research and development produces similar results. American research and development has focused on product innovation while the Japanese focus has been on process innovation.75 Statistical analysis has shown that if U.S. industry were to switch some of its research and development funds from product innovation to process innovation, without increasing overall expenditures, U.S. trade performance would improve. A recent study shows that more research and development

71. Michael Porter is a professor of business at Harvard University where his research and writings on competitive strategy and advantage have shaped a new generation of scholarship and management.
73. Id.
leads to a correlation of sales ratios to superior export performance. Additional research affirms that process innovations rather than product innovations are more effective in raising productivity.

Process innovations succeed where there is excellent communication between different participants in the production process. However, U.S. companies are structured in ways that discourage "seamless communication." Closer ties between producers and equipment and component suppliers are needed to foster effective innovation. While many businesses seem to be heading in this direction, there is a need for conveners and facilitators to help businesses overcome years of myopia.

In order for Illinois to be competitive, the State must incorporate environmental solutions into its core businesses. Dollars strategically spent in these core businesses will result in a significant payback. Unfortunately, Illinois' businesses have been lackadaisical in the area of future spending.

Illinois spent 2.1% of the gross domestic product on research and development compared to the national average of 2.7%. Of the $5.3 billion spent, 76.3% came from private industry funds. Since 1985, Illinois' share of research and development funding has declined in relation to the national average.

Because the economic structure of the economy is reliant on several core industries which are also significant generators of pollution, there should be a linking of the efforts to rebuild the economy along with attainment of environmental goals. By joining these two goals, the state may be able to make more rapid progress in its efforts to secure a sustainable and healthy tax base and a cleaner environment.

In the past year, the Department of Commerce and Community Affairs, has undergone a dramatic reduction in funding and is in the process of refocusing its energies. Past programs such as "Corri-

77. See Yates, supra note 75. See also Ronald E. Yates, Customers Sharing on R & D Road, Chi. Trib., June 28, 1993, § 1, at 1.
78. See Caravatti, supra note 76, at 9.
79. See Kane, supra note 8, at 113.
80. This result is significantly lower than the Midwest's average of 82.5 percent of funds coming from private industries.
81. See Kane, supra note 8, at 107, 113.
82. This department is the State's economic development agency.
dors of Opportunities" are giving way to a new era of state programs. Using a report prepared by the Center for Economic Competitiveness as a guide, the State is focusing on clusters of industries that when linked together, provide a sustainable economy by servicing and supplying one another, as well as exporting products to the region, nation and globe. By fostering communication among the members of the clusters, these business segments will become more responsive to one another's needs.

Part of this new responsiveness to needs involves the provision of supplies and inputs that are environmentally safe and designed to reduce waste and demand less energy. The key to this economic development strategy is to take advantage of the interrelatedness of Illinois' economic base, enabling it to service its own needs and attract new business partners to the aforementioned clusters.

V. GOVERNMENTAL AGENCIES AND THEIR ROLE IN ENVIRONMENTAL REGULATION

Central to the needs of the clusters, but not provided for in the revitalizing strategy, is adequate access to waste and pollution prevention research and technical assistance. Presently, the State of Illinois has two agencies that are endeavoring to assist the thousands of businesses to become more competitive through environmental innovations. The Office of Pollution Prevention in the Illinois Environmental Protection Agency and the Hazardous Waste Research and Information Center combined have few staff and ever diminishing budgets.

A. OFFICE OF POLLUTION PREVENTION

The Office of Pollution Prevention offers permitting assistance, technical assistance through its engineer interns, and on site visits by staff through a hazardous materials exchange program. Established in 1989 to implement parts of the Toxic Pollution Prevention Act,

83. "Corridors of Opportunities" focused on geography more than industry and the politics of municipal interests.
85. These clusters are very comprehensive, ranging from agriculture and food processing to industrial machinery.
86. See Economic Leadership, supra note 84, at 1-10.
the agency suffers from its association with the regulatory agency. Because businesses are fearful that a call for help may lead to stringent inspection and a citation, they have been slow to ask for help. In fact, to assure businesses that an offer of assistance from the Office of Pollution Prevention will not be an invitation to special scrutiny and penalties, the legislation may be amended this session to provide specific assurances that a call for help is just a call for help.

B. HAZARDOUS WASTE RESEARCH AND INFORMATION CENTER

Formed in 1984, the Hazardous Waste Research and Information Center (HWC) was charged to: combine research and education; information collection, analysis and dissemination; and to direct technical assistance to industry, agriculture and communities. Under the provision of the Toxic Pollution Prevention Act, these services were formalized into programs under the control of the Center. Of greatest import to the competitiveness of industries are the State's pollution prevention programs combined with their access to information.

The most visible portion of HWC's Pollution Prevention Program is its technical staff assistance for businesses, institutions and governmental units. The HWC provides pollution prevention assessments for Illinois companies through on site visits. Processes and operating procedures are examined to identify types and sources of waste; and existent company pollution prevention strategies are critiqued to help the company further reduce waste. Further, the staff helps companies develop and implement their pollution prevention programs through analysis of existing processes. (HWC pledges that no regulatory action will be taken as a result of a site visit so that a long term relationship can be established.)

HWC supports clean technology development and demonstration projects by providing matching grants for applied research. The intent is to assist industry in modifying processes to eliminate, reduce or substitute toxic materials; as well as developing processes capable of reducing, detoxifying or recycling waste streams.

Through the HWC's technical assistance, businesses have been able to realize substantial savings and eliminate future liability for

90. See FY 92 ANNUAL REPORT, supra note 89, at 50-53.
91. Id. at 53-56.
waste. R. B. White Inc., a Bloomington metal fabricator that used a phosphating/degreasing bath process, was able to reduce its waste generation by ninety nine percent by implementing a new process that paid for itself in only seven months. 92 Equally important, it enabled the company to improve product quality.

HWC also offers training opportunities and pollution incentive grants to industry. Through conferences and workshops, as well as its formidable library and bibliographic database, the Center actively supports technology transfer to help remedy environmental problems. 93

The activities of the Office of Pollution Prevention and the HWC are consistent with the need to link competitiveness to pollution prevention. The failure of the State to adequately fund these constructive initiatives, which mesh with the economic and development strategy of the state, should be redressed immediately.

CONCLUSION

Sound governmental policy must focus more and more on designing regulations that encourage companies to devise new processes and products which put its industries ahead of the market. Also, sound government policy provides catalytic support to help realize policy consistent goals. To date, Illinois has created some of the necessary structures and programs in support of sound economic and environmental policy. However, the State of Illinois has yet to demonstrate full commitment to these structures that can help improve both its economic and environmental health.

When these things are accomplished, the economic well being and the environmental well being of Illinois will thrive side by side. Otherwise, the economy and the environment will continue on a downward spiral.

92. Id. at 55.

93. Id. at 56-61.