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Petersen, Raymond Edward, Ph.D.

City University of New York, 1990

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PUBLIC POWER AND PRIVATE PLANNING:

THE POWER AUTHORITY OF THE STATE OF NEW YORK

by

RAYMOND PETERSEN

A dissertation submitted to the Graduate Faculty in Political Science in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

1990

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This manuscript has been read and accepted for the Graduate Faculty in Political Science in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

10/9/90
Date

Robert Engle
Chair of Examining Committee

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Abstract

PUBLIC POWER AND PRIVATE PLANNING:
THE POWER AUTHORITY OF THE STATE OF NEW YORK

by

Raymond Petersen

Adviser: Professor Robert Engler

The public-power movement has spawned some of the most celebrated hopes for a public administration geared to democratic planning. This study traces the development of the Power Authority of the State of New York as a champion of the public-power movement in the 1930's and 1940's through its emergence as an agent of corporatist planning in the 1960's and 1970's. Throughout, the issue of how energy planning could be conducted in a democratic manner, with considerations of end uses of energy, is explored.

Focusing upon the impact of citizen participation on electric-system planning, the activities of the Power Authority, a public corporation, are compared with those of the Niagara Mohawk Power Company, an investor-owned electric utility. As the operations of these two electric

utilities became increasingly coordinated, they both demonstrated less receptivity to public oversight. Since the Power Authority was a model for the grass roots democracy of the Tennessee Valley Authority, its transformation into an agent of corporatist planning illustrates the effect of the privatization of energy policy. By contrast, the activities of citizen intervenor groups in challenging the energy-demand forecasts and project planning of the utilities show the potential for an energy-planning process driven by public objectives.

The costs of corporate planning of the energy system--including artificially inflated demand, inflation, dependence upon the nuclear fuel cycle, and the loss of industry due to high energy costs--are linked to both the emergence of a technostructure in the planning process and to the impact of the money markets upon utility planning. Posited against the corporate planning model is that of democratic planning by publics, where energy policy is shaped by citizens organized in pursuit of democratic development. The successful citizen intervenor challenges to utility demand forecasts demonstrate the effectiveness of public involvement in energy policy.

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INTRODUCTION

In 1970, the first major change in utility regulation in New York State in forty years occurred when Governor Nelson Rockefeller announced the revamping of the Public Service Commission. The cause of the restructuring was the crisis faced by the State in coming to grips with rapidly escalating demand for electricity. In Rockefeller's words, the regulatory process in existence since 1907 was no longer adequate to meet the task of ensuring that the public interest would be served:

> The problems of today and the coming decade ... are vastly different from those which have confronted the Commission in the past. Rapid changes in technology, increased consumer demands, and a growing concern for the protection of the environment require a new approach and modern administrative techniques to meet the challenge.[1]

The restructuring of the Public Service Commission and several other measures to be explored here were directed toward the establishment of a planning system for the production and distribution of electricity. The thrust behind these measures was provided by consumer advocates, environmental groups, interested government officials, and the utilities themselves. The questions to be considered here are: who is planning, and in whose interests?

Public pronouncements of legislative intent indicate that the reason for the reforms was to facilitate public input in energy planning. Indeed, throughout the 1970's the State

mandated more opportunities for citizen involvement in energy planning, and for a time provided substantial funding for intervenor groups participating in the process. However, behind the appearance of increased decision-making power for citizen's groups was the reality of the diminution of community controls over energy projects as zoning laws were superseded and procedures for licensing were streamlined. At the federal level, there were proposals to streamline powerplant licensing, particularly for nuclear plants, in an effort to speed up the construction of additional generating capacity.

Another oft-cited reason for overhauling the regulatory framework in New York State was the need for greater reliability of supply. Toward this end, both the public and private electric utilities first were required to prepare and submit long-range plans to the revamped Public Service Commission (PSC).[2] Later, they were required to subject those plans to review and cross-examination by the PSC and interested citizen groups,[3] and finally to cooperate in the development of an independent State energy forecast.[4] Occurring at the same time as this movement toward greater State involvement in demand forecasting and project siting was the increase in joint projects among the utilities in the areas of research and development, project financing, demand forecasting, and construction planning. These joint efforts indicate the development of an industry-wide response to the

threats of citizen encroachment upon corporate prerogatives. Thus, as with the increase in citizen input, the increased public-sector involvement in energy planning cannot automatically be characterized as an advance in the direction of democratic energy planning.

What emerged instead as the dominant form of electrical-system planning is the utilities' version of John Kenneth Galbraith's Revised Sequence, where "the producing firm reaches forward to control its markets and on beyond to manage the market behavior and shape the social attitudes of those, ostensibly, that it serves."[5] Within the Revised Sequence, citizen intervenors may be allowed to question the particulars of proposed projects; but attempts to inquire too deeply into issues such as need for additional generation or for transmission facilities in the aggregate are discouraged. When the utilities' capacity to manage the electrical system was threatened by advocates of greater citizen involvement in decision-making, there followed attempts by utilities to circumscribe the input of those citizens.

Throughout this study we will be considering the development of electrical-system planning in New York State. Planning in the most general sense is a process for implementing a course of action. With regard to the ramifications for the political system, economic planning includes a broad range of activities, all of which connote some type of intervention into, and deviation from, a

classical market economy. But since planning does involve such a wide array of activities and embraces a range of objectives about the political order, it is essential to develop the concept of planning here with more specificity and clarity.

Planning is a conscious process of decision-making which promises control over the outcomes of a course of action. It also offers the opportunity to enhance the rationality and efficacy of decision-makers concerning both the course of action and the planning process itself. That is, the decision-makers should be able to produce more desirable outcomes as well as to refine the planning process, in order to make it more effective. An obvious corollary to this element of planning is that the decision-makers will refine and restructure the process in such a way as to enhance their own decision-making effectiveness, which may come at the expense of the efficacy of others affected by the planning process. Because planning produces a decision-making structure which has a controlled access to decision-making arenas, it has profound implications for the functioning of political processes involved in public policy.

Firms engaging in planning do so in an attempt to have some control over, or to effect, the outcomes of the working of a market economy. They wish to control costs of production by buying up sources of raw materials, negotiating no-strike labor contracts, and avoiding the possibility of high

transport costs to market for the goods they produce. As John Kenneth Galbraith observes, they also seek to control the behavior of consumers by expanding their goods' markets through advertising.

Firms also cooperate to limit competition and to expand the scope of planning so it will encompass activities maintaining a private-property order against incursions by forces seeking to challenge that order. In this sense, planning serves as a means to maintain and reproduce a particular system of order and property ownership. Consequently, while it provides the means to control outcomes, it also forecloses alternative options. In more particular terms, it allows groups of firms to fend off the challenges from public-sector groups wanting to impose greater public intervention in the activities of those firms. This is what is meant here by corporatist planning, a process having the sanction of the state, and enabling groups of firms to plan for economic growth and to maintain a private-property system.

Moving to a consideration of public planning, it is essential to recognize that government planning often is geared toward promoting economic growth. However, due to dysfunction in the market, most notably in the boom-and-bust character of the operation of a free-market economy, governments also are called upon to engage in planning to redistribute the benefits of economic growth, in order to promote what some authors have called economic development.[6]

This is public planning in the sense that it is conducted by government, and establishes public controls over the conditions of economic growth.

Another specific feature found in public planning is the objective of caring for the ecological or environmental damage caused by the workings of the economy. This occurs because segments of the public become concerned about damages to the environment; and there is normally very weak motivation for firms to take these damages into account in their own planning. Thus, the government is called upon to intervene because normal market operations would not provide the environmental protection the public demands.

However, there is no guarantee that public planning is democratic planning, especially when the scope of decision-making is not expanded to include all individuals affected by the decisions. If the process is not one which encourages participation and does not seek to enhance the efficacy of ordinary citizens in decision-making, then it is not democratic planning. In this sense, public-sector planning can serve as a means to offset the problems of the market and to legitimize the private ownership of the productive forces in the economy, without offering opportunities for mass participation in decision-making concerning the shape of the economy.

Democratic planning encourages the development of conscious decision-making concerning the development of a

social system. Recognizing that changes in economic institutions have an ecological impact upon political, social, and cultural institutions, democratic planning promotes a sense of the workings of a system for all individuals affected by the planning process. It necessarily must be participatory and must seek to enhance the efficacy of all individuals involved in the planning process. This planning process would challenge corporate planning and corporatist planning because these partial planning systems leave segments of the population open to the vicissitudes of the market. Democratic planning seeks constantly to expand the scope of the planning process, in order to involve more people in decision-making. In this sense, democratic planning undermines the maintenance objectives of those planning processes and opens up the possibilities for alternative objectives to be introduced into planning. Throughout this study, examples have emerged of all of these types of planning. Consequently, as the advantages, costs, and benefits of these planning processes become clearer, the objective here is to discern the requirements for democratic planning.

That the investor-owned electric utilities would frustrate attempts to extend public controls over them would come as no surprise to the student of their history. An accomplice in those activities was the Power Authority of the State of New York, a public-benefit corporation created in 1931 as a vehicle to establish yardstick competition with the

private utilities. The role of the Power Authority with regard to citizen participation over time in energy policy provides the focus here of the struggle between corporate planning and democratic planning.

The electrical-utility industry was born under conditions of the classical competitive market. It was not uncommon to have several electric companies serving the same city. Consequently, electric-utility companies were compelled to compete for shares of the electric market and for franchises from local government officials.

Samuel Insull is credited with inventing the policy of State regulation for the private electric utilities in 1898, regulation which served to overcome the problems of utilities faced with competition for municipal franchises and with threats from municipally owned utilities. The electric-utility industry through its lobbying front, the National Electric Light Association, advocated the establishment of statewide regulation to move utilities out of the competitive market economy.[7]

Some citizen groups and government officials recognized that the electric-utility industry tended toward a natural monopoly within its service areas. These groups then struggled to establish public ownership of electric-utility services. A number of benefits were foreseen by public-power advocates: public control of natural resources, primarily water power; lower electric rates or contribution of revenues to local

treasuries; greater likelihood of extension of service to outlying areas, farms, and rural electric customers; and the enhancement of home rule. The common thread tying together these arguments for public power and those advanced by later successors to the public-power movement was that public power would serve as a check on the abuses resulting from private-monopoly control of the electric-utility industry.

Beyond the argument that public power was needed to check private abuse was the conservation movement's claim that only government could make optimal use of all the resources available from river-basin development. The major problem that the conservation movement had with the private-power industry was that the latter tended to exploit inexpensive sources of hydropower without developing all of the other resources of the river, or protecting against soil erosion. Furthermore, the private-power industry failed to extend electrical service to farms and residential customers in rural areas, even though it was generating low-cost power from prime sources. The private-power response to this criticism was to argue that there was insufficient demand to pay for extension of service into these areas. But, the conservationists maintained that private-power interests consistently underestimated the demand for power and should relinquish water-power resources for public development. Thus, an early focus of the conservation movement was that public development would provide for greater, and more efficient, utilization of

natural resources.

The history of the development of the electric-utility industry can then be seen as a dialectical tension between the objective of the private-electric companies to preserve their autonomy from public controls, and the objective of the public-power movement to establish public control of this industry. It will be argued here that this tension has resulted in the development of corporatist planning in the electric-utility industry. Corporatist planning here is defined as private-sector planning, sanctioned by the State, which maintains a private property order. This political economy has the appearance of a free market, while allowing in actuality for the utilities to transcend the conditions of competition assumed to attend the market.

Despite the challenges from federal power agencies, from the municipal-power movement, and from environmental and consumer critics, the private electric-utility companies in the United States have enjoyed notable success in maintaining private control over the industry's development. The result has been an electrical system subservient to private objectives.

Consequently, while electric utilities are not the only ones to engage in corporatist planning, their long history as regulated monopolies provides ample evidence of the objectives and strategies of corporate planning. But a perhaps more significant reason why they are the focus of this study is

that, unlike other industries such as oil and steel, they have been faced with opposition from citizen movements which have been a significant part of their planning environment. The particular activities of the utilities to counteract or to contain the influence of the citizen movements upon corporate planning is the focal point of interest in this study.

However, the evolution of corporatist planning is only half of the story. Citizen groups organized in response to perceived threats of high electric rates, health hazards from operation of nuclear power plants, and environmental damage from fossil-fuel electricity generation searched for the means effectively to challenge utilities' plans to construct dozens of new generating plants. In the process of that search, they achieved more than the expansion of citizen input in policymaking and the defeat of the siting of power plants: citizen intervention in energy policy both exposed the costs of corporate planning, and demonstrated the potential of a democratic planning process which considered end uses of energy and conducted public forecasting of energy needs. In this sense, citizen participation in energy policy reveals the essential elements of a planning process accountable to democratic controls.

Robert Lynd recognized the enhancement of citizen participation as a crucial ingredient of the thoroughgoing democracy that he posited against the erosion of liberal democracy by concentrations of private power. The efforts by

citizen groups to take charge of electrical-system planning demonstrates power as a resource of a democratic political system, not exclusively as a source of concern and the object of checks and controls.[8] In this sense, those citizen efforts provide us a glimpse of the vision--a central part of American political thought since Jefferson--of how citizen participation could be the foundation of democracy in America.

ENDNOTES

[1] New York State Legislative Annual--1970, p. 466.

[2] Laws of New York for 1970, Chapter 155.

[3] Public Service Law 149-b, 1972.

[4] Laws of New York for 1978, 55-112.

[5] John Kenneth Galbraith, The New Industrial State, Boston: Houghton Mifflin, 1967, p. 212.

[6] Richard Barnet and Ronald Muller, Global Reach, New York: Touchstone Books, 1974, pp. 148-149.

[7] This subject is treated at length in Insull, Chicago University of Chicago Press, 1962, pp. 87-89 and 103-113. Also, a concise summary is found in Douglas Anderson, "State Regulation of Electrical Utilities", The Politics of Regulation, James Q. Wilson, ed. New York: Basic Books, 1980, pp. 4-9.

[8] Robert Lynd, "Power in American Society as Resource and Problem", from Problems of Power in American Democracy, Arthur Kornhauser, ed. Detroit: Wayne State University Press, 1959.

I. PUBLIC CONTROL OF WATER POWER

The movement to establish both electric-utility regulation and the Power Authority of the State of New York developed out of the desire for public control of hydropower resources. As early as 1891, the commissioners of the New York State Reservation at Niagara Falls had cautioned against "the improvident granting of franchises of enormous value, without recompense."[1] By 1906 the issue had grown to major proportions, as witnessed by the gubernatorial campaign which pitted Charles Evans Hughes, advocate of State regulation of private-utility rates, against William Randolph Hearst, an advocate of publicly-owned power. Despite his preference for regulation, Hughes, once elected, pushed for the Water Supply Commission to develop a comprehensive plan for the "use of water courses for purposes of power."[2] His urging led to the passage of the Fuller Act, which placed the planning of water-power development "under public ownership and control."[3] Obviously, the development of water-power resources was considered to be a matter for state direction; but the degree and kind of state involvement was still unresolved.

The first proposal for what would later become the Power Authority was made in 1912 in the Second Annual Report of the New York State Conservation Commission, which recommended State-owned hydroelectric generation and transmission

facilities to provide electricity to municipalities at cost. This would fulfill one of the central tenets of the public-power argument: that electricity, as a public necessity, would not have to be purchased from private utilities at a rate set by what the traffic would bear. However, opposition by Republicans in the Legislature effectively prevented this recommendation and other public-power measures from being enacted for over a decade.[4]

The concept of a Power Authority was originally presented by Governor Alfred Smith in 1923. Smith had been active in opposing private control of hydropower resources since his term as Assembly Minority Leader in 1913-1914. During his first term as governor (1919-1920), he proposed legislation to allow municipalities to take over their electric utilities (this legislation was finally enacted in 1934 during the Lehman Administration).

At the start of his second term, Smith expressed his support for State development of water power in the interest of all residents of New York State.[5] Despite his re-election in 1924, Smith was unable to advance the Power Authority into reality because of Republican control of the State Water Power Commission.

However, the basic elements of what was later to become the Power Authority were already in place. The agency was to be a public corporation,

> ...municipal in character, having no stockholders, deriving its powers from the State and having

> placed upon it the duty to take over and develop the State's power resources in accordance with a plan to be submitted to the Legislature for approval by law. Such a public corporation should be given the power to issue bonds to be sold to private investors which would be exempt from State taxation and would be insured by the revenues to be derived from the improvements when made. In this way the valuable franchises which the State itself would own would be capitalized, not in the interest of private stockholders but in the interest of the public.[6]

Governor Smith had a number of objectives for his proposed State Water Power Authority. First was the provision for the maintenance of the State's water-power resources under public control. Second, through the issuance of tax-exempt bonds there was a mechanism for the State to construct the power plants without legislative appropriations. As originally developed in Great Britain, the public authority was to be a self-dissolving enterprise. The following description of public corporations in the United States prior to the 1930's illustrates that this principle was the rule, with the lone exception of the Port of New York Authority:

> ...every public authority created in the United States had been created in a single pattern: each had been established to construct and operate one, and only one, public improvement... to issue only enough bonds to pay for the construction of that improvement, and only bonds with a fixed expiration date, and, when that date arrived - or sooner, if revenue was collected faster than expected - to pay off the bonds, eliminate all tolls or fees, turn the improvement over to the city and go out of existence.[7]

In 1923, Governor Smith envisioned the Power Authority would be created to operate based on the same principle.

Perhaps the most significant objective for Smith, from a public-power perspective, was embodied in the provision to regulate electrical rates through the contracts between the Power Authority and its municipal or investor-owned utility distributors. Featured later in the enabling legislation for PASNY, the contracts aimed at establishing "true costs" for hydropower generation. This guideline was considered to be the foundation of yardstick competition. From Smith's perspective, the need for the Power Authority's contract leverage was a direct result of the failure of rate regulation:

> ...the recent history of rate-making in the field of electricity indicates very clearly that very little in the way of safeguards can be expected through regulation, and that the only way of protecting the people of the State is through the power of contract, where the State controls and maintains in its own hands such natural power resources as belong to it.[8]

The central question here concerning the philosophical underpinnings of the public corporation is the subjection of its powers to public controls. First, Smith's advocacy of a public corporation selling electricity at cost is consistent with the view of the public-power movement of the time. Second, the proposal to establish the Authority through a voter referendum indicates that he saw the public corporation as a mechanism for the reinforcement of citizen initiative. Finally, it also should be noted that Smith intended the Power Authority to prepare a comprehensive development plan for the State's hydropower resources, to be submitted for legislative

approval. These measures indicate that the Power Authority was to be checked by both citizen action and legislative oversight.

THE PRIVATE UTILITY RESPONSE

Throughout the period when public-power advocates in New York were pressing for public development of the St. Lawrence River, and later for the creation of the Power Authority, the investor-owned utility industry had shown a marked preference for rate regulation as the method of public control of the industry. In a speech to the National Electric Light Association in 1898, Samuel Insull first stated what came to be the industry position on regulation of utilities by quasi-judicial state commissions:

> First--Franchises granted to public-service corporations should secure them the same degree of protection in their rights to their property as is enjoyed by other investments.
>
> Second--Public control of charge for service, based on cost plus a reasonable profit, and eliminating the factor of competition, is the proper safeguard for the interests of users, taxpayers and investors.[9]

Insull himself had faced the difficulties of purchasing franchises for his utility, Chicago Edison, from corrupt city councilmen.[10]

In this light, Insull's advocacy of state regulation is best understood as an example of the emergence of political capitalism, defined by Gabriel Kolko as "the utilization of political outlets to attain conditions of stability, predictability, and security--to attain rationalization--in

the economy."[11] Kolko defines rationalization as "the organization of the economy and the larger political and social spheres in a manner that will allow corporations to function in a predictable and secure environment permitting reasonable profits over the long run."[12] Of course, Insull was not initially successful in convincing the majority of utility executives of the advantages of state regulation, but the growth of the municipal-ownership movement served as a convenient threat to whip recalcitrant utilities into line. This was clear by the 1907 Convention, when the NELA formally endorsed state regulation. In that same year New York State, under the governorship of Charles Evans Hughes, became one of the first to set up a public service commission to regulate public utilities.

Kolko's thesis is directly counter to the early view of electric-utility regulation put forth by William E. Mosher and Finla Crawford in 1933. Their view of the private utilities was that "with unvarying consistency and stubbornness, all the political influence at their command has been mustered, in the first instance, to oppose the establishment of regulatory bodies and later the extension of the powers of such bodies, when once established."[13] Of course, Kolko's thesis relates to corporate views concerning where regulation could be most responsive, or unresponsive, to their interests.

In 1947 Leland Olds, Federal Power Commission Chairman, referred to the proposal by Walker Cisler, President of

Detroit Edison, to amend the Federal Power Act to facilitate power pooling. This would bring to consumers, Cisler argued, the benefits of greater economy and reliability of service as well as a strengthening of national security. However, in Olds' words, "the price the people must pay for these advantages was to grant the companies immunity from federal regulation."[14] In this regard utility views toward regulation are generally more favorable toward state regulation of rates, but federal regulation on nuclear power matters.

This demonstrates the necessity of making distinctions regarding the kinds of regulation taking place in any effort to discern industry views. The social regulation "not geared to a specific industry but to the general public", engendered by the public interest movement of 1960's and 1970's, was met by a business counter-movement favoring deregulation.[15] The fruits of social deregulation measures included low-quality products, declining market shares for U.S. companies, product liability litigation, and a surge of company appeals to government for support against liability claims.[16]

The regulation desired by the electric utilities was what Tolchin and Tolchin described as economic regulation, "geared to benefit a specific industry".[17] The changes in the regulatory framework discussed here had utility support because the framework in existence was too restrictive of utility planning efforts and had become too responsive to

utility opponents. At the same time the utilities continued to support those features of the state regulatory framework that provided barriers to entry of competitors.

While the establishment of the PSC may have stabilized the industry and provided some public control over electric rates, it did not serve to address two major issues which fueled the push for the creation of the Power Authority. The first, the issue of ownership and control of the State's hydropower resources, has already been discussed here from the public-power advocates' perspective. The history of private efforts to control hydropower development will be discussed below. The second issue not addressed by state regulation was the reluctance of private electric utilities to extend service to rural and residential markets, seen as insufficiently profitable. This latter issue will be examined as a central feature of the Franklin D. Roosevelt approach to the power issue.

The waterpower of the St. Lawrence River at Long Sault Rapids was a prize which had been coveted by private utilities and private industry since before the turn of the century. In 1907 Governor Charles Evans Hughes granted a franchise to the Long Sault Development Co., subsidiary of the Pittsburgh Aluminum Company for a brief period, apparently before it was realized just how much hydropower was at stake. However, some months later Hughes signed into law a measure to create the State Water Supply Commission, empowered to develop a

comprehensive plan for development of all of New York's water-power resources under State ownership and control. Later, in 1914 under Democratic leadership, the grant to the Long Sault Development Company was rescinded; yet, in the following year the Machold Act established river-regulating districts which could grant leases to private companies for power development.

The Republican Party had taken control of both houses of the legislature and of the governor's office in the 1914 elections, thus turning power policy in the direction of private-power promotion. The philosophy behind this legislation was that involvement by the State "was to be restricted to regulation by these [river-regulating] districts."[18] H. Edmund Machold, sponsor of the legislation, symbolized the relationship between private-power interests and the Republican Party when he retired from his post as Assembly Speaker in 1925 to become state GOP chairman and president of Niagara-Hudson, simultaneously.[19]

Public-power advocates led by Alfred Smith fought the leasing of the St. Lawrence under the Machold legislation right up to the point of the authorization of PASNY's St. Lawrence hydropower project. Despite their efforts, the same State Water Power Commission created by Hughes in 1907 moved to grant a lease in 1926 to the Frontier Corporation, a subsidiary of General Electric, E.I. Du Pont, and the Pittsburgh Aluminum Company, for the St. Lawrence River site.[20] When Governor Smith responded with threats of legal

action, the applications were withdrawn. With the defeat of the Frontier Corporation application for a St. Lawrence franchise, the private utilities moved to block the creation of Smith's Power Authority by seeking the establishment of a study commission on St. Lawrence power. Neither was able to press its position into law as the 1928 election approached. The situation in New York State paralleled the issue of the disposition of Wilson Dam at Muscle Schoals, which also raged throughout the 1920's. In this sense, the refusal of Al Smith and Franklin Roosevelt to allow the private exploitation of the St. Lawrence was similar to Senator George Norris's effort to block Henry Ford's acquisition of Muscle Schoals. The question of the control of St. Lawrence hydropower development thus was left to be decided during Franklin Roosevelt's term as governor.

FRANKLIN ROOSEVELT AND NEW YORK PUBLIC POWER

Franklin D. Roosevelt had been associated with the advocates of public power since his first term as a State Senator, when he had been instrumental in repealing the license of the Long Sault Development Company. Picking up the St. Lawrence River development issue from Al Smith, he continued to push for the creation of a State Power Authority, but added the provision that the Power Authority should provide electricity directly to rural and residential customers in New York State. As Judson King, Director of the

National Popular Government League, explained in an election memorandum for Roosevelt in 1936, Al Smith had changed his position between 1923 and 1927 on state ownership and operation of transmission lines. Although King had written to Al Smith twice in the 1928 campaign asking "if he would advocate the right of the State of the Federal Government to build public transmission lines if the private companies ganged up and refused to grant fair rates to the people in contracts such as he proposed", Smith had refused to answer.[21]

This public-preference aspect of the Roosevelt Power Authority was a major threat to the private utilities, prompting them to continue their fight against the creation of the Authority and later to obstruct the negotiations with Canada over the actual development of the St. Lawrence hydro project. This public-preference provision comes directly from the St. Lawrence Power Commission report:

> All effort should be made to secure the maximum possible reduction in rates to domestic and small commercial users. In other words, we believe that the principle of "selling on a commercial basis" should be applied to industrial consumers of power, and that the resulting profits on this business should be applied to the reduction of rates of other consumers.[22]

This is a clear expression of Roosevelt's desire that the Power Authority be used as an instrument of countervailing power against the holding companies in New York State.

During Roosevelt's first term as governor, J.P. Morgan Jr. moved to seize a larger share of the bond market in the

utility industry. In order to accomplish that goal, he was compelled to acquire the operating utilities themselves. Two of the six utilities that were formally under the directorship of Morgan United Corporation were in New York State: the Consolidated Gas Company and Niagara Hudson Power Corporation.[23] Roosevelt's response to this development was to use the Power Authority as a mechanism to ensure that the hydropower resources of New York State were to be used for the benefit of the small consumer. The justification for this policy also comes directly from the majority report of the St. Lawrence Power Commission:

> ...it must always be borne in mind that as a practical matter, the large consumer of power is able to protect himself much more effectively than the small consumer who is unable to cope with the situation. It is he who stands in great need of help from the State.[24]

Thus, Roosevelt and the St. Lawrence Power Commission added another philosophical underpinning to the effort to keep public control of the St. Lawrence River. While Al Smith had argued for the Power Authority because its bonding authority would make it free of political control through legislative appropriations, Roosevelt moved to have the Power Authority accountable through: [1] legislative appropriations for administrative purposes; [2] review and approval by the governor of contracts between the Power Authority and others for electricity;, and [3] public hearings on those contracts to allow citizens the opportunity to inform the governor and trustees of any objections they might have to the contract

terms.

THE POWER AUTHORITY'S EARLY ACTIVITIES

The establishment of the Power Authority in 1931 brought a boost to public-power advocates, but it failed to answer definitively the basic questions raised since the beginning of the controversy over St. Lawrence hydropower. For instance, one basis for the yardstick competition of contracted rates was to be the inexpensive State-generated hydropower; but that depended upon the successful negotiation of a treaty with Canada. However, while PASNY was unable to receive the go-ahead to begin construction of the St. Lawrence project for two decades, it was not idle in establishing itself as a source of support for the public-power movement.

In its first decade of existence, the Power Authority concentrated its efforts on developing rural and residential power marketing to expand electricity use beyond industries and urban areas. Indeed, since the Niagara Hudson utility system had been the only bidder for St. Lawrence hydropower, it was necessary to encourage the development of these markets in order for PASNY to implement effectively its public-preference clause for electricity distribution. Along with the efforts to develop new markets, and due to the weakness of small power consumers, PASNY conducted a number of studies that indicated the causes of the lack of electricity consumption and suggested some policy initiatives. In its Fourth Annual Report, the Power Authority submitted a report

demonstrating the positive impact of rate reductions on residential electricity consumption. Other electrical-consumption studies indicated that the reason for high rates and for little promotional effort was the lack of competition from interlocking gas and electric companies. During the same period of time, PASNY also produced case studies of the benefits of municipal utilities' competition with investor-owned utilities; of the advantages of rural electrification; and of the means to stimulate industrial development through promotional electric rates.

Finally, the Authority conducted a cost-of-generation study demonstrating the clear cost advantage of hydropower relative to steam generation. One of the early successes of PASNY was its sponsorship of legislation to permit municipalities to own their electrical systems. This legislation had originally been proposed by Al Smith in 1919, but was not enacted until 1934 under Governor Herbert Lehman.

Throughout this period, the private utilities in New York State were engaged in various efforts to obstruct the Power Authority's negotiation of a treaty with Canada to allow the St. Lawrence development,[25] and worked successfully to have the Power Authority's appropriations cut by the legislature as well.[26] Robert Caro also noted in The Power Broker that the price for Republican Party support for Robert Moses' run for Governor in 1934 apparently was the dissolution of the Power Authority, so that the St. Lawrence franchise could be

turned over to a private utility.[27] The intent behind these efforts was twofold: to get rid of the threat of yardstick competition, and to restore the principle of private ownership of natural resources.

The Authority countered the efforts of the private utilities with studies dramatizing the weaknesses of rate regulation. Drawing heavily upon Power Authority reports, Bernard Ostrolenk categorized regulation's primary failure as the inability to "check on the bonafide cost" of operations "or on the real capital investment."[28]

The mechanisms through which utilities evaded the assessment of "true cost" are legion. One common method of adding unjustified costs to operating expenses was through service companies which overcharged the delivery of services to operating utilities. These companies were not utilities and consequently were outside of commission regulation. For instance, service charges to the Rochester Gas and Electric Company and to New York State Electric and Gas, both operating utilities of the Associated Gas and Electric Company, serve as illustrations of this method:

> Excessive and improper charges included a total of one million dollars paid by the utility [Rochester Gas and Electric] for the year of 1930 to service companies which legislative investigators estimated to be worth $250,000.00. Annual payments by the New York State Electric and Gas Corporation under arrangement with a service company were somewhat lower than the payments for 1930 by the Rochester Company but represented proportionately large inflation of its operating expenses.[29])

Furthermore, the excess profits accrued from service

company overcharges could not be credited with increasing the investment potential of the operating utilities, because they were garnered mainly by insiders in the holding companies. In its report on Utility Corporations, the Federal Trade Commission estimated that operating-utility investor dividends would be increased from one to three percent if service-company profits were eliminated.[30]

The watering of stock also was a method commonly used to inflate stock and to obscure the genuine value of the rate base. An example was provided by General Development Corporation in its acquisition of capital stock in the Oswego Canal Company, as well as in its investment in land and water rights. Floyd Carlisle and Roy K. Ferguson, the directors of General Development Corporation, approved write-ups for the book value of the capital stock from $222,500 to $2,022,500 and of the land and water rights from $628,527.80 to $2,428,527.87--amounting to a total write-up of $3,600,000 of the corporation's assets.[31] While the relationship between watered stock and inflated electrical rates is not direct, Ostrolenk argued that this practice inevitably would be reflected in rate increases:

> If securities are issued in excess of the actual value of underlying properties the company has thereby set in motion a force which irresistibly demands the earning of large dividends, with the accompanying tendency to increase the fixed capital accounts of the subsidiary companies for the purpose of earning higher rates from which these excessive dividend requirements may be met.[32]

Other devices to inflate the capital of operating

companies included financing-fee charges to subsidiaries and intercompany loans to subsidiaries for new construction. The former practice was not countered successfully by State regulation because, prior to 1932, the New York State Public Service Commission allowed the expense of security selling, fees to promoters, and soliciting sales, to be charged to capital instead of to securities.[33] And since the Public Service Commission was limited to granting the Authority the power to issue securities for capital additions, utilities could escape its jurisdiction by financing these additions through short-term loans. The Consolidated Gas Company of New York--now Consolidated Edison Company--was able to finance over $500 million of the cost of expanding its electric properties through short-term intercompany and bank loans.

The consequence of the utilities' use of this device to circumvent the jurisdiction of the Public Service Commission was that the significant "questions regarding the validity of the investment, whether it is economically justified in terms of plant requirements and unit cost of construction and the supercession of existing plant, remain within the discretion of management."[34] Clearly, this is a device to maitain corporate planning. As will be discussed below, the use of devices to escape PSC control increases in significance during the nuclear age because such a broad scope of management discretion provides the opportunity for the artificial manipulation of electrical demand.

The weaknesses of State regulation discussed here became widely known in the 1930's in New York State through the investigation of the Legislative Commission to Revise the Public Service Commission; through the early studies of PASNY; and, on a national level, through the Federal Trade Commission's hearings on utility corporations. While State regulation proved ineffective in maintaining checks on the "pyramiding" of holding companies, the utilities under attack opposed, with arguments for state's rights, attempts to establish more effective federal regulation. As the costs of the failed regulatory framework became apparent--due to the lack of rural electrification, high rates for customers of private utilities as opposed to customers of municipally-owned utilities, and the obstruction to industrial development due to the compounding of these problems--public outcry was raised for more effective public control of investor-owned utilties. As the Report of the Revision of the Public Service Commission concluded: "Unless effective regulation can be restored, there is bound to be a rapid shift of public opinion in favor of public ownership and operation."[35] The ineffectiveness of regulation in New York State, combined with the St. Lawrence power controversy, ushered in the public clamor for yardstick competition.

YARDSTICK COMPETITION

The theory underlying yardstick competition is that there is a need for a functional means of arriving at true costs of

production and of utility rate-base value. According to Richard Hellman, the advocates of government competition believe that the actual standards of commission regulation are below those that would be attained by competition. Hellman also argued that government competition advocates judged regulatory commissions as lacking in the ability to innovate new policies, and that commission regulation provided insufficient incentive for utilities to pioneer in promotional rates and rural electrification.[36] Public-power advocates went beyond the critique of regulation and beyond the desire for a yardstick for private utility rates to call for government entry into the electrical field as a means of reinforcing municipal home rule. Delos F. Wilcox argued in Public Ownership that "exclusive state regulation tends to the destruction of local responsibility, to paralysis of municipal government and to the strengthening and perpetuation of private policies as distinguished from public policies in public affairs."[37]

The Power Authority's entry into the electrical field showed elements of all of the aforementioned concerns, although it was unable to exercise a de facto yardstick of rates until the St. Lawrence project became operational in 1958. While the extent of PASNY's effectiveness as a de facto yardstick will be discussed later, it is clear that its yardstick powers were granted in response to the concentration of electric power under private control in New York State. In

1931, there were 82 private electric companies in the State, down from 246 in 1920. The Niagara Hudson-Consolidated Gas Systems controlled 27 of the companies in that total, and supplied almost 90% of the central-station generated power sold in the State.[38]

Evidence of the failure of State regulation to control this holding company from its inception in 1929 was abundant. The book values of the three interconnected companies making up Niagara Hudson--Northeastern Power Corporation, Mohawk Power Corporation, and the Buffalo Niagara and Eastern Power Corporation--was $147,486,603.95, but they were written up to $230,253,960.95 when the company was formed.[39] This 65% write-up placed pressure on the company to raise rates, borne disproportionately by domestic consumers, farmers and other small customers, including small industry. While its major industrial customer, the Aluminum Company of America, purchased one billion kilowatt hours at 4.7 mills, other industrial customers paid 2.2 cents per kilowatt hour. Rates for domestic consumers and farmers ranged between 6 and 8 cents per kilowatt hour.[40] Had the remaining ten percent of New York State's power been provided by a yardstick competitor there would have been a measure for the PSC to apply to Niagara Hudson's rates, but most of the power was generated and distributed by the Associated Gas System, a holding company of twelve private utilities.

The impact of these rates was a lack of electrical

service for small domestic consumers. Only 28% of the farms in New York State had central-station electricity in 1930.[41] The Public Service Commission noted the problems caused by the private-utility policy of making rural extensions only on the basis of profit:

> Lines are built where there is the most insistent demand for electricity and where the density of customers makes possible a low monthly minimum bill and few objections to the cost of installation. If the areas having the greatest density of customers are served first, it will be increasingly difficult to make electricity available to those in the more sparsely settled areas."[42]

The policy of the New York State private utilities was to place the cost burden for distribution lines upon the farmer, who would be forced to pay a minimum monthly bill of $24 per mile of line, as well as assuming the direct cost of erecting the line. Thus, rural electrification was so costly that in the United States, only about one farmer in ten had central-station electricity in 1935. As a consequence, in the United States' farm population of 30 million, "73 per cent must carry water from wells; 77 per cent get along with outdoor toilets; 93 per cent have neither bathtub nor showers; 76 percent depend upon kerosene or gasoline lamps ... and 48 per cent have to do laundry out of doors."[43]

The connection between the conservation movement and the movement for public power is perhaps most evident in the advocacy of rural electrification. The Giant Power Survey of Governor Gifford Pinchot in Pennsylvania was a landmark in demonstrating the feasibility of extending electrical service

to rural areas. An interesting aspect of the Giant Power Survey was its proposal to invigorate regulation without governmental ownership. In order to prevent a private-power monopoly of industrial development, Pinchot elaborated four principles of his plan, described in Confessions of the Power Trust.

> First, "the public must have a voice in the plans for the great electrical developments which are just ahead."
> Second, the public must share by rate reductions in the enormous economies which consolidation of companies is already producing, and which the Giant Power plan will produce in still larger measure.
> Third, rates must be based on moneys actually and prudently invested instead of on watered stock or what it would cost to reproduce the properties.
> Fourth, "the milking of the moderate and small users for the benefit of the few exceptional big users must stop."[44]

What Pinchot had in mind was the integration of all the power resources in the country into one system that would be guided first and foremost by the public interest. Rates would be lowered for small residential, commercial, and farm customers in order to increase consumption and raise the overall standard of living. The integration would result in economies of scale that would lower costs across the board. However, in exchange for allowing this integration to occur with private ownership, Pinchot expected that there would be strict government controls to ensure the protection of the public interest.

Note that with regard to rate valuation Pinchot rejected reproduction cost in favor of actual investment cost, which

would lower rate bases and would facilitate municipal takeover. But overall, the thrust of the plan was to make regulation more effective, despite the outcry of the private utilities that it was a plan for government ownership. The utility reaction reveals their desire to perpetuate a very limited state-government regulation in protection of their interests.

The chief engineer of the Giant Power Survey, Morris Llewelyn Cooke, applied to the Power Authority the principles of expanding electrical consumption by producing power at the lowest mass-production cost before he became Administrator of the Rural Electrification Administration in 1935. The Power Authority's study of the cost of distributing electricity, under Cooke's guidance, was a major contribution to yardstick competition as well as the model for the REA's work.

While the lack of population density provided a convenient explanation for the lack of farm electrification, the impact of high rates also was felt in urban areas, where 40% of homes still had no electricity in 1935.[45] Throughout the United States the average residential rate of 7 cents per kwh limited energy use to about 50 kwh per month in those residences with electricity.[46] In New York State, as residential and farm customers were called upon to pay anywhere between 4 and 9 cents per kwh for electrical service, a Power Authority functional-cost analysis of electrical distribution concluded that the total cost of generation and

distribution of electricity for residential customers amounted to 3.5 cents per kilowatt hour. Included in this three-and-one-half cent charge were all operational expenses; a 6% return on fixed capital; and a 5 1/2% allowance on capital for depreciation, insurance, and taxes.[47] Thus, the lack of an effective mechanism to enforce low electrical rates resulted in a dearth of rural electrification; in sharply restricted electricity use by low-income urban residents with electrical service; in impediments to the electrification of smaller industry; and in an overall depressed standard of living. The conditions were ripe for the employment of a mechanism to force these rates down and to provide municipalities with leverage against private utilities.

Examples of yardstick competition's effectiveness were abundant. Westmount, an autonomous municipality within the City of Montreal, had constructed a garbage-burning, steam-generating plant which began operation in 1906. From that year through 1935, the municipal utility lowered its rates from 10 cents per kwh to 2 1/2 cents. This compelled the private utility serving the city--Montreal Light, Heat and Power Company--to follow Westmount's reductions with rate decreases of its own. The private utility's rates had been 12.75 cents per kwh in 1908, but had dropped to three cents by 1933. In conjunction with the rate decreases, both utilities experienced greater earnings as the average residential

consumption of electricity increased to over 2400 kwh/year--six times the average in the United States.[48]

Cleveland's experience with municipal power provides more evidence of the effectiveness of yardstick competition. Cleveland Electric Illuminating Company was charging residential electric rates of 10 cents per kwh, which prompted the Ohio Regulatory Commission to order a rate reduction. When the private utility successfully appealed the order in the Ohio courts, city residents voted in 1911 to establish their own municipal steam-electric plant, which went into operation in 1914. The municipal rate was set at three cents per kwh, forcing the private utility to lower its rate to five cents.[49] In 1925 Cleveland voters supported by a 2-to-1 margin a $500,000.00 bond issue to extend its municipal plant.[50]

New York City's move toward municipal ownership indicates the impact of the threat posed by yardstick competition. When the Public Service Commission in 1933 ordered a 6% rate reduction for the Consolidated Gas System, the private utility responded with a petition before the Supreme Court of New York for review of the Commission's order. As the review dragged on into 1934, Mayor Fiorello La Guardia issued the recommendation that "it would be advisable for the City of New York to erect and operate their own municipal generating station."[51] A Power Authority study was requested, which indicated that a "direct comparison of the 2.31 cents per

kilowatt hour required by the proposed municipal plant and the average revenue for the individual companies shows percentage reductions ranging from 23 per cent to 55 per cent."[52] When Consolidated Gas filed in December 1934 for another rate increase, in response to the imposition of emergency relief taxes, LaGuardia pressed on with plans for a municipal plant to serve the needs of both the municipal and federal agencies in the city. As LaGuardia stood firm on the threat of a municipal plant, Consolidated Gas withdrew its December 1934 rate request of and reduced the costs to the Federal and city governments by 35 percent.[53] Clearly, LaGuardia's threat of yardstick competition through a municipal plant resulted in a significant decrease in electrical rates.

Power Authority Chairman Frank Walsh saw LaGuardia's threat to establish a municipal plant as part of a larger movement:

> Behind the present move... there is a coordination of federal, state, and city governments which is the result of a remarkable concatenation of political circumstance. If pressed with the support of public opinion this may prove to be a political revolution which will free government forever from the menace of monopolistic control of the necessities of modern living. Popular understanding of its significance is of the highest importance if the power interests are not to obtain a mere truce in which to reform their lines against the time when political reaction in one or more branches of government may relieve them of this pressure.[54]

Although the Power Authority's early support of yardstick

competition addressed the weaknesses of state-commission regulation of private utilities, its inability to begin construction of the St. Lawrence project prevented it from establishing its own public constituency in New York State. As mentioned above, PASNY found it necessary to build its own market for public-preference power through support of rural electrification, of municipal ownership of distribution lines, and of increased residential electrical demand. Here the Power Authority was in the same position as the Tennessee Valley Authority, the Booneville Power Administration, and the Reclamation Bureau in its power projects, in that its success would depend upon its ability to expand domestic energy consumption and economic growth. That the Power Authority was called upon to play an entrepeneurial role in developing low-cost hydroelectric power is an indication of how its founding was rooted in the thought of the Progressive Era, a topic to which we now turn.

PROGRESSIVISM AND THE POWER AUTHORITY

The most obvious connection between Progressivism and the movement for creation of the Power Authority is in the concept of efficiency. We have seen that public-power advocates in New York State fought for decades to make the principle of public control of water resources a reality. There are parallels here between Al Smith's advocacy of a State Power Authority and Senator George Norris's fight for public development of Muscle Schoals. Samuel Hays claimed with

regard to the conservation movement of the early twentieth century that its "essence was rational planning to promote efficient development and use of all natural resources."[55] Efficiency in this regard meant using resources wisely, not simply setting them aside for future exploitation.

Likewise, the public-power movement was concerned with more than counteracting the abuses of private-utility operations. It sought public control over native resources for power that could serve as the basis for economic development. Particularly since the privately owned utilities were slow in extending service to areas it felt were insufficiently profitable, the public-power movement was motivated to do so. Robert Firth notes that Nebraska public power--although not made a reality until the 1930's--had its origins as part of an effort to promote irrigation development in the 1880's. He further states:

> As time went by, most of the early promoters recognized that irrigation and power development had to be planned together to make their proposals economically feasible.[56]

Stuart Chase explained how the TVA as a planning agency developed out of its mandate to improve navigation in the Tennessee River. He maintained that, simply by stipulating improved navigation in the enabling legislation, the TVA was compelled to engage in planning with an ecological approach:

> Dependable navigation calls for flood control; flood control calls for dams and reservoirs; reservoirs must not fill with silt or their function vanishes... Silt can be prevented only by

> the control of erosion on agricultural lands and little waters. Erosion control calls for cover crops, both forest and grass, and scientific methods in tillage and crop rotation; cover crops call for cheap fertilizer, otherwise they will not take root on the exhausted soils; cheap fertilizer, especially phosphate, which is the major requirement in the Valley, can best be made with the help of electric furnaces and cheap power.[57]

The development of the planning objective as a central feature of the public-power movement was accelerated by the private utilities' activities to circumvent government controls by extending the scale of their operations. The early municipal franchise method of controlling utilities weakened when the private utilities expanded well beyond the franchise area. After State regulation was instituted, the formation of interstate holding companies left many aspects of operating expenses shielded from rate regulation. As mentioned elsewhere, the investor-owned utilities attempted to circumvent federal regulation in the late 1940's through their plans for power pooling. Clearly, the question of scale of operations and government controls is central.

Proponents of public power thus were aware that yardstick regulation was a process going well beyond regulation by commission. In fact, one writer saw the TVA's creation as more than the advent of government competition with the private-electric industry. Stuart Chase argued that Franklin Roosevelt had intended TVA to provide many yardsticks, "to measure power facilities, rural electrification, flood control, erosion control, progressive agriculture; yardsticks

hopefully to be applied in other regions and to make people more comfortable there."[58]

One of the PASNY trustees' most compelling arguments for the need for public planning was that the private electric companies had not acted to develop the waterpower resources of the State to their fullest capacity. They declared that the coordination of electric supply "has been under private auspices, with inflation of values as a basis for security issues forming the major objective. Although interconnection of generating plants, affecting at least 90 percent of the State's power supply, has been consummated, the advantages have reached consumers to a limited extent, if at all."[59]

But the Progressive quest for efficiency went beyond natural-resource management. Efficiency was the objective for the use of all factors of production, including labor (culminating in Taylorism) and capital. The preference for the public corporation as a financing mechanism must be recognized as a Progressive response to the financial excesses of the holding companies; this was particularly obvious after the collapse of the Insull empire and after the revelations from the Federal Trade Commission investigations.

A second aspect of Progressive thought that emerges in PASNY's early view of itself is faith in planning. The Fourth Annual Report of the Power Authority contains a statement of the Trustees' view that the Power Authority Act provided the nucleus for a State power plan. Here the

Trustees posited that public planning would assure

> 1. Widespread and abundant supply of low cost power available to all classes of consumers, not only in present load centers but also in rural and other outlying areas.
> 2. Maximum protection for the innocent investor against the losses to which he has been subjected by predatory financiers.[60])

Thus, Dewey Grantham's claim in reference to the theoretical underpinnings of the TVA--that efficiency was "identified with the conservation movement, with multipurpose river development, with government corporations, and with social planning"[61]--also could be applied to the Power Authority.

Power Authority Chairman Frank Walsh attempted to further PASNY's role as a public planner by becoming a member of the Water Resources Committee of the New York State Planning Board in 1934. Chairman Walsh consistently placed the St. Lawrence project at the center of the State's power plan, stating that with "this development once secured, the coordination of the State's abundant endowment of power resources into an economical system serving the people will inevitably follow."[62] In preparation for that development, the Power Authority conducted a survey of the means of coordination of power generation and transmission. This effort included analyses of the Department of the Interior 1921 superpower surveys; of the 1925 Giant Power Survey for Pennsylvania; and of the World Power Conference sponsored by the Ontario Hydro-Electric Power Commission. These studies illuminated the economic advantages inherent in economies of scale in the

electrical industry. With the interconnection of different electrical systems, with development of large-scale hydroelectric projects, and with construction of central-station generation plants, a planned development in the Northeast "would yield a saving of $429,000,000.00 per annum after payment of fixed charges on an estimated total investment of $1,294,564,000.00."[63]

By contrast, the Power Authority documented the private utilities' efforts in New York to develop a private interconnected system under the direction of the Niagara Hudson Power Company. As noted above, this holding company controlled 90 percent of the state's electrical supply through its 27 interconnected operating companies. In addition, with the completion of an intertie transmission line on the Hudson River, Consolidated Gas of New York became interconnected with Niagara Hudson.[64] The deleterious consequences of this private superpower system included the inflation of securities issues,the failure of the investor-owned utilities to pass along the economies of the interconnected system to all classes of ratepayers, and the delay of rural electrification.

Thus, the desire for public control of natural resources, a desire which served as the basis for the Power Authority's empowerment, also would became the foundation for water-power planning. The Progressive ideal of efficiency further invigorated the movement for planning which the PASNY trustees felt to be their mandate. As the Power Authority was

frustrated in implementing water-power planning, it moved to check the private utilities' efforts to establish superpower. Thus, the tendency to expand the scope of planning can be seen as PASNY moved from its mandate as the developer of St. Lawrence hydropower in the direction of becoming electric-system coordinator through a statewide public grid.

A corollary to the Progressive quest for efficiency was the belief that this ideal could best be achieved when politics was removed from administrative efforts. David Noble traces the lineage of this view from Frederick Winslow Taylor's work in developing management science, which would make it possible for industry to be run by engineers rather than businessmen. A group of disciples from the Taylor Society went beyond Taylor's emphasis on industrial efficiency by "creating the organization, 'The New Machine', in 1916 with the hope of ending irrationality in politics by replacing the professional politicians with scientific and objective bureaucrats."[65]

R. Jeffrey Lustig expands upon this aspect of the Prgressive ideal of efficiency in Corporate Liberalism. The Progressive's instrumentalist view of the State was based upon the ascendancy of corporate legitimacy over that of science. The consequence of that ascendancy was a "self-enclosed officialdom" of Progressives, and a corresponding emptying of authority from citizen action. In this sense, Lustig describes the Progressive social contract as one where, in the interests

of efficiency, citizenship is traded in for consumership. Lustig further explains that the Progressive argument for removing politics from administration was so fundamental that despite the differences over strategies for coping with business power, Progressives "were unified by the idea that the way to get things done was to remove them from the play of factions, insulate them from politicking, and assign them to the leadership of the competent."[66]

This last aspect of Progressivism is a theme that will be returned to below as a possible explanation for the Power Authority's failure to facilitate public planning in the 1970's. The ideal of a politically neutral administration of resource development raises the immediate question of whether this was how the leadership of the Power Authority envisioned their role as public planners. Here Samuel Hays indicates that the Progressive quest for efficiency emerged as a preference for planning by specialists. The advantage of this form of planning was that it could be conducted by technicians, since resource development was a technical matter. Hays elaborates on this point:

> Conflicts between competing resource users should not be dealt with through the normal processes of politics. Pressure group action, logrolling in Congress, or partisan debate could not guarantee rational and scientific decisions. Amid such jockeying for advantage with the resulting compromise, concern for efficiency would disappear. Conservationists envisaged, even though they did not realize their aims, a political system guided by the ideal of efficiency and dominated by the technicians who could best determine how to achieve it."[67]

The central question here with regard to the nature of the Power Authority's planning is the nature of the relationship between the planners and the "grass roots" in terms of participation in decision-making. The Power Authority supported the legislation to allow municipalities to own their electrical distribution lines, and in 1934 also called for legislation to establish power districts in New York State. However, since the latter recommendation did not make it to legislation, it is impossible to elaborate upon the role the Power Authority leadership of the 1930's envisioned for the grass roots, or upon the ways in which the relationship between PASNY and the power districts might have evolved over time.

PLANNING AND THE GRASS ROOTS

The Tennessee Valley Authority's relationship with the grassroots, celebrated by David Lilienthal, provides the most-analyzed example of an attempt by a public corporation to establish democratic planning. Lilienthal maintains that TVA involved the public in its planning efforts while following the general direction set by its legislative mandate. Democratic planning for Lilienthal is "the conscious selection by the people of successive plans,"[68] and the role of the public corporation is to facilitate democratic planning by encouraging local participation in formulating and implementing these plans.

Lilienthal's analysis of TVA's approach to the grass

roots has undergone trenchant criticism. Philip Selznick concludes in TVA and the Grass Roots that the grass-roots theory had become a protective ideology obscuring the formal cooptation of dominant local interests into the policy-making structure of the organization.[69] Hence, local participation was a supporting element of TVA, not a transformative one. TVA, here, was responding to pressure from two sources: (1) the hostile political environment composed of its opponents in Congress and in local agencies whose functions could be subsumed under TVA's operations; and (2) the organizational demands for "unity of command and continuity of policy."[70] The latter concern indicates that TVA's inability to establish a meaningful role for the grass roots stems as much from organizational imperatives as from its institutional environment. The consequences for grass-roots participation are significant:

> What, therefore, can be the role of the coopted local association or committee? It cannot become an effective part of the major policy-determining structure of the agency. In practice only a limited sphere of decision is permitted, involving some adoption of general directives to local conditions, and within that circumscribed sphere the responsible (usually paid) officials of the agency will play an effective part."[71]

The expert officials within TVA would then be involved in the formulation of plans, while the public would be involved in choices between pre-defined alternatives.

In a later work, Selznick places even greater emphasis on the impact of organizational imperatives upon citizen participation. Since an institution is to be understood as "a

responsive adaptive organism" which arises out of social needs and pressures, it becomes both a reflection of and a prop for social values.[72] Thus, even within the organization there is little room for members to influence policy because the "maintenance of social values depends on the autonomy of elites"[72]; which autonomy might be circumscribed by the participation of non-elites in decision-making.

In his early writing on government corporations, Harold Seidman downplays organizational autonomy as an explanation of government corporation behavior. In fact, Seidman suggests that organizational autonomy results not only in freedom from outside control, but also in the real possibility of isolation from policy-makers at the national level.[74] He goes on to note that the "weight given to the theory of the autonomous corporation has never been justified by practice in the United States. The 'authentic' government corporation is largely a fictional creation."[75]

When he does express concern over the problem of the public corporation's political accountability, the concern is cast in terms of the difficulty of policy coordination. Coincidentally, Seidman's extensive list of government controls over public corporation operations makes no mention of the role of organized citizens.[76] Seidman later expressed concern over the increase in public functions conducted by quasi-public bodies such as public corporations:

> Atomization of political power is not the antidote. The notion that our central political institutions can be

> reformed by emasculating them persists, even though experience with special districts, independent public authorities, and, most recently, nongovernment community action agencies, hardly supports this view. Significant changes will not be achieved if we start from the premise that it is impossible to build into established state and local government systems those institutions and procedures necessary to assure effective citizen participation, involvement and responsiveness to the poor and politically powerless.[77]

Thus, while advocating a revitalization of "established State and local government systems", Seidman seems to suggest that an active citizenry is a necessary ingredient in the accountability of government, including the public corporation.

Although Selznick emphasizes the necessity for decision-making elites autonomy from the lower-ranking members of the organization, he acknowledges that the public, as a clientele, represents a force which must be recognized. He argues that, given the threat to its organizational stability, TVA responded through formal cooptation of its potential competitors by delegating its agricultural program "to an organized administrative constituency."[78] Consequently, the TVA agricultural program was altered according to the wishes of the established constituencies of the Departments of Agriculture and Interior,[79] which left TVA with the constituent support and with political capital to concentrate on its power program. The land grant colleges and the Farm Bureau provided much of the support here.

The significant aspect of TVA's relationship with the grass roots in both its agricultural and power programs is

that the cooptation process is geared towards the encouragement of administrative participation--rather than towards decision-making participation--of those citizens likely to be most affected. Once these individuals are organized, there is "thus envisioned a mushrooming of citizens organizations at the end point of administration, permitting participation at the grass roots in the application of a general policy to varying local conditions."[80] While Selznick considers the erosion of citizen participation into administrative involvement to be "part of the organizational problem of democracy"[81], he fails to extend his analysis to indicate the dynamism of private-sector influence in TVA's institutional evolution. In other words, Selznick neglects to place the development of the grass-roots approach within the context of TVA's genesis as a yardstick competitor with private utilities.

The capability for systemwide coordination of policy also was described as an explanation for the unlikelihood of greater citizen control over public corporations. Ira Sharkansky has argued that, in addition to contributing to the profusion of agencies, citizen demands "seem likely to increase the number of actors in policy making and service delivery--and thus add to overall incoherence--even while they remedy particular difficulties."[82] However, Sharkansky argues that the growing use of public corporations is more a reflection of "the nature of the economy and the

culture of the population" than of "the form of government or the nature of politics."[83] The prospects for democratic planning then would seem to depend upon the capacity for organized citizens' groups to keep public agencies from becoming captives of the private sector.

Public corporation autonomy makes planning less coherent and accountability to public objectives less likely. As Galbraith argues, its organizational imperatives move it toward corporate planning. Ann Marie Walsh's analysis suggests also that public corporations act as adjuncts to private corporations, indicating that they play a role in corporatist planning as well.

Walsh has further argued that the problem of capture is a very real one for the public corporation. She claims that public corporations proliferate because they serve the needs of the private sector:

> The most rapidly growing sectors of government enterprise are designed to reduce the risks and to strengthen the profits of nongovernmental entrepeneurs in scores of businesses ... While individual authorities sometimes compete with some specific businesses, they aid many more.[84]

The effect of private-sector capture of public-corporation operations is demonstrated in the breakdown of the public controls over their planning. At the heart of the difficulties experienced by government in holding public corporations accountable to public needs is the reality that they "tend to be co-opted by the banking and business interests with whom they work."[85] Walsh concludes:

> The public authority planning process is shaped by financial dependency on private markets, a dependence ironically created by the concept of authority autonomy. Authority planning tends not to consider the impact of corporate policies and projects on the national or local economy [public and private] or on the environment--physical, social, and political--within which the corporation acts or even on other public agencies.[86]

While Walsh discusses several criteria for effective and accountable public corporations, she makes no mention of the role of citizen input as an ongoing requirement.[87] This is particularly confusing because her analysis goes a long way toward exploding the myth of the "apolitical" public corporation. While Walsh calls for comprehensive government planning to coordinate various public agencies' efforts, it appears unlikely that comprehensive planning can be made compatible with grass-roots influence unless greater attention is given to the means of developing publics. Such notions as the opening of public access to information and providing flexibility for authorities to adjust to changing popular demands are necessary conditions toward that end; but they are not sufficient.

In their review of TVA and the Grass Roots, Rexford Tugwell and E.C. Banfield caution advocates of democratic planning to be aware of the grassroots theory as an ideology. They argue that, in effect, the retreat of TVA before the pressure of vested local interests amounted to a trade of democracy for a power program.[88] According to Tugwell, the establishment of public power was less important to Franklin D. Roosevelt than were TVA's regional planning approach and

the potential of the public-authority form, which combined the powers to discipline exploiters and to implement organic planning.

The grass-roots theory of TVA fell short of making this a reality because it: 1) ignores class differences at the local level; 2) ignores the interests of groups outside the region; and 3) thus ignores the perspective of the social organism.[89] Furthermore, the practice of formal cooptation by the TVA undermined democratic planning because in the application of general policies to local conditions, the agency did not share decision-making power. In other words, formal cooptation represented the replacement of substantive participation (the exercise of decision-making power) with mere administrative involvement, which would lead to an eventual deterioration of participation. Additionally, TVA's grassroots planning failed to take into account the entire system of interests within which it operated.

Paul Conkin's treatment of the roots of the TVA provides further evidence of the impact of formal cooptation. In TVA's power program, the apolitical image was manifest in efforts by the Authority to resist the creation of public power districts;[90] to oppose the popular election of local power board members;[91] and to insulate those appointed power boards from elected officials.[92] Victor Hobday suggests that TVA prefers power boards because they will more readily accept the principles and policies of the power program staff.

Consequently:

> A typical power board has little contact with the city governing body. Its policies are closely supervised by TVA, and citizens' participation is non-existent.[93]

The end result of the TVA preference for apolitical power boards is that they are "not very responsive to democratic pressures."[94] Again, its planning is narrow in scope, aimed principally at achieving the objectives of the (public) corporation.

After elaborating upon Selznick's analysis of the failure of the grass-roots approach of TVA, Tugwell and Banfield conclude with their view of the requirements for democratic planning. One basic requirement is the recognition of grass-roots planning as an ideology.[95] Tugwell notes from his own experience in the Agricultural Adjustment Administration that the established farm oranizations would not tolerate a farm program calling for basic restructuring of the farm economy. Further, established farm organizations "would not permit any thoroughgoing plans to be put into effect."[96] Because of the intransigence of local vested interests, these authors concluded that "if most farm communities are to have democratic administration they will have to import it from Washington."[97] In general terms, before the decentralization of government power can be successfully achieved, it is necessary to first centralize it to prevent its capture by local special-interest groups. It is essential that national planning objectives not be

overridden in the interests of protecting parochial power structures.[98]

The same argument is advanced by Grant McConnell in Private Power and American Democracy with regard to a concept related to the notion of a public--the constituency. McConnell notes that there is a political orthodoxy which celebrates small community-based political units, based upon assumptions such as the greater tendency that people's interests will be identical; that the small community is natural; and that there is greater potential for rational discussion and less need for compulsion.[99] But this orthodoxy does not take into account the distribution of power within those units. For instance, the grass-roots ideology of TVA claimed that local interests were engaged in planning. However, as Selznick and Tugwell have noted, those organizations engaged in decision-making were not representative of the poor farmers who comprised a large percentage of the Valley population. McConnell further argues that there is a general tendency toward narrowing of constituencies:

> ... although the actual membership of a group or association may grow, its category of eligibles--that is, its potential membership--will narrow. This is a consequence of the imperatives of organization, which has an easier task of internal government to the degree that dissidents are excluded and homogeneity is achieved.[100]

What this means for democratic planning is that there must not be an a priori delegation of authority to smaller local constituencies. Rather, concerns and objectives are to be voiced by constituencies to planning bodies through

publics, which act as catalysts of communication between various constituencies in the formulation of national policies. Through this process, the objectives of the planning process are kept from being narrowed to particular economic or small-scale constituencies.

Decentralized-production proponents argue for the institutionalization of the grass roots as the key to transforming the scale of decision-making. Indeed, Murray Bookchin argues in The Modern Crisis that grass-roots decision-making processes become ends in themselves:

> They create an ambience of popular politics, of participatory citizenship, of active involvement in historic issues. They provide that vital function that self-governance should always fulfill: the process of educating the citizen into citizenship and deepening one's sense of selfhood through self-governance.[101]

While this vision of reempowerment of the citizenry emphasizes decentralization of political decision-making to the grass roots, and eventually confederation of those local bodies, it begs the question of how to deal with existing "grass-roots" bodies in league with national institutions of centralized authority. Here Tugwell and Banfield's argument provides the dynamic for reempowerment while also sketching the relationship between the grass roots and national government.

This point returns us to another of Tugwell and Banfield's requirements for democratic planning: the need for stronger administrators devoted to the national interest. This is expressed in Tugwell's claim that the TVA, as a national

agency created in response to the failures of state governments, was expected to define and defend its own conception of the national interest rather than to accommodate itself to local interests.[102] Finally, according to Tugwell and Banfield, the most fundamental requirement for democratic planning is the involvement of publics. The authors conclude that "the survival of democracy depends upon our finding ways of differentiating the mass into publics which are capable of exercising a stable and responsible control of government."[103] Differentiation here implies a transformation of the mass into genuine publics, in contrast to the grass-roots approach, which simply encourages administrative involvement of the mass without transforming it. In this sense, it is the educative function performed by citizen participation which is the key to making planning democratic. Various democratic theorists from Rousseau through Thomas Jefferson, John Stuart Mill, and Carole Pateman have based their arguments for participation upon its ability to transform human personality and to cultivate citizen efficacy.

DEMOCRATIC PLANNING THROUGH PUBLICS

According to Karl Mannheim, publics in liberal mass societies have evolved organically through a stage of disintegration into "the artificially organized public of the future."[104] It is where publics can be organized that the potential for a democratically planned society can be found.

Mannheim acknowledges that the organized public is a forced solution to the problem of the disintegrated mass society, but argues that this is preferable to the threat posed by the unorganized growth of democratic society which "culminates in dictatorship."[105] The key concern here is, which institutions, movements, and interests dominate the organization of publics.

The development of democratic planning involves the development of social techniques which foster individuality:

> Planning in this sense means planning for freedom; mastering those spheres of social progress on which the smooth working of society depends, but at the same time making no attempt to regulate the fields which offer the greatest opportunities for creative evolution and individuality.[106]

From Mannheim's perspective it is important that the process of formation of the personality be consciously directed to encourage the growth of individuality and, correspondingly, to narrow the scope for functional rationality. In our terms, the problem is that in the absence of planning by true publics, the field for planning is open to direction by institutions which can appeal to unorganized masses through "emotional, irrational symbols... to influence them in the desired direction"[107]--that is, the direction sought by planning institutions, without regard for the autonomy and efficacy of the individuals influenced.

The key to forming publics, then, is the splitting up of mass society into smaller groups of appropriate scale where individuality and initiative can function:

> In these small groups in which everyone feels that a great deal depends upon his actions, and learns to act upon his own responsibility instead of losing himself in the anonymity of the mass, social patterns grow up in which individuality can almost certainly develop.[108]

Thus, there are both positive and negative functions of democratic planning through publics. The positive functions relate to the cultivation of individuality and the democratic personality, while the negative function is demonstrated in Mannheim's concern for checking the threat posed by mass society.

C. Wright Mills argues that the decline of publics and the rise of mass society are closely related to the increasing scale and centralization of governing institutions, such as the military, corporations, and the Executive branch. He further states:

> It is not only that the institutions of power have become large scale and inaccessibly centralized; they have at the same time become less political and more administrative.[109]

Consequently, the rise of mass society has brought with it a loss of individual influence over voluntary associations and a corresponding increase of individual dependence. This means that the necessary autonomy of the public from the influence of instituted authority is lacking, resulting in individuals' loss of capacity to differentiate themselves from mass society. In contrast to publics, the mass "has no autonomy from institutions; on the contrary, agents of authorized institutions interpenetrate this mass, reducing any autonomy it may have in the formation of opinion by

discussion."[110] In this sense, one important question for Mills is whether the public can say no to institutionalized authority.

Linking Mills' notion of publics with the ideal of democratic planning, we find again that publics perform the negative function of providing resistance to the domination of institutions of power which attempt to infiltrate and capture mass support. In the context of Selznick's analysis of the Tennessee Valley Authority, the autonomous public would serve as a check on the imposition of policies upon communities by the upper levels of TVA administration. Further, the genuine public is also the vehicle "of realizing opinion in action...",[111] through cultivating the formulation of public opinion by free discussion. Thus, by facilitating communication, publics encourage the articulation of issues and objectives; which in turn serves to impose both accountability and an awareness of the public mind upon governing institutions. A second question for Mills, then, is whether publics can offer up substantive alternatives to the plans and planning coming from governing institutions. Here, the evidence of citizen participation in electric-system planning suggests that they can.

Publics, by definition, are concerned with issues and with the embodiment of the values of the community into more stable political forms. In this sense they are conscious of themselves as political agents, also a distinguishing

characteristic separating publics from other voluntary organizations. John Dewey's definition of a public demonstrates this aspect clearly:

> The characteristic of the public as a state springs from the fact that all modes of associated behavior may have extensive and enduring consequences which involve others beyond those directly engaged in them. When these consequences are in turn realized in thought and sentiment, recognition of them reacts to remake the conditions out of which they arose. Consequences have to be taken care of, looked out for. This supervision and regulation cannot be effected by the primary groupings themselves. For the essence of the consequences which call a public into being is the fact that they expand beyond those directly engaged in producing them. Consequently special agencies and measures must be formed if they are to be attended to; or else some existing group must take on new functions.[112]

The activity of publics is thus self-conscious activity, where the individuals involved are aware of the consequences of their activity and move to sustain these consequences in accordance with their shared values. As we will observe later, the community organizations involved in energy policy in New York State thus intervened to maintain public access to planning processes and siting procedures for new generation and transmission projects.

Finally, with regard to the development of democratic personality, Mills argues along with Mannheim that publics make their contribution by narrowing the scope of activity prone to functional rationality.[113] In this regard, the mission of a genuine public is to expand the space for reflection upon and discussion of issues, necessary in order for the individual to maintain the capacity to "reason about

the great structures--rational and irrational--of which their milieux are subordinate parts."[114] Mills further cautions that unless publics do exist, "there are no vehicles for reasoned opinion, no instruments for the rational exertion of public will."[115] In other words: without publics, even the capacity of individuals in advanced industrial societies to engage in reasoned decision-making is endangered.

Further discussion of the requirements and potential for the development of publics will be presented in the concluding chapter, once the outlines of the impact of corporate planning have emerged.

THE OBSTRUCTION OF COUNTERVAILING POWER

As mentioned above, the publics the Power Authority devoted itself to cultivating in its first decade included farmers who had been unable to get electricity to their farms; residential consumers who were paying exorbitant rates; and municipalities paying high rates for service from investor-owned utilities. PASNY's major contributions during this period in rural electrification and municipal ownership were confined to its studies, because the effort to develop St. Lawrence hydropower was obstructed by investor-owned utilities and their allies in private industry. A brief history of their obstructive activities is revealing not only for its impact upon public power, but for its illustration of the nature of the response of the private utilities.

The earliest activities to obstruct the public

development of St. Lawrence hydropower actually began before the Power Authority was created. In 1930, Floyd Carlisle stated, before the Commission on Revision of the Public Service Law, the position of Niagara Hudson Power Company with regard to public development:

> There is no legal ownership in the Federal or State Governments of the right to use water for power purposes, such rights being largely in our companies. A treaty between the United States and the Dominion of Canada is probably necessary to permit a dam to be built across the river. The State of New York probably owns the land under water from the American banks to the center of the river or International Line, but this ownership gives no water power rights ... The company desires to see the water-power developed as quickly as possible and put to use. While it would itself undertake such development upon fair and generous terms, yet it will consider any and all other plans, particularly that of having the development made by a State-owned corporation, the power to be marketed by our operating companies.[116]

Once the Power Authority was created and had been given the power to regulate rates by contract, Niagara Hudson--the leading private electric utility in the region--moved to establish extensive interconnections so that it could be the exclusive distributor of St. Lawrence power. Further, Niagara Hudson maintained, in its negotiations with the Power Authority, the position that the contract provision would not mean a departure from the regulatory procedure already in existence under the Public Service Commission. At the same time, private-power interests lobbied through the New York State Chamber of Commerce to hold the Great Lakes-St. Lawrence Deep Waterway Treaty in abeyance until an extensive economic

study of the benefits of the Treaty could be performed.[117] The Power Authority Trustees attributed the treaty's defeat to private power interests, stating that, through three months of Congressional debate, while "the power issue was scrupulously avoided by the opponents, the backbone of the adverse vote was the Atlantic seaboard, dominated by the United Corporation group of holding companies, including those controlling the power supply of the State of New York."[118]

There is a lack of direct evidence of the impact of private-utility lobbying efforts upon the Treaty. However, Senator Robert LaFollette, Jr. of the Wisconsin Progressive Party, claimed that the utilities had not exerted their influence directly; but rather had employed "chambers of commerce, newspapers, public-school textbooks, ministers of the Gospel, and other innocent and respectable agencies to spread their propaganda."[119] PASNY Chairman Frank Walsh, in a letter to President Roosevelt, also attributed the defeat of the treaty to the activities and influence of the private utilities.[120] On the other hand, William Willoughby noted that "there is little either in the hearings of the Foreign Relations subcommittee or in the debates of the Senate to indicate that the power interests made any special effort to influence the members of the Senate to oppose the treaty."[121]

The lack of definitive evidence of the impact of utility lobbying does not mean that the private utilities were not

active in obstructing the Power Authority's development as a yardstick competitor and countervailing power. Indeed, had the Deep Waterway Treaty been ratified in 1934 and the St. Lawrence project initiated, the Power Authority still would have been unable to act successfully as a yardstick without having supplemental legislation passed in New York State to provide it with the means to distribute the power to municipalities and to rural electric systems. This was the reality because Niagara Hudson had established interconnections which gave it control over 90% of the grid in the State. It appears that the development of "superpower" in New York State, while not bringing the advantages to consumers of the economies of scale,[122] did provide leverage Niagara Hudson was prepared to use in its negotiations with the Power Authority. In addition, the private utilities were opposing actively the efforts of Governor Lehman in 1934 to gain legislative approval of a law ensuring that the hydropower from the St. Lawrence would be distributed at the lowest possible rates.[123]

THE POWER AUTHORITY RESPONSE

The Power Authority responded to these private-utility activities by recommending adoption by the Legislature of two measures:

> Amendment to the law to authorize the Power Authority to construct, own and operate transmission lines to connect with the various municipalities which, under the municipal utility bill, may vote to operate their own electric systems;

> Enactment of legislation authorizing the creation of power districts, so that cities, villages and rural areas may combine to assure all homes in the State the full advantages of public competition.[124]

These measures were designed to maintain the Power Authority's capacity to act as a yardstick competitor, and would provide as well the basis for its effort to establish a State plan for the coordinated development of its power resources. The Power Authority also asked for a survey to investigate the coordination of all public and private power-generating facilities under the control of a public agency. Secondly, it called for consideration of "a New York State transmission 'Grid' or State-controlled 'giant' power program."[125] Third, the Trustees called for the extension of their mandate to include the full development of the hydropower resource of the Niagara River, a measure essential to counter the extension of the private diversion of water power.[126] The Trustees concluded that the "solution of the power problem appears to rest inevitably in State action, combined with the local option of public distribution as the effective agent for the control of retail rates."[127] At this time PASNY was actively engaged in expanding its base of support by aiding in the municipalization of power.

After the initial defeat of the Great Lakes-St. Lawrence Deep Waterway Treaty, President Franklin Roosevelt pressed to renew negotiations with Canada in 1934 in order to facilitate St. Lawrence development as one of four regional yardstick

projects. In response, a number of opposition groups became mobilized to defeat the attempt, including railroad interests, the Mississippi Valley Association, and the New York State Waterways Association. In addition, Willoughby noted that the "public utilities came out boldly in opposition to the President's entire public power program. And the Chamber of Commerce of New York State, the Merchant's Association of New York City, and other organized groups began devoting increasingly large amounts of money to the defeat of any renewed attempt to obtain ratification of a Seaway Treaty."[128]

In the following year Power Authority Chairman Frank Walsh, working together with Basil Manly of the Federal Power Commission, undertook at Roosevelt's request a study of the possibility of combining St. Lawrence development with that of Niagara Falls. In a report issued on December 20, 1935 they recommended establishment of a special joint commission to draw up a new treaty "providing for the orderly and planned development of the entire Great Lakes-St. Lawrence basin."[129] This recommendation to move in the direction of comprehensive regional planning was not instituted in the form of a new treaty; but it indicates the perspective of the Power Authority Chairman and of the Roosevelt administration as to the type of planning in which the Power Authority was to be engaged. Indeed, in its Fifth Annual Report, the Authority recommended "that the two developments, on the St. Lawrence

and Niagara Rivers, be planned together, and that the State of New York extend its power policy, embodied in the Power Authority Act, to embrace the undeveloped power available on the Niagara River."[130] The Power Authority maintained the proposal for its development of the Niagara Falls project in each succeeding annual report, throughout the entire period in which it was prevented from developing the St. Lawrence project.

However, despite Franklin Roosevelt's continued support for the project, the proponents of the treaty were unable to gain ratification through the end of the 1930's. As a consequence, the Authority changed its position on the negotiations, calling for the separation of the St. Lawrence power project from the navigation aspects of the Deep Waterway Treaty--a position supported by Governor Lehman. A new accord was reached in May 1941 between the Army Corps of Engineers and the Power Authority concerning the cost allocation for project construction. In addition, the Authority planned to gain authorization to begin construction through executive action by the President, as part of his wartime powers.

The Authority argued that the shortage of electricity at Massena had reduced aluminum production. It noted that northern New York had been designated as a power shortage area by the War Production Board, and it forecast that the region would be faced with a serious shortage of oil and coal by 1944. However, the plan for executive action to authorize the

construction for the project was stalled by the Department of War's reluctance to invest scarce resources in a construction project which could not make a contribution to the war effort until 1945. Again, the construction of the St. Lawrence project was postponed.

In the process of building the case for executive action, PASNY repeatedly emphasized that the private utilities were planning the construction of steam plants. Noting the strain that steam plants placed upon short fossil-fuel supplies and the waste of failing to develop these enormous hydroelectric resources, the Authority focused more and more upon the potential contribution it could make to the war effort if it were allowed to begin the project. For instance, in their Twelfth Annual Report, PASNY trustees noted the recommendation of the St. Lawrence Survey of the Department of Commerce for the immediate development of the St. Lawrence. The summary report stated:

> There is already a shortage of electric power in northern and western New York for defense industries, and this shortage is becoming more severe as the defense program develops to its full intensity. Many industries in western New York have been denied additional electric power for defense production.[131]

With regard to New York State's own power needs, the Authority reiterated throughout the war years that the failure to develop St. Lawrence power would be felt in terms of industrial expansion in other areas of the country where low-cost water power was being developed. Reports by the

Department of Commerce indicated that the availabliity of local power supply was a significant factor in both the location of population[132] and of new war plants[133] during the period of conversion to the war economy. Since the shifts in industry and population were expected to affect the economies of regions in the post-war period, the Power Authority argued that the State should press forward in clearing the obstacles to the development of St. Lawrence hydropower. Further, PASNY Trustees recommended "a development on the Niagara River itself, owned and operated as a State enterprise because the Niagara Falls Power Company's private power development on the American side of the Niagara River has ceased to be an aid to the further industrial growth of the State."[134]

James Bonbright's letter to the chairman of the Federal Power Commission in 1947, Nelson Lee Smith, indicates the prevailing attitude toward public power nationally. Bonbright argued that with the current mood of Congress being so anti-public-ownership, the only way to promote river basin development would be to turn power over to private companies for transmission and distribution. His response to this policy follows:

> This, in my opinion, would be nothing short of a national tragedy.[135]

One of the major impediments to St. Lawrence development was the changed attitude of the governor's office under Thomas E. Dewey. He opposed the surviving New Deal measures of

Franklin Roosevelt and championed the cause of private-power interests. While Dewey wanted the St. Lawrence development to proceed, he desired that it not be under public-power auspices. Public-power advocates throughout the late 1940's fought to keep the public nature of the project alive.

Beyond the missed opportunity represented by the failure of the State to take advantage of its hydropower resources, the Authority warned against the growing dependence upon imported Canadian power. By 1949 this problem was so great that Governor Dewey referred to it in his 1949 Annual Message to the Legislature:

> We are presently required to obtain from the Province of Ontario over 2,000,000,000 kilowatt hours a year to maintain existing production. Meanwhile, Ontario, itself, is in such dire need for this power that its people have been required to resort to brownouts and night operations to avoid surpassing normal peak loads.[136]

Despite the efforts of the Trustees, PASNY's authorization to provide de facto yardstick competition continued to be frustrated until 1954. In the intervening years it issued fewer reports, performed fewer studies, recommended less legislation and received fewer appropriations;[137] a decline of activity that reached into the end of the governorship of Thomas Dewey. As a force in cutting electrical rates it was left increasingly short in resources, in inspirational leadership, and in institutional devices. While it continued to fight for a treaty with Canada to open up the St. Lawrence project--shifting rationales for

the necessity of its development of the power--the Power Authority lost the institutional momentum in favor of the encouragement of publics. By 1949 it managed to gain State approval to issue revenue bonds as a financing mechanism without the approval of the St. Lawrence project, and this newly added power served as the basis for a resurgence of PASNY activity.

While still under Dewey's governorship, the Authority finally was granted authorization to begin the construction of the St. Lawrence project. Before this was initiated, Dewey transformed the institutional leadership of PASNY by appointing Robert Moses as Chairman and reorganizing the Authority. The aggressiveness of Moses as a builder, combined with the more favorable climate of opinion resulting from the revelations of the Dixon-Yates scandal with TVA, provided the opportunity for the Power Authority finally to play its intended role as a producer of low-cost electrical power to small consumers. But in 1955, when contracts for St. Lawrence power were being negotiated, the Authority leadership appeared to be more concerned with producing sufficient revenue to pay off its bonds than with cultivating publics. Having become dependent upon the bond market, PASNY as a public corporation was in the same position of risk as a private corporation if it failed to attract investment capital: institutional decline and eventual extinction. Consequently, its planning process developed a much closer resemblance to corporate planning.

Chapter One - ENDNOTES

[1] Richard Hellman, Government Competition in the Electrical Industry, New York: Praeger, 1972, p. 76. By 1895, eight companies claimed the right for water diversions of the Upper Niagara River, with none contributing any compensation to the State.

[2] New York State, Public Papers of Governor Charles E. Hughes (1907), "Annual Message", January 2, 1907, pp. 37-38. At the 1908 Conference of Governors, Hughes stated that undeveloped water powers "should be preserved and held for the benefit of all the People and should not be surrendered to private interests. It would be difficult to exaggerate the advantages which may ultimately accrue from these great resources of power if the common right is duly safeguarded." Proceedings, Conference of Governors on Conservation, 1908, p. 323.

[3] Laws of New York for 1907, Chapter 569.

[4] Richard Harold Longshore, The Power Authority of the State of New York: Accountability and Public Policy. Unpublished Ph.D. Dissertation, Syracuse University, 1981, pp. I5-I6.

[5] New York State, Governor Alfred E. Smith, "Governor's Message to the Legislature on January 3, 1923", New York Legislative Documents, No. 3, 1923, pp. 7-31.

[6] New York State, Governor Alfred E. Smith, "Annual Message to the Legislature on January 2, 1924", New York State Legislative Documents No. 3, 1923, pp. 11-15.

[7] Robert Caro, The Power Broker, New York: Random House, 1975, p. 616.

[8] Public Papers of Alfred E. Smith, Albany: J.B. Lyon Co., 1937, p. 11.

[9] Samuel Insull, Public Utilities in Modern Life, William Keily, ed., Chicago: Samuel Insull, 1924, pp. 26-27.

[10] See, Forrest McDonald, Insull, Chicago: University of Chicago Press, 1962.

[11] Gabriel Kolko, The Triumph of Conservatism, New York: Free Press of Glencoe, 1963, p. 3.

[12] Kolko, p. 3.

[13] William E. Mosher and Finla Crawford, Public Utility

Regulation, New York: Harper, 1933, p.551; see also Merle Fainsod, Lincoln Gordon, and Joseph C. Palamountain, Jr., Government and the American Economy, 3rd Edition, New York: W.W. Norton, 1959, p. 317, for a similar view.

[14] Leland Olds, "Big Business Moves In", America's Energy, Robert Engler ed., New York: Pantheon, 1980, p. 314.

[15] Susan J. Tolchin and Martin Tolchin, Dismantling America, Boston: Houghton Mifflin, 1983, pp. 5-12.

[16] Ibid., pp. 237-241.

[17] Ibid., p. 12.

[18] Longshore, p. I6.

[19] Caro, p. 403.

[20] The American Super-Power Company also submitted an application.

[21] Judson King, "When Al Smith 'Ducked An Issue'", 1936, Leland Olds Collection, Container 7.

[22] Public Papers of Franklin D. Roosevelt, 1931, Albany, J.B. Lyon Co., p. 81.

[23] McDonald, p. 250. These six companies at the time sold about 25% of the nation's electricity.

[24] State of New York, Public Papers of Governor Franklin D. Roosevelt, Albany: J.B. Lyon, 1937, p. 81.

[25] Bernard Ostrolenk, Electricity: For Use or for Profit?, New York: Harper and Brothers, 1936, pp. 7-8. Also, in a confidential memorandum to the Secretary of State in February 17, 1936, PASNY submitted its claims that private-power interests on both sides of the St. Lawrence were the "crux of the opposition to the project." (pp. 11-12 confidential memorandum), Leland Olds, Box 57.

[26] Power Authority of the State of New York, Ninth Annual Report, 1939, p. 9.

[27] Caro, pp. 402-404.

[28] Ostrolenk, p. 35.

[29] Ostrolenk, p. 38.

[30] Utility Corporations--Report of Federal Trade

Commission, No. 72, pp. 659-660.

[31] Final Report of the Legislative Committee to Investigate Public Utilities, New York State Legislative Document No. 78, pp. 39-40.

[32] Ostrolenk, p. 60.

[33] Ostrolenk, p. 62.

[34] Ostrolenk, p. 52. Also, 5th Annual Report, PASNY.

[35] Report on Revision of Public Service Commission, p. 245.

[36] Richard Hellman, Government Competition in the Electric Utility Industry, New York: Praeger, 1972, p. 7.

[37] Delos F. Wilcox, "The Terminable Permit, Public Ownership, January 1926, Vol. VIII, No. 1, p. 7. Wilcox looked to the public-power movement as a means of preserving home rule for municipalities by making the municipal franchise a meaningful power. With the eclipse of the franchise due to state regulation, municipalities lost the ability to use their native power resources as the basis for economic development.

[38] PASNY, Fourth Annual Report, p. 40. Also, Ostrolenk, p. 112. The figure in the Leland Olds papers was 89.4% for Niagara Hudson Consolidated Gas and 7.8% for Associated Gas & Electric, Box 57. The actual breakdown was: 92% of waterpower controlled by Niagara Hudson, and 90% of steam power by Consolidated Gas and Niagara Hudson.

[39] Ostrolenk, p. 64.

[40] Ostrolenk, p. 82.

[41] New York State Public Service Commission, Annual Report--1930, p. 50.

[42] Ibid., p. 184.

[43] Ostrolenk, p. 128.

[44] Carl D. Thompson, Confessions of the Power Trust, p. 615.

[45] Ostrolenk, p. 3.

[46] Federal Power Commission--Rate Series No. 3, pp. VII and 23.

[47] PASNY, Report on Cost of Distribution of Electricity to the President of the United States, November 1934. Appendix 8 to Fourth Annual Report, p. 6.

[48] PASNY, Fourth Annual Report, Appendix 6. pp. 90-103.

[49] "Successful Public Ownership", Address by Senator R.B. Howell of Nebraska, January 24, 1925, reprinted in Public Ownership, October-November 1925. Vol. VII, No. 10., p. 145.

[50] Public Ownership, October-November, 1925, Vol. VII, Nov. 10, p. 160.

[51] Ostrolenk, p. 79.

[52] PASNY, Fifth Annual Report, p. 129.

[53] Ostrolenk, pp. 79-80.

[54] Frank P. Walsh, "The Power Crisis", The Nation, January 16, 1935, p. 66.

[55] Samuel P. Hays, Conservation and the Gospel of Efficiency, Cambridge, Mass.: Harvard University Press, 1959, p. 2.

[56] Robert Firth, Public Power in Nebraska, Lincoln: University of Nebraska Press, 1962, p. 4.

[57] Stuart Chase, "TVA: The New Deal's Best Asset", in America's Energy, pp. 73-74.

[58] Ibid., p. 72.

[59] PASNY, Fourth Annual Report, p. 21. See also pp. 22-24, 47-50, 72-80.

[60] PASNY, Fourth Annual Report, p. 21.

[61] Erwin C. Hargrove and Paul Conkin, TVA: Fifty Years of Grass-Roots Bureaucracy, Chicago: University of Illinois Press, 1983, p. 322.

[62] PASNY, Fourth Annual Report, p. 35.

[63] Ibid., p. 35.

[64] Ibid., p. 40.

[65] David W. Noble, The Progressive Mind, Chicago: Rand McNally, 1970, p. 38.

[66] R. Jeffrey Lustig, Corporate Liberalism, Berkeley: University of California Press, 1982, p. 152. Also, see Chapter Eight.

[67] Hays, p. 31.

[68] David Lilienthal, TVA: Democracy on the March, New York: Harper and Row, 1953, p. 191.

[69] Philip Selznick, TVA and the Grass Roots, Berkeley: University of California Press, 1970, p. 262. "Wherever the execution of the over-all program reaches out into a local community, it is considered desirable to organize those citizens most closely affected into an association which will participate in the administration of the program. There is thus envisioned a mushrooming of citizen's organizations at the end point of administration, permitting participation at the grass-roots in the application of a general policy to varying local conditions."

[70] Selznick, p. 221.

[71] Selznick, p. 221.

[72] Philip Selznick, Leadership in Administration: A Sociological Interpretation, Evanston, Ill.: Row, Peterson, 1957, pp. 5, 21.

[73] Ibid., p. 8.

[74] Harold Seidman, "The Theory of the Autonomous Government Corporation: A Critical Appraisal", Public Administration Review. Volume II, No. 2, Spring 1952, p. 94. See also Harold Seidman, Politics, Position and Power: the Dynamics of Federal Organization. New York: Oxford University Press, 1970, p. 234.

[75] Seidman, "The Theory of the Autonomous Government Corporation", p. 95.

[76] Seidman, "The Government Corporation: Organization and Controls", p. 185. The list is comprised of: "(1) law, charter, or other document establishing the public enterprise; (2) relationships to existing departments and ministries; (3) extent and nature of ministerial control; (4) method of appointing and removing the governing board and executive officials; (5) budget; (6) audit; (7) annual reports; (8) relationship to the legislative; and (9) ownership."

[77] Harold Seidman, Politics, Position and Power: The Dynamics of Federal Organization. New York: Oxford University Press, 1970, p. 273.

[78] TVA and the Grass Roots, p. 262. Selznick posed this question as a measure of the extent to which a voluntary association had fallen to formal cooptation. "Is approach to the association by outside elements channelled through officials of the coopting agency?", p. 264.

[79] Ibid., p. 262.

[80] Ibid., p. 218.

[81] Ibid., p. 265.

[82] Ira Sharkansky, Wither the State?, N.J.: Chatham House, 1979, pp. 152-153.

[83] Ibid., p. 20.

[84] Ann Marie Walsh, The Public's Business, Cambridge: MIT Press, 1978, p. 332.

[85] Ibid.

[86] Ibid., p. 335.

[87] These are in The Public's Business, pp. 343-346.

[88] R.G. Tugwell and E.C. Banfield, "Grass Roots Democracy--Myth or Reality?" Public Administration Review, Volume X, Winter 1950, No. 1, p. 52.

[89] Ibid., p. 54.

[90] Erwin Hargrove and Paul Conkin, eds., TVA: Fifty Years of Grass-Roots Bureaucracy, Chicago: University of Illinois Press, 1983, pp. 27-28.

[91] Ibid., p. 41.

[92] Ibid., pp. 32-33. See also Victor Hobday, Sparks at the Grass Roots, Knoxville: University of Tennessee Press, 1969, pp. 22-23, for a description of the Nashville City Council Legislative Committee's decision to deny veto power over the Power Board to the Mayor and the Board of Public Works, at the suggestion of TVA counsel.

[93] Hobday, p. 40.

[94] Hobday, p. 237.

[95] Tugwell and Banfield, p. 54.

[96] Tugwell and Banfield, p. 54.

[97] Tugwell and Banfield, p. 54.

[98] This point is also found in Sidney Plotkin, Keep Out: The Struggle for Land Use Control, Berkeley: University of California Press, 1987, pp. 244-246.

[99] Grant McConnell, Private Power and American Democracy, New York: Random House, 1966, pp. 93-101.

[100] Ibid., pp. 342-343.

[101] Murray Bookchin, The Modern Crisis, Philadelphia: New Society Publishers, 1986, p. 147.

[102] Tugwell and Banfield, p. 49. For a lucid argument of the need for planning to come from the national level, see also Sidney Plotkin, Keep Out: The Struggle for Land Use Control. Berkeley: University of California Press, 1987, pp. 244-246.

[103] Tugwell and Banfield, p. 55.

[104] Karl Mannheim, Man and Society in an Age of Reconstruction, New York: Harcourt Brace, p. 97.

[105] Ibid., p. 106.

[106] Ibid, p. 264.

[107] Ibid., p. 98. Thus, the choice is not between laissez faire and planning, but rather concerns who the planners will be:

> "Only those who feel that the present state of society is 'natural' because they were born into it will oppose true planning, thereby completely overlooking the fact that this alleged naturalness is the chance product of spasmodic interference with the course of social events and the development of the individual--an interference which usually does more harm than good because it is not consciously applied." p. 268.

[108] Ibid., p. 265. John Dewey also emphasized the integrative character of involvement in political life. See The Public and its Problems, New York: Henry Holt & Co., 1927, p. 148. See Murray Bookchin, The Modern Crisis, for his argument concerning how personality development is dependent upon the development of community. pp. 28, 36.

[109] C. Wright Mills, Power, Politics and People, New York: Oxford University Press, 1963, p. 360.

[110] Ibid., p. 355.

[111] Ibid., p. 356.

[112] Dewey, p. 27.

[113] Mills, p. 37. Functional rationality increases as the scale, and bureaucratic organization, of institutions increase. When individuals within such institutions become focused upon the particular, specialized activity dictated them by the institution, they may lose the capacity to reason about the ends of the institutions as a whole.

[114] Ibid., pp. 237-238.

[115] Ibid., p. 38.

[116] PASNY, Fourth Annual Report, p. 18.

[117] At the time, Power Authority Chairman Frank P. Walsh referred to the Aluminum Company of America's claim for rights to 20,000 cubic feet/second of St. Lawrence flow as a "bold gratuity" and a "joke" that would cost the New York State public-power system $100 million over the period of amortization. Wisconsin Superior Telegram, August 22, 1934, "Walsh, Famous for Years, Never Ran for Office".

[118] PASNY, Fourth Annual Report, p. 17.

[119] LaFollette, Congressional Record, 73rd Cong., 2nd session, p. 1670.

[120] William Willoughby, The St. Lawrence Waterway, Madison: University of Wisconsin Press, 1961), p. 158.

[121] Ibid., p. 159.

[122] PASNY, Fourth Annual Report, pp. 41, 43.

[123] New York Times, February 24, 1934, p. 16.

[124] PASNY, Fourth Annual Report, p. 19.

[125] Ibid., p. 48.

[126] Ibid., p. 50.

[127] Ibid.

[128] Willoughby, p. 163.

[129] Ibid., p. 166.

[130] PASNY, Fifth Annual Report, p. 39.

[131] PASNY, Twelfth Annual Report, 1942, p. 37.

[132] U.S. Department of Commerce, "Regional Shifts in Population, Production and Markets, 1939-1943", Bureau of Foreign and Domestic Commerce.

[133] U.S. Department of Commerce, "Survey of Current Business, September 1943".

[134] PASNY, Thirteenth Annual Report, 1944, p. 47.

[135] Letter from James Bonbright to Nelson Lee Smith, June 6, 1947, Leland Olds Papers. Bonbright's contributions to the public-power movement, and to PASNY in particular, were considerable. He was a Power Authority Trustee during the early years; he had assisted in the Giant Power Survey, been one of the dissenters on the Report of Commission on Revision of the Public Service Commissions Law, and had pioneered in the effort to establish fair valuation practices and rate regulation. It was from this last perspective that PASNY's potential as a yardstick was so important for Bonbright.

[136] State of New York, Public Papers of Thomas E. Dewey, 1949, p. 20. At the Power Authority's urging, the New York State Assembly and Senate unanimously endorsed the Graves-Daniels Resolution to put the State on record in favor of prompt action to develop St. Lawrence power.

[137] In its Ninth Annual Report, 1939, Authority Trustees asserted that the reduction of its annual appropriation from $85,000 to $50,000 had "necessitated the dismissal of more than half of the staff and required a postponement of plans to investigate the present commercial and industrial rates in the various sections of the State." (p. 9.)

II. THE RISE OF CORPORATE PLANNING

With the obstacles cleared from the development of the St. Lawrence project, the Power Authority moved from being a research-based yardstick of the investor-owned utilities to being a wholesale energy supplier. In the process it was involved in the tasks of handling payrolls; performing engineering feats, such as at Niagara Falls; and dealing with the conflicting objectives of producing electric power, improving navigation in the St. Lawrence River, and preserving the scenic beauty of the region. Like investor-owned utilities, it needed to consider the market for its electricity, and because of its unique character, plan for the distribution of its energy to the preference customers mandated in its enabling legislation.

One of the Power Authority's major emerging concerns in the 1950's regarding energy planning was the movement on the part of the investor-owned utilities toward research and development in nuclear power. Since the federal government had begun actively to encourage commercial development of atomic energy with the AEC's Industrial Participation Program in 1952, the private utilities had engaged in research consortia with firms engaged in nuclear energy development. For instance, Niagara Mohawk Power Company formed a consortium with Dow Chemical to investigate the development of nuclear

power plants in 1953. Later, the seven major investor-owned utilities in New York State formed the Empire State Atomic Development Associates (ESADA) to pool research and development activities. This posed a threat to the Power Authority because its enabling legislation did not provide for steam electric-generating plants, and because the connection between the investor-owned utilities in ESADA raised the possibility of further collaboration against the Authority.

As suggested in Chapter One, the debate over the causes for PASNY's abandonment of its public-power mission involves both Walsh's analysis of the impact of financial market pressures and Galbraith's argument concerning the rise of the technostructure. Here I will attempt to fuse those arguments by providing a look inside corporate planning. The requirements of corporate planning provide the best explanation for the rejection of public input in policymaking, and also for the distortions of public policy in electrical-system planning.

Corporate planning in the electrical-utility industry in the U.S. is geared toward reaching several objectives. First, system planning is designed to promote demand, through the construction of generating plants and transmission lines which use excessive amounts of energy, and through declining block rate pricing structures. This enables the utilities to plan for system growth without the risks inherent in a market system where supply might exceed demand and result in lower

prices. Second, system planning must acknowledge the constraints of the money markets, because the utilities are competing with other corporations for capital. Consequently, any citizen input which could raise the cost of capital is perceived as a threat and therefore is minimized. Third--and perhaps most importantly--alternative objectives and modes of planning are deliberately frustrated in order to eliminate the threat to utility autonomy in policymaking. The achievement of these objectives facilitates the overall goal of making profit for the utilities.

Since public corporations are operating within the same environment as investor-owned utilities and need to respond to the same pressures, they react similarly to those pressures when there is not effective public involvement in policymaking. Thus, this analysis reveals the probable impact of the movement toward privatization of public administration, as more public services are delivered through agencies financed by private money markets.

THE MOVE TO NUCLEAR POWER

Investor-owned utilities became involved in the development of nuclear power due to a combination of federal government incentives, potentially low fuel costs, and the opportunity to engage in rate-base padding, due to the expense of construction of nuclear plants.

First, the federal incentives include the Atomic Energy Act of 1954, which removed the government monopoly on all

phases of nuclear power development--thus allowing private industry to retain patents for development of nuclear power plants. The Price-Anderson Act, passed in 1957, provided an insurance policy for the nuclear industry with an absolute limit on liability for an accident of $560 million from a "fund that the A.E.C. and private insurers would establish."[1]

In addition, the Atomic Energy Commission provided various other forms of assistance to encourage private utilities and manufacturers to enter the nuclear field. Fritz F. Heimann of General Electric noted the range of A.E.C. help to private industry:

> The forms of assistance varied from research assistance and waivers of lease charges on nuclear materials to support of construction costs.... AEC also encouraged private development by declassifying large amounts of power reactor technology before the Geneva conference on peaceful uses of atomic energy in 1955.[2]

Investor-owned utilities (IOU's) had further inducement to invest in nuclear power plants because reactor manufacturers such as General Electric and Westinghouse instituted turnkey contracts in the early 1960's in an effort to corner the reactor market. These contracts would provide for the finished plant to be constructed, completely ready to go into operation. Besides the turnkey contracts, reactor manufacturers competed with each other by upscaling continuously the generating capacity of plants in order to sell them to utilities on the basis of economies of scale.

Nuclear power also appeared beneficial because it used a small amount of fuel compared to coal and oil and did not produce the same visible pollutants as those fossil fuels.

For all of these reasons--which will be discussed in greater detail below--many electric utilities began in the late 1950's to make the move into the nuclear industry when they needed to add to their generating capacity. This movement by the private sector prompted a response by the Power Authority to expand into nuclear generation as well. However, before examining the consequences of this movement, it is necessary to consider how the Power Authority implemented its mandate as a champion of public power in the 1950's.

THE POWER AUTHORITY AS YARDSTICK COMPETITOR

The movement toward corporate planning by the Power Authority becomes evident as early as the negotiations for the contracts for St. Lawrence hydropower.

As noted above, PASNY's original mission, from a yardstick-competition perspective, was to provide an alternative to Public Service Commission regulation. In its first two decades it performed this objective through engineering studies on power costs and case studies of competitive utilities. Of course, the centerpiece of the Authority's yardstick power was to be regulation by contract, where its wholesale power rates would set the standard for retail rates.

However, in its initial contracts for St. Lawrence hydropower, the Power Authority surrendered its regulatory objectives to move into a non-competitive relationship with the investor-owned utilities. This reconciliation with the investor-owned utilities occurred under the leadership of Robert Moses and John Burton, both Trustee appointees of Thomas Dewey, who opposed both PASNY construction of its own transmission lines as well as the preference for municipalities. In fact, the contracts for St. Lawrence power were so biased toward large industrial consumers of electricity that Governor Averell Harriman, under urging from public power advocates, was compelled to investigate. One example of this pressure, and of the importance of the public-preference element of PASNY's mission, is found in this letter from Morris L. Cooke to Governor Harriman:

> When the Power Authority Act was re-written and Frank Walsh was made Chairman, all our thoughts were directed toward using this great cheap source of power for the benefit of little people, whether on the farms or in the towns. Plan after plan was made to carry the current to the furthermost regions of the State in our efforts to accomplish this purpose.
>
> ...through our experience with REA, we have come to know that these same small users can increase normal use of current beyond belief if - and it is a big if in many localities - they can secure the electricity at reasonable rates, which means below rates now generally prevailing in New York State.
>
> This great step forward your block of cheap St. Lawrence power can accomplish if the current is rightly used. Taking drudgery off the backs of people, as only electricity can do, is, like freedom itself, a noble objective. You have the authority. Make the Power Authority and its

competent Chairman do some more thinking.[3]

Because the dramatic shift in Power Authority policy has been attributed solely to Robert Moses' personality and management style, it is essential to examine the evidence of other institutional or systemic forces at work in this transition. The evidence suggests that PASNY's concern for institutional maintenance proved to be a significant underlying factor in the development of its own brand of corporate planning, with its consequent parting of the ways with the public-power movement.

The Power Authority took one step away from the fulfillment of its mandated preference for public power when its Trustees determined that there would be a 150-mile radius for its marketing area, in order to cut the cost of transmission. The rationale behind this determination was that high transmission costs would make the yardstick hydropower less effective. However, with the large base-load capacity at the St. Lawrence plant, PASNY needed high-load-factor customers, practically nonexistent within that marketing area.

The one existing industrial customer, ALCOA, negotiated with the Power Authority to continue to receive hydroelectric power from the St. Lawrence because it had had its own plant for 50 years. The new PASNY hydroelectric plant would submerge under water the facilities of ALCOA's subsidiary, the St. Lawrence River Power Company. ALCOA also was one of the

largest employers in the region.

Because of the long ties between ALCOA and the economy of Northern New York, there was a great deal of support from civic groups in the region for the ALCOA contract. However, the opposition to the ALCOA contract focused on the point that PASNY was conducting its allocation on a piecemeal basis, without consideration for a statewide or even a regional plan.[4]

The Giant Power Plan of Governor Pinchot in Pennsylvania already had been in the public domain for thirty years at this time, and the TVA had been in existence for more than twenty. That the Power Authority Trustees appointed by Governor Dewey could relinquish so much of the St. Lawrence hydropower without implementing a regional development plan was anathema to the conservationists who had guided PASNY into existence and through its early years. Besides the objections of such early Power Authority Trustees as Morris L. Cooke and James Bonbright that PASNY was not fulfilling the mission of providing low-cost power to farm and residential consumers, criticism came from public-power advocates who were concerned that the Power Authority allocation plans would make it difficult to carry out its other yardstick responsibiliites.

The length of the contract--originally proposed for 48 years--also drew considerable criticism, particularly from cooperative electric systems and municipal electric systems in New York State. The latter groups wanted "allocation for

their use of 375,000 kilowatts even though their current consumption was only 5,300 kilowatts."[5]

Former Power Authority Trustee James C. Bonbright and Leland Olds, Assistant to the First Chairman of the Authority, both testified unsuccessfully in opposition to the Alcoa contract. Governor Averell Harriman proposed informally to the Power Authority that it modify its contract with ALCOA by shortening the term of the contract, to give the State the right to reexamine the agreement after 25 years regarding rights to half of the power being supplied to ALCOA.

When these modifications were agreed to by the Power Authority and ALCOA, Harriman approved the contract and emphasized the economic importance of ALCOA in the region. But with the conclusion of the contract, ALCOA was to receive 174,000 kilowatts of firm power, plus 65,000 kw of interruptible power--still leaving the Power Authority with over 550,000 kilowatts of firm power for sale.

One option advocated by the municipally-owned electric systems, rural cooperatives, and others in the public-power movement was for PASNY to develop its own distribution system, which could eventually become the backbone of a public, statewide grid. On the national level, public-power advocates such as Leland Olds were calling for this same type of public transmission grid as the central element for a publicly-owned system. These advocates opposed the Authority's circumscribed marketing area and maintained that if a PASNY distribution

system were not possible, then at least the St. Lawrence power should be fed into the statewide power pool.[6]

This position drew great criticism from the investor-owned utilities, who were successful in establishing the policy that they should be responsible for the local distribution of St. Lawrence power through their transmission lines. The Power Authority Trustees did decide to construct the main transmission lines that they would need to deliver the bulk power from the Robert Moses Dam to those distribution lines of the IOU's. And since many of the domestic and rural customers served by the Power Authority were within the service territory of Niagara Mohawk, 115,000 kw of firm power was contracted for sale to that private utility. This drew opposition, again, from the municipalities, who argued that PASNY should market the power directly to them, and who were further concerned that the Authority had locked itself into long-term contracts with a private utility and with the aluminum industry--contracts which would not allow it to meet the future needs of public-preference customers.

Once the precedent had been set by the contract with ALCOA, the Authority determined to attract other high-load industrial customers into its predetermined marketing area. It was joined by the New York State Department of Commerce, as well as by chambers of commerce and other business associations in an attempt to stimulate interest in locating an industrial plant near the St. Lawrence hydroelectric

plant.[7] Two corporations--Reynolds Metals Company and Allied Chemical and Dye Corporation--expressed interest. Problematically, Allied Chemical dropped out of the negotiations early, and Reynolds' plans were for a reduction plant which would have a high load factor but was also not a heavy employer.

Throughout the latter half of 1955 and on into 1956, the Authority proceeded on contract negotiations with Reynolds. These were concluded in August without any definite plans by Reynolds for the construction of a fabricating plant which could employ large numbers of workers. The Authority consequently pressed forward with its contract proposal without a clear indication that the allocation of 200,000 kw of firm power to Reynolds would result in a significant employment benefit to the people of Northern New York.

The public hearing on the proposed Reynolds contract revealed a uniformity of support from various North Country civic and business associations as well as from municipal bodies. Such groups as the Grange, American Legion posts, local Chambers of Commerce, and labor unions expressed support for the contract as a means of encouraging North Country industrial development. This indicates that the trustees' decision to delimit the marketing area had resulted in the creation of a regional industrial development constituency, which has been utilized by the Authority in various other political conflicts ever since.[8]

The arguments of opponents of the Reynolds contract not only hit hard upon the lack of guarantees of employment, but also questioned whether the determination by the Trustees of the 150-mile marketing area was justified. Adolph A. Berle, Jr.--former Brain-Truster and co-author of The Modern Corporation and Private Property--argued in the second hearing that the St. Lawrence power should be absorbed into the State's power pool, thus extending the cost benefit of public power to all of the domestic and rural consumers in the State.[9] The spokesman for the Municipal Electric Utilities Association noted that the preference clause for rural and domestic customers had been reaffirmed through seven amendments to the Power Authority Act since 1931, which meant that the approval of the Reynolds contract would make the allocation to the aluminum industry a violation of the Act. In addition, the same individual charged that there was no sound engineering or economic basis for the Power Authority's 50-mile marketing limit.[10]

Lehman, Berle, and some of the other opponents were interested in having PASNY advance the public-power movement with its hydropower-allocation contracts. Berle wanted to have St. Lawrence power absorbed into the State's power pool and distributed across the State. In this way PASNY power could continue to serve as a yardstick while benefiting all of the State's preference customers, thus avoiding the regional conflict that would trouble the Power Authority in the early

1980's. However, this approach appeared to be at odds with PASNY's management, who were more concerned with institutional maintenance. Robert Moses' reply to the critics of the St. Lawrence contracts was repeatedly to ask, "How would we pay our bondholders?"[11]

Although these arguments called for the Power Authority to serve as an extension of the public-power movement, actually it began politicking for the contract, encouraging local chambers of commerce to petition in favor of it, and drumming up support from newspaper editors. Despite these activities, Governor Harriman was not in favor of the contract until General Motors entered the negotiations, due to its interest in building a fabrication plant near the Reynolds reduction plant. With the prospect of increased employment in the region as a result of General Motors' entering the scene, Governor Harriman approved the contract.

One example of PASNY's parting of the ways with the Progressive ideal of efficiency regards the allocation to the aluminum companies. Certainly, the decision to provide low-cost power to the aluminum industry did not take into account end uses of that energy, for the voracious consumption of electricity for aluminum production is wasteful compared with other substitutes; e.g., steel and glass for containers, and lumber for construction material.[12]

Roscoe Martin concludes that the market allocation arrived at by the Power Authority followed "sound business

principles",[13] even though it did not advance the public-power movement. Quite clearly, the concern of the Trustees was to secure the market for the St. Larwence hydropower so that it would be able to pay off its bonds, and consequently would be in a position to attract further investment for future projects. This is in keeping with Ann Marie Walsh's analysis concerning the influence of the bond market in public corporation activities.

The fact that the Authority was going to be committed to its Alcoa contracts for 43 years--23 longer than the term of its bonds--indictates that it was responding to the planning logic described by Galbraith. In other words, the Authority was fashioning its contracts in such a way as to ensure that its rates would not be set by a competitive market, but would in effect transcend the market. The contracts negotiated between PASNY and its industrial and investor-owned utility customers were beneficial from an institutional-maintenance perspective not only for the Power Authority, but for those customers as well. The industrial customers were able to get an energy-cost guarantee that would allow them greater latitude in determining profitabiity in energy-intensive production. And the investor-owned utilities not only received access to inexpensive power, but the trustees' policy to use existing transmission lines and distribution facilities also removed the threat of competition from a public-power system. In sum, the marketing allocation program for St.

Lawrence hydropower reinforced the energy policymaking process already in existence, which had as its foundation private profit.

Given the fact that the Power Authority--even with the addition of the Niagara Project--began to turn away prospective municipal customers in the 1960's, it is apparent that institutional maintenance had become a higher priority for the Authority. The Authority's pursuit of this priority was aided by the reinterpretation of its mandate during Averell Harriman's governorship, when the low-cost public power would be used as a tool to lure industry to New York State rather than to serve rural and domestic consumers. Further moves in the direction of corporate planning can be seen with the Authority's role in the Niagara Redevelopment Project, which will be discussed below.

PASNY AND THE NIAGARA REDEVELOPMENT ACT

The issue concerning hydro development at Niagara Falls revolved around the question of who would get the authorization to develop this low-cost energy. Jacob Javits of New York offered a plan for PASNY to have 100% ownership of a Niagara Falls plant and to pass the savings on to customers through the IOU's. Public-power advocates such as Herbert Lehman and Hubert Humphrey called for publicly owned utilities to have 100% preference for hydro allocation. The IOU's wanted private ownership--or, if there were public ownership, no preference for public utilities. The issue was settled

with the passage of the Niagara Redevelopment Act, which declared that 50% of the power would have to go to public-preference customers.

However, as with the St. Lawrence contracts, PASNY reserved only a fraction of the Niagara Project's energy for public-preference customers--actually only 325 megawatts out of the 2017 mw capacity. Further damage was done to the dreams of the public-power advocates as the contracts between PASNY and the IOU's for transmission of Niagara Falls power restricted the power solely to existing municipal systems, leaving out entirely the possibility that other municipalities would take over their own electric distribution systems by using Niagara Falls power. This stance of accomodation between PASNY and the IOU's in resisting further municipalization of electrical service is the clearest example of PASNY's abandonment of its public-preference mandate for the purpose of institutional maintenance.

The most striking aspect of the reports of the Power Authority after its reorganization in 1954 is the emphasis on engineering improvements and the correspondent lack of information concerning the activities of investor-owned utilities from a yardstick perspective. Even during the legislative fight in Congress over responsibility for water-power development at Niagara Falls resulting from the International Niagara River Treaty of 1950, the Authority did not issue a detailed statement of the comparative costs and

benefits of public versus private development. The statement of comparative costs for the St. Lawrence project received great attention in its Fourth Annual Report. While five private utilities were pressuring the 83rd Congress to pass legislation allowing them to proceed with the Niagara Falls development, PASNY lobbied successfully for the Case Bill, which allowed the Federal Power Commission to make the determination.[14] PASNY's statement of justification for authorization to develop the Niagara River project demonstrates how its public-preference mandate had declined as an institutional objective:

> Our engineers have shown that after both St. Lawrence and Niagara River have been completed, an additional 3,800,000 kilowatts of power will be required in New York State by 1965.
> The present supply of power in New York State is not sufficient to promote growth in industrial production and power use without interruption and curtailment.[15]

This same justification was used in 1957 when the Authority was seeking approval for its Niagara license after the collapse of the Niagara Mohawks' Schoellkopf plant:

> Basic industries in the Niagara area, employing much of the local labor, will be forced to leave the frontier unless low cost power can be restored within a reasonable time.[16]

Beyond the emphasis on industrial development, the Authority appeared to have relinquished any claim to being part of the public-power movement:

> We have no interest in ideological or political differences and theories which apply more to other parts of the United States than to New York State.

> All we ask is the right to do at Niagara, what we are doing on the St. Lawrence--develop the power the State owns through the established State agency and by the use of private capital.[17]

This last statement indicates the extent to which the reorganization of PASNY by Governor Dewey in 1953 resulted in a reconciliation with the IOU's. Primarily through the appointments of Robert Moses and John Burton, previous PASNY boards of trustees' policies--to build their own transmission lines, to prefer municipalities, and to compete with the IOU's--were relinquished by the new Board.[18] A significant movement in the direction of accommodation with the private utilities was already occurring by 1957.

In addition, with the Niagara project the Power Authority ran into its first staunch opposition by community groups. Townships along the Niagara Frontier were critical of the engineering plans for the reservoirs and open waterways to the powerplant. The Power Authority's 1958 Annual Report took on an unusual tone in characterizing the public hearings held on these issues as "delaying tactics" and "obstructive tactics" that "dragged along endlessly through the fall and early winter of 1957-1958."[19] In the following year's Annual Report, it is obvious that the Authority had not taken a tolerant position toward public criticism of its operations. One particular passage demonstrates both the frustration and arrogance of the Power Authority under Robert Moses' leadership regarding public criticism:

> This integrated, continuous Niagara power, park and arterial program has been beset by senseless, expensive, and aggravating litigation, delays and red tape. We are, of course, fully aware of the disruptions, inconveniences and in a very few instances actual hardships attendant on major construction of this kind. We try hard to anticipate these contingencies, guard against and mitigate them, but they can't be wholly eliminated and we can't make all local vested interests and individuals happy including those who have their hands out for favors.[20]

Moses used two time-honored techniques to combat this public opposition, which are described in The Power Broker. The first of these is whipsawing, where one government agency is promised some beneficial action or service if compliance is gained from a recalcitrant agency. For instance, during the hearings on the engineering plans for the Niagara Frontier, the Town of Niagara and City of Niagara Falls were persuaded to withdraw as intervenors in the Federal Power Commission licensing process, leaving the Town of Lewiston and County of Niagara in the position where they appeared to be unreasonably obstructing the project. At the same time the Authority was making the case to the Niagara Frontier region of the potential economic benefit of the project and the costs of the "obstructive tactics" of the remaining intervenors to the region.

The second tactic used is the fait accompli. When the Tuscarora Indians brought suit against PASNY for its plans to acquire and inundate 15,000 acre-feet of the Tuscarora Reservation as part of a storage reservoir, the Authority constructed the project so that it could use the Tuscarora

land without waiting for the decision of the U.S. Supreme Court. It was then noted by the Authority that access to the Tuscarora land would increase the firm power capacity of the project by 100,000 kilowatts "to the great advantage of industrial and family consumers."[21] As will be discussed in greater detail in later chapters, these tactics to combat community opposition were used often by the Authority--e.g., during the hearings on the Cementon nuclear plant, and with the Massena-Marcy 765 kv transmission line project--representing a policy at odds with the theory that it was responsive to grass-roots concerns.

As with the St. Lawrence power allocation, the Authority determined to allocate much more power for industry than was provided by statute. Niagara Mohawk Power Company's industrial customers were to be allocated 445,000 kilowatts because of the loss of their energy supply when the Schoellkopf plant collapsed in 1956. But the Authority decided to make available an additional 200,000 kilowatts for industrial expansion, which was met by immediate requests for twice that amount of electricity--causing the Authority to take the position that as "in the case of St. Lawrence, it is obvious that there will not be enough power to meet long-range requirements."[22]

PASNY load forecasting thus became tied into the forecasting methodologies of its industrial customers and of the investor-owned utilities to which it sold electricity. As

we shall see in Chapters Four and Five, the Power Authority was by no means an innovator in load forecasting and did not encourage innovation by its municipal customers. In this sense the Power Authority after Moses' chairmanship was very slow in responding to the need for assessment of how much electricity was actually required in the State. While the Power Authority's original mandate came out of a conservationist orientation, the flexibility we have witnessed in interpreting its mandate regarding the public-preference issue was not as evident with respect to the development of a limits-to-growth ethic in the Authority.

It should be noted that at this time, with the Niagara project nearly complete and the St. Lawrence project already in operation, the Authority had no statutory mandate to engage in expansion of its generating capacity. Indeed, if PASNY were to proceed within the parameters of public-corporation operations as they were originally contemplated in British public-administration theory, it would already have served its purpose when construction was complete and operating revenues set aside for bond payment and maintenance. This would ultimately result in those revenues' being returned to lower rates or to serve as tax revenue. But the Moses-led Authority began to search for new projects to become engaged in, which provided a rationale for not returning the revenue from power sales toward lowering of rates or to the State Treasury.

The Power Authority's implementation of the Niagara

Redevelopment Act demonstrates that it was headed in the direction of corporate planning by arranging for the allocation of power to industry where there was a more stable market, helping to insure the long-term survival of the Authority itself. Also, the Power Authority's treatment of municipal-government intervenors and the Tuscarora Indians denotes an attitude toward public input that closely resembles that of a private corporation.

Further, upon completion of the Niagara project, the activities of PASNY to expand its mandate through the development of nuclear power shows that it was interested in institutional survival and was not in conformance with early public-administration theory on the public corporation.

PASNY AND PUBLIC POWER

Beginning in 1961 and continuing through the decade, the Power Authority repeatedly frustrated municipalities contemplating public ownership of their electric utilities. Examples of this include the Authority's dealings with Ellicottville in 1962, the Town of Ogden in 1967, and the community of Gananda in 1972.[23]

In addition, the Power Authority began to use the tactic of the fait accompli to override community opposition to its plans. For instance, consider the Power Authority's response to litigation initiated by municipalities in the Niagara region over plans for the project. Between August 1957, when Congress directed the Federal Power Commission to issue a

construction license to PASNY, and January 30, 1958, when the license was issued, these municipalities initiated litigation before the Federal Power Commission concerning their objections. However, according to the 1963 Annual Report of the Power Authority, while the litigation was in progress,

> ...the Authority let contracts for electrical equipment and other project facilities on a tentative basis and carried on preliminary engineering work.[24]

Clearly, the Power Authority had not pioneered new forms of public-energy planning during the 1950's and 1960's. As a countervailing power, it was not fulfilling its mandate to provide energy to public-preference customers, and until 1968 it was locked out of any role as a yardstick in the development of nuclear power.

ATOMIC POWER DEVELOPMENT - A PASNY ROLE?

One of the central factors in understanding the movement of PASNY away from its public-power mandate is understanding how it came to adopt nuclear power for generation. As noted above, when the private utilities first began to push for the construction of steam-generating plants in the 1940's, PASNY objected to this trend as a move to forestall St. Lawrence development.

However, as the IOU's began to advocate the development of nuclear power in the late 1950's, the Power Authority's response was to jump on the atomic bandwagon. Part of the reason for this enthusiasm was the belief that PASNY needed to provide a countervailing power to the private utilities in the

development of nuclear power, because nuclear power would produce far-reaching changes upon social life by changing transportation systems, population settlement patterns, work and leisure.[25]

But PASNY was limited by its enabling legislation to producing power exclusively through its hydroelectric plants. In addition, despite the Rockefeller Administration's expressed interest in developing atomic energy, the Power Authority found itself continuously having to press for permissive legislation to construct nuclear power plants. Consequently, it was investor-owned utility interest in atomic energy that ironically provided the justification for the Power Authority to expand its legislative mandate beyond being a wholesale provider of hydropower, thus insuring its growth as a corporate entity.

Chairman Robert Moses, in a series of annual reports and other publications, made the case for the Power Authority to be allowed to develop atomic energy as a resource of public power for New York State. By drawing upon this countervailing-power argument, Moses couched the trustees' intentions in language that encouraged support from various other State and federal government officials who were advocates of the public-power movement, including Robert Kennedy, Herbert Lehman, and Richard Ottinger.

Although Moses' position implied that the Power Authority should be involved in nuclear-power development in order to

maintain some measure of public control, this logic failed to convince Governor Nelson Rockefeller. Rockefeller felt that the role of the state, including PASNY, should be "confined to facilitating private development in owning and operating nuclear reactors."[26]

In forecasting the future energy needs of New York State, the Governor's Committee on Power Resources (the Burton Committee) reported that the need for additional generating capacity should be met by building power plants capable of achieving new economies of scale. As stated in the report, New York should consider "big use, big units, big transmission and big ideas."[27] The Burton Report encouraged utilities to develop nuclear power plants toward this end,[28] which meant that PASNY virtually was locked out of this picture--since it was limited by statute to the development of hydroelectric power.

Yet, there was another vision of how national power needs might be met while also taking advantage of the economies of scale of big generation and transmission. Leland Olds, former PASNY Trustee and Federal Power Commission Chairman, developed his Giant Power proposal in 1958. The federal government would be responsible for wholesale power-supply planning, emphasizing the mass-production portion of the business. Regional wholesale power-supply corporations would be regulated by a Federal Wholesale Power Supply Commission, which would develop power planning to give full effect to

mass-production principles. The Commission would develop plans to integrate national power supply and would maintain plans for additional capacity "in terms of long-range forecasts of regional and national requirements."[29] It also would encourage the formation of regional wholesale corporations and would cooperate with federal agencies in integrated riverbasin development.

In Olds' program, distribution planning "will emphasize the mass-consumption portion of the business, and because of its local character will be chiefly the responsibility of state regulatory agencies."[30] The advantages Olds claimed for the distribution side of the program were several. First, it would help state regulation by determining the truly local character of cost differentials in distribution. Second, it would provide low-cost power to improve the standard of living for farm and residential consumers. Related to this advantage was the option of preserving public power:

> It would assume the preservation of the right of American communities to choose public or cooperative ownership of their electric utility service by guaranteeing the access of local consumer-owned systems as well as private systems of low cost modern power supply. This opportunity of communities to choose public or cooperative power supply has provided, throughout the entire history of the industry, the most important influence for lower electric rates and larger use of electricity by homes and farms.[31]

Although the recommendations of the Burton Report excluded the Power Authority from expanding its operations and from adopting economies of scale through nuclear operations,

under the leadership of Robert Moses it also appeared disinterested in the vision of wholesale public power.

The Burton Report thus buttressed the argument for atomic-power development, and also called for greater integration of the elecric-utility systems within the State--in order to respond to the State's needs in the decade ahead. While stating that it did not address questions of government or private ownership of the electric system, it placed strong emphasis on atomic power development through joint programs by private utilities. This position is largely explained by the fact that on the seven-member Committee were the presidents of Consolidated Edison, Niagara Mohawk, and Rochester Gas and Electric.

This position of the Governor's Committee on Power Resources immediately was refuted by one of its members--Finla G. Crawford, the Vice Chancellor of Syracuse University and a trustee of PASNY[32]--whose dissent was included in the supplementary statement by the chairman:

> It is recommended that the Section of the report on Atomic Power include a recommendation for permissive State legislation authorizing the Power Authority to build and operate nuclear power plants.[33]

And in subsequent Annual Reports, the Power Authority reiterated its concern that the Governor's Atomic Power Development Program would exclude it from participating. For instance, in the 1960 Report, the Trustees noted that the Authority wanted to contribute its share in atomic

development--not to be the exclusive agency in the State in that field:

> To put it simply, we hold that the State should not at this time and at the insistence of the largest private utility companies commit itself to the proposition that the future development of atomic energy must be exclusively the domain of the private utilities. There is no good reason for such a declaration.[34]

Obviously, this appeal is based upon the notion that PASNY should be allowed to develop nuclear power plants in order to maintain a balance between public and private power. This notion is consistent with the Power Authority's original mission to check the excesses of private utilities by providing an example of how to produce electricity inexpensively from hydroelectric power. Thus, PASNY's first attempt to justify its desire to develop nuclear power was based upon its mandate to be a yardstick regulator. But when this tack proved ineffective, PASNY stepped up its campaign by implying the need for public planning of nuclear-power development in its 1961 Annual Report:

> Let there be no mistake about it. The control of atomic energy will, before long, be the greatest domestic policy question before the American people, because those who control fission and fusion will be the masters of population growth and location, industry, trade, commerce and life itself. This is too great a control to be exercised otherwise than on the theory that it is affected with a major public purpose not to be left exclusively to private-profit enterprise.[35]

While this statement suggests the need for public planning of nuclear-power development--presumably through the Power Authority--there was no indication at the time that the

Authority was prepared, or preparing, for such a responsibility. Given this fact, it would be a mistake to presume that PASNY truly envisioned itself as a planner.

Power Authority Chairman Robert Moses wrote, in a report entitled Atomic Power, that the State's policy could be best implemented by the Power Authority:

> Present federal law puts organizations such as the Authority in a favored position. All atomic power facilities must be licensed by the Atomic Energy Commission; and where the Commission receives conflicting applications for a license it is required by the Atomic Energy Act to give preferred consideration to those submitted by public agencies.... No rural electric cooperative or municipal system in the State is big enough to take advantage of federal help to build a large atomic power plant.[36]

The Authority's most consistent appeal was that because of its tax-exempt status, it could build atomic power plants more cheaply than could the IOU's. It argued this point in the context of the need for developing further capacity for low-cost power to attract industry. While the stabilization of energy at St. Lawrence and Niagara also was mentioned as a justification for a PASNY atomic power plant, that stabilization iself was described in terms of how it would be beneficial for industrial consumers. Further--since this type of project would be expensive--PASNY held itself to be in a better position than were the private utilities to afford undertaking the effort. No clearer indication of the decline of the countervailing-power objective of PASNY operators can be found than in this statement by then-chairman Robert Moses:

> We commend the action of the private companies in the State in carrying out research and development and are willing to cooperate with them as we have on the St. Lawrence and at Niagara. We have no thought of competing with them in basic development but the production of cheap power from atomic energy is vitally important to New York State and the method of producing it raises problems which must be met without preliminary debate on ideological differences.[37]

In effect, the remainder of this first PASNY report devoted to atomic power endorses the technology and the consequent trend toward large-scale plants, without questioning the assumptions of the Atomic Energy Commission concerning costs, or health and safety considerations. That PASNY adopted this approach to gain authorization for development is demonstrated in the next such report, when it appeared that PASNY would in fact be excluded from participation. Entitled New York State Future Power Development, this report states that--due to system overcapacity and to various technical advances--power needs for the remainder of the 1960's could be met by conventional units. It concludes:

> An additional large nuclear power plant will not be completed in New York State before the early 1970's.[38]

In this report the Power Authority seems to take the tack that the abundance of power in New York State indicated that atomic power neither was needed nor would be developed through the 1960's. This extreme shift in position reinforces the claim here that the adoption of nuclear power by utilities owes much more to the demands of institutional maintenance

and/or corporate planning than it does to technological determinism or to system efficiency. Needing a new venture with which to sell bonds after the completion of the Niagara project, PASNY tried to enter the nuclear-power field. As a consequence, its research, development, and operations served rather to bolster the claims for this technology than to examine them.

What we will see occurring in PASNY's actual construction activities are instances of rate-padding that are as significant as the rate-padding carried out by the investor-owned utilities. This is because--from the perspective of electric utility economics--the incentives are substantially the same for PASNY as they are for the investor-owned utilities. In fact, two separate audits of the Power Authority by the State Comptroller noted that a disproportionate share of PASNY's income came from its nuclear plants, while the lion's share of its generation was hydropower.[39] This helps to explain why PASNY held onto its plan to build the Greene County nuclear plant despite mounting evidence that there was insufficient demand for the plant's power in the late 1970's, as will be discussed in Chapter Four.

Rate-padding as a practice of corporate planning by investor-owned utilities has been identified and criticized by Vic Reinemer and Lee Metcalf in Overcharge. Also, in Centralized Power, Messing, Friesema, and Morell claim that

utility construction programs could have proceeded on an ad hoc basis with greater public input, except for the desire of utilities to pad their rate bases:

> ...utility planning consisted primarily of planning for as much system expansion as was financially supportable. An expanding capitalized rate base was in the utilities'interest.[40]

In light of the St. Lawrence and Niagara contracts and of later actions by the Authority to expand its rate base, the objective underlying the adoption of nuclear power was not likely to have been the maintenance of its role as countervailing power to the IOU's. But when Governor Rockefeller's policy of stimulating private investment in nuclear power came under attack in 1967 by the Democratic-controlled State Assembly, the Authority saw the opportunity to gain the authorization it had been seeking. Robert Moses' successor as chairman of the Power Authority, James Fitzpatrick, used his position as a member of the Governor's Electric Power Committee (Folsom Committee) as a means of swaying this advisory group to endorse PASNY's plans for construction of nuclear generating plants. In what appeared to be an effort to undermine the opposition to his aggressive atomic power development program, Governor Rockefeller endorsed the Folsom Report's recommendations regarding PASNY nuclear power plants.[41]

Ironically, then, investor-owned utility interest in atomic energy provided the vehicle for the Power Authority to expand its legislative mandate beyond its being a wholesale

provider of hydropower, thus insuring its growth as a corporate entity. And as we shall see, the 1968 amendment allowing PASNY to construct nuclear plants served to increase the collaboration between PASNY and the IOU's, moving the Power Authority further in the direction of corporate planning and of disdain for citizen input.

But if Moses were correct in his earlier assessment of the impact of nuclear power, it would seem imperative that energy planning take place in a public arena with broad participation of citizen groups at every stage. However, the Power Authority was not at that time involved in the establishment of any such mechanisms to facilitate public input in energy planning.

CORPORATE PLANNING

The Power Authority was moving in the same direction as much of industry in the 1950's. The trend toward corporate planning in the post-World War II period became a central feature of much of the literature on the nature of the economy. Otis Graham reported the results of a McGraw-Hill survey which indicated that by the late 1940's, 20% of the corporations surveyed had 4-year investment plans. By the early 1960's, the percentage of corporations surveyed who were engaged at least in the same level of planning had risen to 90%.[42]

John Kenneth Galbraith argues that this increase in planning was a function of the large scale of operations that

had become the norm for the modern corporation. In order to lessen the risks of loss that could occur if corporations simply let supply and demand work freely, planning affords them the opportunity to control supply and demand in such a way as to manage profitable growth. A consequence of the need to plan would be the development of a technostructure, which as a vested interest would manage the corporation's operations in such a way as to advance its own power. In this sense, Galbraith's understanding of corporate planning builds upon the basic assumption that the object behind corporate planning is to transcend the competition of the free market.

A common theme running through the corporate planning literature is that the increase in planning activity is manifest in all organizations. For instance, witness this statement from a popular text on managerial planning:

> First of all, I see an increase in planning activity, in the number of man-hours devoted to planning in all organizations, and an absolute as well as a relative increase in terms of total expenditures of management time. If this premise is true, I think it means a trend toward more central planning in many types of organizations, both private and public. If the amount of effort applied to planning increases, there is bound to be an increase in the number of people devoting their career to planning.[43]

Andrew Shonfield attributes this trend to the adoption of increasingly complex technology in the production process. His analysis of the pressures upon the modern corporation to engage in planning foreshadows the argument John Kenneth Galbraith makes about the development of the technostructure

in large-scale corporations. Shonfield states:

> It is, indeed, characteristic of modern capitalist planning that the impulse to embark on the seemingly speculative enterprise of long-term prediction comes from the industries which find that they are compelled, because of the nature of the technology that they employ, to commit large individual blocks of capital to projects that will only pay for themselves after the lapse of several years. Systematic economic analysis, preferably in collaboration with other industries similarly placed, whose decisions will also influence the outcome, is then the obvious way of reducing the size of the risk.[44]

The utilities' decision to adopt nuclear power and to engage in the long-range planning activities accompanying it resulted because the technology fit into the scheme of utility economics and into the trend toward centralized power. Besides the inducements offered by the federal government to invest in nuclear energy and besides the salesmanship of the reactor manufacturers, the construction and operation of nuclear power plants provided new opportunities to pad rate bases.

CORPORATE PLANNING IN THE ELECTRIC SYSTEM

Certain distinguishing features emerge in viewing corporate planning from the perspective of the electric-utility industry. As stated in the previous chapter, the industry advocated state-government regulation as a means to escape problems associated with competition between several companies serving the same territory. At the same time, government regulation was seen as the lesser of two evils facing the private-utility industry, which felt threatened by the public-power movement. In effect, state governments,

through regulation, provided the mechanism for the private-utility industry to transcend market competition. This exemplifies Gabriel Kolko's notion of political capitalism--where corporations obtain government aid in establishing an environment which allows them to operate outside of the rigors of free-market competition--thus insuring their survival and their continued prosperity. He postulates that the establishment of government regulation during the Progressive Era resulted from big business' search for a government framework conducive to its needs for circumventing competition and imposing rationality.

This is more recently demonstrated with the movement of the electric-utility industry toward planning, where the relationship with government has had to be cast anew in a form which will continue to provide insulation from competition, and at the same time will ensure private control of energy forecasting. In this sense, electric utilities actually are determining electricity demand in the act of engaging in load forecasting with declining block rate pricing, because the production of "x" amount of generating capacity produces an incentive to consume that same amount. With the determination of electric-utility recompense for its operations as it stands today, the electric-utility industry in effect is engaged in creating artificial demand for its own product. And because citizen groups opposed to the expansion of generating capacity challenged utility forecasting and pricing, the utilities

responded by attempting to close off the planning processes from citizen input.

Planning in this context is then understood by the dual objectives of circumventing competition and creating artificial demand. The choice of technology and the operations to implement the technology are consequences of those objectives, not objectives in and of themselves.[45] As Kenneth Sayre notes in Values in the Electric Power Industry, expansion of generating capacity--and consequently of rate base--is the norm within the entire electric-utility industry. With regard to nuclear power, he further claims that the Nuclear Regulatory Commission collaborates with electric utilities because, when acting upon applications for nuclear plants, it never seriously considers the alternative of adding no additional generating capacity--although that is one of the fundamental elements of the Environmental Protection Act of 1969.

Sayre argues that within the Nuclear Regulatory Commission, there is "an implicit equation of need for electric power with anticipated demand."[46] Beyond those electric utilities with nuclear plants, Sayre notes that system expansion seems to be a central assumption of planning. He concludes:

> Nowhere within the complex decision-making process of the electric power industry is there any provision for systematically considering the curtailment of consumption as a serious alternative to continued expansion of power production.[47]

The industry bias toward power-production expansion is demonstrated concretely in this statement from an intervenor in a rate increase request by Central Hudson Gas and Electric Company:

> Outside the electric-utility field, a business that overestimated growth by a wide margin and constructed productive facilities far beyond actual demand, as Central Hudson did, would probably be in serious financial difficulties, if not in bankruptcy. But the difference in this case is that the rules of the electricity business are very different than for most others. The Public Service Commission has simply allowed the extra costs due to excess capacity to be included in the rate base, and the company has been permitted to raise rates to customers and make up the loss, plus some extra profits to cover the investment in idle facilities.... Central Hudson actually has a strong economic incentive to push investment, even if idle, and growth, even if for wasteful electric heat. And from this incentive comes the rosy forecasts and enforced high pace of premature installation of generating capacity that has characterized, and continues to characterize, their investment policies.[48]

The implication in Sayre's analysis is that electric utilities will have a predisposition toward large-scale, capital-intensive, centralized generating systems. Working from that basis, Messing, Friesema, and Morell ask whether the trend toward building large-scale generating units--particularly nuclear--has resulted in a centralization of political authority concerning energy policy as well. While they conclude that no such centralization has taken place, they note that public-power systems engaged in centralization increasingly have become similar to private utilities in terms of how they go about planning:

> In instances where municipal power systems generate their own power, their planning is generally similar to the load forecasting and expansion planning of private utilities based on extrapolation of past trends or models of anticipated regional growth.[49]

This means that public-power systems also are likely to have inflated forecasts and to be prone to premature generating capacity installation. Further, with regard to public-power systems, the authors state:

> Although they give the appearance of heterogeneity, diversity, and public ownership to the electric-utility industry, from the standpoint of system development they have served to support increased centralization through the provision of an extensive distribution and marketing network and the absence of a competitive interest either in owning and operating generating systems **or in providing integrated energy planning in local planning decisions.**[50]

Thus, to the extent that public-power systems take on the same objectives as investor-owned utilities, they are likely to oppose increased citizen oversight and questioning of their pro-growth strategies.

PASNY's role in electric-system planning is of particular interest here. Beginning in the mid-1950's, the convergence of several factors led the Power Authority to engage in energy planning very much similar to that of the investor-owned utilities. First was its desire to expand its yardstick competition capabilities by developing more generating capacity. Second was the Burton Report to Governor Rockefeller, which called for large-scale generating units. Third was the movement to develop nuclear power, stimulated by

the federal government's Industrial Participation Program in 1952. And a fourth factor was the development of the Nuclear Power Pool, which came as a response to the Northeast Power Blackout of 1965. All of these factors are related in the sense that they resulted in an increase in the scale of PASNY operations, and in greater integration of those operations with those of the investor-owned utilities.

Again, this trend in PASNY's operations is not surprising. Various authors have observed the increasing similarities since World War II between public and private institutions in terms of their approaches to planning. Andrew Shonfield observes in Modern Capitalism that the distinction between public and private forms of planning increasingly is becoming blurred. Also, Edward Mason notes in The Corporation in Modern Society that it is the large-scale organizations, both public and private, that engage in planning.

And it is essential to note that every planning regimen--whether public or private--is built upon the assumption of its own rationality. This means that the planning regimen thus is engaged in the process of reproducing itself, because it imposes its own rationality upon other competing forms. Put more simply: to the extent that the planning regimen has become essential to the maintenance of the corporation, or of the industry, newly emerging planning systems which pursue different objectives will be undermined by that corporation or industry. This reproduction of the planning system thus

expands planning in much the same way that Karl Marx explains the dynamic of capitalist production as the reproduction and growth of capitalism.[51]

Before going further, it is necessary to clarify here how the adoption of nuclear power would lead to corporate planning. John Kenneth Galbraith notes in The New Industrial State that "From the time that capital must be committed, the inflexibility of this commitment, the needs of large organization and the problems of market performance under conditions of advanced technology, comes the necessity for planning."[52] Given the investment of several years and of billions of dollars in plant construction, the decision to construct nuclear plants fits Galbraith's definition of projects calling for planning. Because nuclear power has resulted in some changes in utility planning, it deserves separate discussion.

NUCLEAR POWER AND CORPORATE PLANNING

The policy of adopting nuclear technology illustrates several areas of concern for utility planning: the creation of artificial demand; sensitivity to money markets; and the perception of threats resulting from increased citizen involvement in energy policy.

Through their development of nuclear power plants, the IOU's were gearing their planning to the objective of expanding the rate base. This prompted a response by the Power Authority also to gain authorization to develop its own

nuclear power capacity, presumably as an extension of its mandate as a yardstick competitor. In addition, the Public Service Commission found itself having to respond both to the requests of IOU's for greater rate relief for their nuclear plants, as well as to the critics of nuclear power. By 1970 those pressures had become so great that the PSC itself was restructured in an effort to stabilize the environment for New York State's electric utilities. In order to understand how this dramatic change in the regulatory environment developed, it is necessary to consider the effect of the utility bias toward capital-intensive technology.

Expanding upon the consequences of capital-intensive rate policies in The Economics of Regulation, Alfred Kahn cited the following practices as resulting from capital-intensive rate policies: (1) a high percentage of standby reserves; (2) a resistance to capital-saving technology; (3) a reluctance to lease and collateral preference for self-construction; (4) excessively high reliability standards; (5) a reluctance to engage in regional investment coordination; and (6) a willingness to promote load growth at rates that fail to recover incremental costs.[53]

Another cost of the capital-intensive bias of utility policy is waste. One example is provided by the fact that the enrichment of uranium--the process by which it is made into a fissionable fuel--entails the voracious consumption of electricity.[54] The authors of Centralized Power explain

that the construction of generating capacity beyond that required for demand-plus-reserve leads inevitably to an increase in consumption, because of the incentives built into the declining block-rate structure.[55] These seemingly isolated instances of electricity waste illustrate collectively that this bias in electric-utility planning has significant costs. Consequently, the prerogatives of utility planning are guarded from public agencies that may wish to intervene with alternatives.

Another area where the imprint of corporate planning is visible is in the frustration of the development of new technologies which are less expensive, use more renewable resources, and are less polluting. In The Sun Betrayed, Ray Reece documents the systematic efforts of the nuclear industry--including utilities--to limit energy options. And Barry Commoner argues for a U.S. military expenditure on generators-- promising to lower the cost of solar cells significantly--an investment which has yet to be made. Indeed, the first budget of the Energy Research and Development Agency in 1974 called for ten times more money to be spent on civilian nuclear energy than for basic research.[56]

This trend toward wasteful production was noted decades ago by Thorstein Veblen in The Engineers and the Price System, where he refers to the deliberate industrial control of supply through underproduction as sabotage. The deliberate

withholding of energy capacity repeatedly was raised as an issue by citizen critics of the Nine Mile II plant. As will be discussed in Chapter Four, critics have charged that Niagara Mohawk was foregoing some promising hydro sites in order to justify adding the Nine Mile II plant to its rate base. Again, with the incentive to engage in rate padding that arises from utility finance, not only are there excessive rates--due to the preference for capital-intensive generating plants--but regional energy planning is undermined because of the competition between utilities to add to their rate bases.

Other sources of conflict within the utility industry stem from environmental and regulatory constraints. One example is the conflict between utilities competing for scarce coolant water for nuclear reactors. Since Nine Mile II was the third nuclear reactor constructed on Nine Mile Point--Nine Mile I and PASNY's Fitzpatrick plant were the others--the thermal pollution standards for the flow-through cooling water were going to be difficult to maintain. Consequently, Nine Mile II was designed with a cooling tower.

CORPORATE PLANNING IN PUBLIC CORPORATIONS

The actions of the utilities relative to the declining block-rate financing demonstrate that the objective of utility operations is to achieve growth. As Galbraith notes in Economics and the Public Purpose, production sets the price--meaning that the supply first is arrived at and then the price is set to achieve the objective of growth. This should occur

in the planning of the Power Authority as well as in that of the investor-owned utilities, according to Galbraith, because

> Members of both the public and private bureaucracies are served by growth and the consequent promotions, pay, perquisites, prestige, and power, and what expands one bureaucracy expands the other.[57]

Furthermore, public corporations develop planning similar to that of private corporations because their financing comes from private money markets which demand that investment in their operations will be profitable. Put more simply, since public corporations are competing for their funds, in order to remain an attractive investment they must demonstrate a capability of paying out.

In addition, it is important to recognize the influence of pressures from the political environment upon public corporation operations. Avery Leiserson claims that the TVA had maintained an inconstant balance between its administrative autonomy and accountability to the public, because of the pressures from its own political environment:

> In perspective of political capabilities as distinct from its legally defined status... TVA's corporate autonomy has been much more a contingent, fluctuating variable than a constant, stable assumption.[58]

One key element, then, of a public corporation's autonomy is the stability of its political environment. Due to the multiple-policy mandate of its enabling legislation, a larger number of community groups and institutional forces went to work in shaping TVA's policies and operations than has been

the case with the Power Authority. Despite this expanded scope of political pressure, Leiserson concluded that TVA did not "sell out" to become just another power company. Rather, the Board "took direct responsibilty for river control in power production, compared with its delegation and cooperation with other agencies in the area of land use, forestry, and industrial and community development."[59]

What is the basis of this movement toward taking direct responsbility? TVA needed to justify its existence within a market logic. Because of this need to justify or to legitimize itself, it placed an emphasis on producing low-cost electricity. This emphasis later generated great criticism of its policies from environmental groups. Harry M. Caudill was an early critic, attracting national attention in 1962 to TVA's policy of buying strip-mined coal in its effort to maintain the policy of low-cost electricity production.[60]

Marc Roberts and Jeremy Bluhm, however, make the case that TVA's environmental indiscretions resulted from its internal structure. They claim that the weak Board of Directors arrangement gives the Division of Power Production a great advantage in determining policy on environmental matters. While the Division of Power Production advocated the use of taller smokestacks as a measure to ameliorate sulphur dioxide pollution from its coal-burning plants, it also followed a go-slow policy on installing precipitators. This decision, coupled with its aggressive purchasing of strip-

mined coal, led to President Carter's appointment of David Freeman--a critic of TVA's environmental and conservation policies--as chairman in 1978.

The attempt to shift TVA philosophy in an environmental direction with the Freeman appointment bears out a point made by Avery Leiserson, that in the "dialectic of TVA's development, relegitimation rather than transformation describes the outcome of each stage of struggle between the protagonists for priority among the agency's clientele..."[61]

Applying the same point to PASNY's development, one of the most significant events in the movement toward corporate planning was the decison to adopt nuclear technology as a means of adding to PASNY's own generating capacity. As noted above, much of the literature points to the use of increasingly sophisticated and costly technology as a cause of economic concentration and corporate planning. However, it should be obvious at this juncture that the concentration in the utility industry developed less out of any technological imperative, and more as a result of utility finance in the development of mechanisms to circumvent State rate regulation. As already noted, the Power Authority under Robert Moses's leadership demonstrated a great sensitivity to the bond markets with its first contracts for St. Lawrence power. Thus--in order to place the development of corporate planning by the Power Authority within the context of corporate planning in general--it is essential to elaborate upon the

systemic causes for economic concentration and corporate planning.

THE MOVE TO CORPORATE PLANNING

Walter Adams and Horace Gray argue in Monopoly in America that there are in effect no technological imperatives leading to economic concentration.[62] Rather, they argue that the trend toward economic concentration "is largely an artificial, institutional phenomenon which originates in, or derives sustenance from, the actions and policies of the federal government."[63] There is evidence of state government actions and policies as causal factors in the concentration within the utility system in New York State, notably in the first years of Nelson Rockefeller's governorship. A report compiled by Edward Burton entitled "The Governor's Committee on Power Resources" called for the State to think in terms of building "big units" as the answer to its future energy needs.

This encouragement from the Governor's office provided an impetus toward the construction of nuclear power plants. However, there were more basic forces at work in encouraging economic concentration and, consequently, corporate planning.

Richard Barnet and Ronald Mueller provide a lucid explanation of these forces in Global Reach, where they discuss the Product Life Cycle. Quite simply, the Product Life Cycle describes the process whereby oligopolistic competition leads to corporate strategies designed to enhance growth of the market share as a means to continue to attract

investment.[64]

The significant aspect of the Product Life Cycle is that this development is not a matter of choice, but one of necessity flowing out of the logic of oligopolistic competition. It suggests that for the Power Authority to survive, it must attract investors willing to purchase the bonds issued by the Authority for construction of its own projects, just as a private utility must attract investors in order to finance its projects. This necessity explains in large part the conservatism of the bond covenants attached to PASNY projects which have a large impact upon planning and operations.

Once the necessity for gaining a large market share of electricity is recognized, it is but a short step to recognizing as well the impetus for corporate planning. Any mechanisms which can aid a firm in gaining a larger market share and limiting the price deflation of competition is welcomed as a means of assuring the stability of the firm.

PASNY AS COUNTERVAILING POWER

There is little evidence of PASNY's playing the role of countervailing power to the private utilities in New York State during this period, even while there was a concerted effort to develop the new technology of nuclear power. Two apparent instances of countervailing-power activities mentioned here suggest more that the Authority was protecting its own interests as a corporate entity--similar to what a

privately owned corporation would do--than that the Authority was engaging in a systematic effort to be a countervailing force to private-utility abuses.

One apparent instance of the exercise of countervailing power is the antitrust legislation pressed by PASNY against electrical-equipment manufacturers in the United States for price-fixing. The Authority conducted hearings regarding purchases of its generators, which produced evidence "that the three domestic companies [General Electric, Westinghouse, and Allis-Chalmers] jointly put on a concentrated campaign in 1954 to dissuade the Authority from accepting foreign bids for St. Lawrence generators."[65]

In this antitrust litigation, the Authority did not play a leading role on behalf of public utilities, or utilities in general, but investigated the impact upon its own costs of operation. Because the Authority did accept foreign bids along with those of the domestic companies, it concluded that if there had been collusion, there was little likelihood that the Authority could demonstrate it had been damaged considering the low purchase prices of its generators.

In the actions brought against General Electric Company, G.E. agreed to pay the Authority $307,000 as a settlement of damages for the overcharge on the St. Lawrence hydro-generators purchased for $13 million. What is perhaps as significant as the settlement is the considerable restraint the Power Authority appeared to have exercised in arriving at

an agreement.

The Tennessee Valley Authority, on the other hand, played a pivotal role in this case, having been frustrated by the electrical equipment manufacturers' practice of submitting identical bids. The manufacturers also engaged in other collusive practices, including the phases-of-the-moon bid-rigging scheme which allowed them to plan which companies would receive contracts for equipment.[66]

The following explanation to bondholders of PASNY's rationale for concluding the agreement does not suggest that it acted with the vigilance of a countervailing power:

> In making the settlement which did not contain any element of punitive damage the Trustees of the Authority exercised their best business judgement, taking into consideration all factors including the importance of General Electric to the welfare of the State and the nation, . . . the fact that this antitrust litigation is placing an intolerable burden on the Courts, and the fact that energies and talents of engineers and others should be engaged in productive activities for the benefit of the country rather than in preparing ammunition for legal jousting.[67]

As part of its operations, PASNY also engaged in some studies and activities which could be construed as instances of its exercising countervailing power. One such instance concerns the Chicago Diversion case initiated by the State of New York and other Great Lakes states, in cooperation with PASNY, to reduce the City of Chicago's diversion of Great Lakes water. The diversion from Lake Michigan affected waterflow throughout the Great Lakes and was opposed by the Authority because of its impact upon power generation and,

consequently, upon revenue.

The Chicago Diversion case was one in which the Authority, over time, assumed a more significant role because of that perceptible impact upon waterflow and revenue. Judge Albert B. Maris, Supreme Court Special Master, estimated that for each 1,000 cubic feet of water diversion above the 3,200 limit decreed in 1966, there would result a substitute steam power cost of $930,000 per year for New York and Canada.[68] That the Authority pressed no further in the litigation and offered no policy alternatives for waste management or for waterflow stabilization indicates that its foremost priority was protecting its revenue-generating capacity.

When PASNY's refusal to accept new municipalities as customers is considered, it appears even more clear that the Authority was not acting as a countervailing power during this period. But perhaps the most telling indication of its decline as a countervailing power is the systematic coordination of its activities with those of the investor-owned utilities within the New York Power Pool, which deserves separate examination.

NEW YORK POWER POOL

The last of the events of the 1960's signalling the utilities' move toward corporatist planning was the creation of the New York Power Pool in 1966. After the Northeast Blackout of 1965, Governor Rockefeller again asked for a report on the causes of the catastrophe. The report concluded

that there was insufficient integration of the facilities--primarily transmission--of the major investor-owned utilities in the State. The IOU's were quick to respond, forming the Power Pool.

The New York Power Pool was to serve as a coordinating agency between the upstate and downstate utilities, and was first composed only of the seven major investor-owned utilities. By 1967, however, the Power Authority also became a member of the Pool, thus participating in the power-dispatching, planning, and joint research activities conducted by the Pool.

On a broader scale, the Northeast Power Coordinating Council (NPCC), also created in 1966, served the same purpose for the electric utilities in the Northeastern U.S. and Canada. The formation of the NPCC, comprised of 22 utility systems in all (including PASNY and the Hydroelectric Power Commission of Ontario, Canada) is best understood as a direct reaction to the Northeast Blackout. While the NPCC's coordination functions were a contributing factor in the decline of PASNY's activities as a countervailing power, it was not in the NPCC that the major activities of corporatist planning were developed. As the body to which the utilities submitted their load forecasts and reports on research and development plans, the New York Power Pool played a crucial role in the efforts of the electric utilities not only to coordinate operations but to plan their development as well.

For this study, the 1967 entry of PASNY as a participating member of the Pool is a signal event, because it provides the first example of a formalized role played by the Authority in joint planning with the investor-owned utilities. While the Power Pool's activities in encouragement of joint research and development, joint load forecasting, and joint construction of facilities by the utilities will be the focus of this analysis later, the question of the initial objectives in creating and operating the Power Pool requires some discussion at present.

According to the authors of Perspectives on Power, the creation of New York State's Power Pool as a response to the blackout would be unique because the "practical stimulus to joint planning was the capital market."[69] This may explain why the Office of Atomic Development earlier had reported informal instances of pooling operations in connection with the investor-owned utilities' efforts to develop commercial atomic power. In addition to greater access to finance capital for participating utilities, the authors of Perspectives on Power claim that pooling helped to introduce greater "diversity of management philosophy into the corporate decision-making process."[70]

Some important caveats about power pools were raised by the same authors, such as:

> The pools are dominated by the larger utility systems, prejudicing their smaller associates and raising antitrust questions. Moreover, there is no opportunity for public input at the initial

decision-making stages.[71]

In a general sense, the last concern expressed above is the focal point of analysis here, because it clearly indicates a movement in the direction of corporate planning.

However, it is important to recognize that much of the pressure for integrated utility operations came from government, even before the Great Blackout. As noted above, the Burton Report called for integration of utility research and development and operations in a very similar vein to the Power Pool's request in 1959. Also, the Office of Atomic Development implicitly suggested that the major investor-owned utilities would have to engage in pooling efforts to make commercial atomic power development a reality. Peter Schiff argued that not only the Power Pool itself, but various other integrating operations, had to be forced upon the utilities by the PSC and by other State agencies. State encouragement of the creation of the New York Power Pool, along with the other activities described above, resulted from the desire to improve the reliability within the electric system as a whole, but also indicates the emergence of corporatist planning.

Authors Marc Messing, H. Paul Friesema, and David Morell acknowledge that power pools have enhanced the planning of electric utilities, but they disagree that the product of that planning has resulted in greater system reliability or efficiency:

> Power pools have proliferated, but utility coordination has remained limited, and power pool

> reserve margins have increased. Regional power planning has proliferated, but has only made the planning less accessible to state and local governments.[72]

Further, these authors claim that bodies like the Northeast Power Coordinating Council enhance corporate planning and further remove it from the control of regulatory authorities:

> Although reliability councils exist as voluntary associations of utility companies and operate without force of law, they have effectively increased planning horizons of electric utility companies through coordinated submission of data to the FPC regarding planned capacity additions, unit requirements, construction programs, and so on.[73]

By 1967 the coordinating activities of the NPCC had advanced to the point where the New York Power Pool resolved to establish a single energy-control center for the state, to be located in Guilderland, near Albany. This control center would direct electric-power generation and transmission throughout the State by supervising the loading of that equipment.

It is also clear that the Power Pool was advancing in the direction of coordinating the planning of other aspects of electric-system development, as witnessed by the following statement in a Niagara Mohawk Power Company Annual Report:

> Under the New York Power Pool agreement, each of the companies continues to be fully responsible for maintaining adequate electric generating capacity and transmission facilities within its own service area. **However, the Pool and its operations will be mutually helpful in determining the best location, size, timing, and required transmission for new generating units.**[74]

But despite its mission and the fact that its coordinating activities already had been established, the members of the New York Power Pool did not embrace the reliability measures advocated by the Public Service Commission in the early 1970's. Peter Schiff, former Public Service Commission Counsel, argued that planning had to be imposed upon the utilities, even when the load reserve at the time was only around 12%. It appears likely, though, that the substance of the utilities' objections to the PSC plans had much to do with the disclosure requirements for utilities, even when there were not yet explicit mechanisms for public intervention in the planning process. As will be examined in Chapter Three, from the utility perspective the purpose of the State's planning system was to limit public input, not to enhance it.

NUCLEAR POWER--THE ROLE OF THE FEDERAL GOVERNMENT

Regarding federal incentives, three areas of legislative action by Congress provided a more conducive climate for private development of atomic energy. First, the Price-Anderson Act of 1957--discussed above--lessened the liability impediment from private atomic-power development. Not only did this act set a liability ceiling for a nuclear accident of $560 million; it established a fund from the A.E.C. and private insurers to pay for such accidents.

Second, the government monopoly on patents for nuclear energy within the McMahon Act of 1946 was revised in the

Atomic Energy Act of 1954 to provide for a five-year extension of compulsory licensing. This in effect meant that any atomic-energy patent could be declared "affected with the public interest," thus entitling the AEC or any of its licensees to its use "with reasonable compensation to the owner."[75]

The five-year time frame for the extension was a compromise between the Senate legislation--which called for a 10-year period--and the House bill, which had no provision for compulsory licensing. Even with this extension, there was concern that the knowledge essential for participation in the development of atomic energy would be concentrated within a few large corporations, because that had been the case prior to the revision in 1954. For instance, only one company--Dupont--had been chosen to operate the government plant at Hanford, Washington; another, General Electric, the plant at Oak Ridge, Tennessee; while Union Carbide and Carbon was chosen to operate the facilities at Paducah, Kentucky.

Besides these operating companies, there were 13 "study teams" involved in atomic-energy research and development, each of which was comprised of private-utility industrial companies. One of these study teams was the Detroit Edison-Dow Chemical Group, made up of 23 private power companies (including Niagara Mohawk), 3 engineering and construction firms, and 5 chemical and manufacturing companies.

Niagara Mohawk's involvement in this group began, as a matter of fact, two years prior to the Atomic Energy Act of

1954. It is apparent that even with extension of compulsory licensing, the investor-owned utilities and private industrial concerns had access to information on atomic-energy development almost exclusively enjoyed by private interests. For instance, Adams and Gray noted that of all of the groups represented on these study teams, the Tennessee Valley Authority was the only public one.

Senator Henry Jackson, (Democrat, Washington), argued that with the expiration of the compulsory licensing period, a small group of companies that had been active in the field of atomic-energy development would

> ...be able to patent a number of processes, not because they would suddenly acquire them under the new law, but because through the years they have built up the scientific talent and capacity to do much in the atomic field that other companies were not able to do, because other companies have not had the invaluable experience in the operation of atomic energy plants.[76]

The licensing provisions provided safeguards termed by Adams and Gray as "elusive and deceptive."[77] In effect, the legislation provided for the Attorney General to give an advisory opinion concerning the consistency of a proposed license with antitrust laws. This replaced "an analogous provison in the McMahon Act under which the Commission was explicitly **directed** to follow competitive licensing policy, i.e., to refuse licenses where the effect of granting them might be to foster trade restraints or to obstruct the entry of new, freely competitive enterprises into the field."[78]

A third incentive--also built into the Atomic Energy Act

of 1954--was a subsidy for the radioactive-waste byproduct from nuclear plants. Senator Wayne Morse, (Independent, Oregon) proposed an amendment concerning the price paid for the plutonium waste, which would serve as a yardstick. While the amendment would have compelled the Atomic Energy Commission "to inquire into the costs incurred in producing the joint product, and the revenues received for the sale of one of these products (electricity)," the amendment was never debated.[79]

The fact that this radioactive waste subsidy was left indeterminate in price indicates not only the degree to which the federal government was engaged in encouraging private investment in atomic energy, but also indicates one of the most significant reasons it was opening this area up for private investment. The touted potential of nuclear power as a fuel supply for electricity generation was matched by the federal government's desire to have access to larger supplies of fissionable material for nuclear weapons.

Several statements found in Atomic Power and Private Enterprise, a 1952 report from the Joint Committee on Atomic Energy, provide evidence for this assertion. In these hearings, spokesmen for major electrical equipment companies expressed their reservations about developing nuclear plants and the incentives they felt would be necessary for interest in private development. Concerning incentives the report stated:

> The most commonly discussed special incentive involves guaranteed AEC purchase of plutonium at an established price for a minimum span of years. The period of time and the price were usually defined as adequate to insure full recovery of all investment, minus an allowance for the going market value of the power produced.[80]

Concerns expresssed by these industry representatives centered upon the demand for plutonium:

> AEC public statements which appeared while this survey was being conducted suggested that the military demand for plutonium may be met "in the foreseeable future." These statements were of keen interest to those who had been responsible for some of the optimistic public forecasts about atomic power issued earlier in 1952. Spokesmen for one chemical group indicated that these new AEC statements must be taken as reflecting a startling reversal of policy and that, if the statements turned out to be well founded, their group would have no further immediate interest in atomic power.[81]

Under the heading "What Are the Defense Aspects of Atomic Power Development?", the AEC expressed its arguments for finding means to produce weapons material rapidly and cheaply not only for "immediate needs" but because design changes require more material. They further stated:

> All of these latter arguments were used to support the contention that the best defense system could be achieved by encouraging private industry to develop, construct, and operate a considerable number of atomic power plants capable of producing large quantities of power and small quantities of fissionable material in peacetime and also capable of conversion to production of smaller quantities of power and large quantitites of fissionable material in wartime.[82]

The AEC concluded the report with a testimony to the importance of plutonium sales as an inducement to private industry interest in nuclear power plants:

> Throughout the survey all prospects for atomic power development appeared to be dependent on a decision as to whether or not more plutonium will be needed to meet military requirements.... If more plutonium is needed... several groups are currently interested in joint undertakings with the AEC in building dual purpose plants to sell plutonium to the government and to sell power commercially.[83]

NUCLEAR POWER--THE ROLE OF NEW YORK STATE

New York State began to take a leading role in encouraging atomic-energy development very soon after the passage of the Atomic Energy Act of 1954. By 1955 it had adopted a radiation code, and Con Edison was granted the first permit for a non-federally-owned atomic power plant. The State's first atomic energy adisory committee was appointed in 1956, which called for an atomic energy law, adopted in 1959. In 1962, New York entered into a federal-state cooperation agreement with the Atomic Energy Commission, assuming regulatory jurisdiction over some atomic-energy materials; and in the same year the State created the Atomic and Space Development Authority to administer its atomic development programs. Among other activities undertaken by New York State to play a leading role in atomic development were the encouragement of a port to handle the shipping of nuclear materials, and the establishment of the West Valley Site for a nuclear-fuel reprocessing plant.

This by no means exhaustive list clearly indicates the State's inducements for atomic-energy development. As discussed above, from PASNY's perspective the danger was that the State emphasis on private development would lead to its

being locked out of the field.

In February 1959, Governor Nelson Rockefeller asked the State Legislature for an Atomic Energy Law in order to encourage atomic-energy development in New York State. As part of this law, an Office of Atomic Development was created to aid in the coordination of agencies, departments, and municipalities dealing with atomic energy; to encourage private investment in atomic energy; and to streamline the regulatory process. Quite clearly, Rockefeller meant for this office to focus its efforts upon fostering private initiative in atomic-energy development.

Equally clear was the message that the State would tailor the regulatory environment toward the needs of private industry, as demonstrated by the following statement:

> New York is now the headquarters of more organizations having an interest in atomic energy than are located in any other state. To encourage these and other organizations to make New York State the center of atomic activities, **the State must be alert in providing the regulatory climate, the trained personnel, and the incentives most conducive to private atomic development.**[84]

The Office of Atomic Development (OAD) proffered that the states could assume a pivotal role in atomic-energy development through establishing appropriate regulatory frameworks. The following statement attests to this point:

> Our premise...is that the proper role of the states in atomic energy is that of a discriminating catalytic agent which helps to bring into being within the State important new activities that reasonably should be placed there and that otherwise might not exist there.[85]

In general, the OAD recommended that the State assume the greatest degree of regulatory authority over atomic-energy development that the Atomic Energy Commission and the Atomic Energy Act of 1954 would allow. Thus, the federal-government inducements for atomic-energy development were supplemented in New York State by Governor Rockefeller's subsidies, research and development support, and publicity efforts to attract atomic-related industries and government research projects. This atomic New Federalism provided a great boost to the already extensive competition between states and regions to attract industry.

In addition, the State was engaged in playing the role of atomic-energy promoter, with a zeal that appeared to be fed by the concern that it could lose its position in attracting industry if it failed to get involved in the development of this new energy technology. The Office of Atomic Development noted in 1961 that the revision of the Atomic Energy Act of 1954 had provided a new role for state governments in the area of atomic energy:

> It became possible for them for the first time to engage in promotional activities--a traditionally highly valued and universally practiced State function--in regard to major atomic facilities.[86]

Those promotional activities included identification of storage sites for radioactive byproducts; locating sites for an atomic test reactor and port facilities; and accepting the transfer of regulatory authority from the AEC. It is clear in the actions and statements of the Office of Atomic

Development, that the State considered itself to be taking an active role in making nuclear power a viable technology for electrical generation.

This regulatory framework had some interesting features from the perspective of American federalism. First, New York was calling for regulatory control to "be made as nearly normal as possible so that atomic matters are not always both literally and figuratively a 'Federal case.'"[87] Secondly, regulations, codes, and standards in terms of radiation limits were to be streamlined to avoid confusion and overlap.[88]

The electric utilities' adoption of nuclear power did not come simply because of the government incentives and because of nuclear power's potential to provide avenues to inflate the rate base. It is also essential to recognize the external pressures upon electric utilities to adopt atomic energy as a source of generating electricity. The Office of Atomic Development noted in its 1959 Report to the Governor that there were currently 15 companies in the United States involved in research, design, development, and construction of nuclear reactors. These reactor manufacturers competed to capture the electric-utility market by providing their own incentives in the form of turnkey contracts. Authors such as H. Peter Metzger, David Lilenthal, and Peter Pringle and James Spiegelman have described the significance of the turnkey contracts as a primary cause for the problems of the nuclear industry in America.[89] The untested technology being sold

in a competitive market led reactor manufacturers to make significant changes in reactor design--including upscaling of capacity--without having tested the previous models under long-term operating conditions. Additionally, David Lilienthal argues that, in their desire to cut costs to make reactors competitive the manufacturers adopted some of the cheapest--and least safe--technology available.[90]

However, the turnkey contracts were attractive because they offered the utilities the advantage of purchasing completely operational reactors. Other factors also provided important inducements for private electric utilities to adopt nuclear-generation technology. Generally there were high load forecasts for electricity demand, requiring large additions to capacity. The potential to pad rate bases with the expensive technology for nuclear generation was coupled with the prohibitive costs for smaller public power systems of the technology. Also, the aforementioned government incentives to build nuclear plants were significant. Thus, the technological imperative argument appears to be plausible only within the context of understanding how the technology fits into the environment within which the decision-makers are operating.

In order to advance and defend their interest in nuclear power, the utilities of New York State exercised influence over energy policy by providing the expertise on advisory bodies for the governor. Beginning in 1957 with the push for

the Office of Atomic Development, there were a number of advisory groups for the governor dealing with matters pertaining to the electric-utility industry.

For instance, individuals serving Niagara Mohawk and Consolidated Edison sat on the Governor's Committee on Power Resources (Burton Report), and on the Townsend Committee, and contributed to the Report on the Northeast Blackout of 1965. Earle Machold, as President of Niagara Mohawk, served on the Burton Committee, the Townsend Committee, the Northeast Power Coordinating Council, and the Committee to Investigate the Northeast Power Blackout. Having leadership positions in these boards provided access points for the private utilities to set the stage on energy policy in terms of funding for research and development and for atomic power; for reliability of the transmission network; and for joint construction and financing.

Concerning load forecasting, the representation of utilities on boards such as the Northeast Power Coordinating Council afforded them opportunities to build-in their assumptions on electricity demand growth. Of course, the creation of the New York Power Pool lent legitimacy to member utilities' planning discussions, and served to increase the opportunities to coordinate their actions above and beyond the improvement of system reliability. The impact of these advisory councils upon public policy is examined in such works as Smoking and Politics, Private Power and American Democracy,

and Robert Engler's The Politics of Oil. Additionally, Ray Reece credits advisory councils made up of directors of capital-intensive energy corporations with the capture of solar energy programs in the 1970's.[91]

In none of these actions by New York State were there provisions for citizen input or review of energy decision-making, until after antinuclear groups in the 1960's began to achieve some success in raising questions about nuclear power and in halting nuclear projects. In this sense, the Article VII and Article VIII legislation of the early 1970's could be viewed as an effort to contain citizen input within limits that would not pose a threat to utility plans to make the Empire State the Nuclear State, one theme in Chapter Three.

CORPORATISM

The end result of the conduct of load forecasting in ostensibly private hands is the reproduction of a profit-oriented energy policy. Because electric utilities effectively can create a demand commensurate with their supply, the opportunities are curtailed for reorienting energy policy toward new objectives such as end use considerations or renewable resources. An energy policy dominated by private bodies seeking to utilize that energy system for private profit is corporatist, in the sense that challenges to the system from outside groups--such as the citizen groups opposing plant siting--are met by the combined resources of private and public utilities and the State.

Originally, the Power Authority was created to provide the opportunity for citizens to obtain electric service independent of the private utilities. This would seem to contradict the claim of Walter Adams and Horace Gray that one of the little-recognized causes of monopoly is the lack of public organization to provide a necessary service to the public. Speaking of the development of utility monopoly in America in the late nineteenth century, these authors state:

> There were then available, however, few public institutions legally and financially competent to organize these industries on the scale required and to operate them as public services. The limited economic functions of government during our early history had not called for the evolution of complex institutions of this character.[92]

According to these authors, the vacuum left open by the lack of public institutions then is filled by a private monopoly.

The apparent contradiction between Adams and Gray's analysis and the existence of the Power Authority diminishes when the disparity of resources is considered. For instance, one area where the Authority was at a disadvantage relative to the investor-owned utilities was in load forecasting, because it lacked experience. But an even greater disparity in information and experience was evident in the area of atomic-energy development, where the Authority was prevented from entering the field until 1968. The resultant lack of institutional preparation was a significant factor in PASNY's arrangement to purchase the reactor from Niagara Mohawk Power Company for its Fitzpatrick plant and to have Niagara Mohawk

supervise the construction of that plant. By this time it was already evident that the Authority's ability to act as an effective yardstick of the private utilities in the area of nuclear power was prejudiced.

On a utility-industry level, the long lead time enjoyed by the investor-owned utilities in research and development of atomic energy--as well as the pooling of their resources in the Empire State Atomic Development Associates--afforded them tremendous advantages in formulating the framework for energy policy regarding nuclear power. Even more generally, the lack of a public mechanism to develop atomic power as a yardstick of the private utilities' efforts has meant a deprivation in developing an electric system operating on a principle other than that of private profit. What the accommodation between public corporations and private utilities means in a systemic sense, then, is that--in their failure to provide an alternative which considers end uses or other public objectives--these public bodies are serving to reproduce capital.

PASNY's acquiescence to IOU paramaters and methodology in load forecasting left without any formal institutional champion those interested in redirecting energy policy away from the assumption of economic growth at any cost. Similarly, its advocacy of nuclear power in general and its arrangement with Niagara Mohawk in the construction of the Fitzpatrick plant seriously hindered PASNY's role as a

yardstick of private operations. Its contracts favoring industrial customers and its outright refusal to consider expansion of service to some communities wishing to establish municipally-owned electric service not only contradicted its original mandate, but closed the door on PASNY's history as a champion of the public-power movement. Finally, by playing a leading role in the redefinition of its mandate toward the facilitation of industrial location in New York State, the Power Authority was beginning to establish itself as one of the significant players in corporatist planning.

The elements of corporatism are evident in the creation of the Power Pool; in the joint research and development programs; in the coordinated load forecasting; and in the studies calling for integration. Consequently, by 1970 there were appeals for dramatic changes in the regulatory movement in order to provide a legal framework for corporatism. Although conceived as a public power agency, PASNY moved to facilitate its own expansion and to accommodate corporatism.

CONCLUSION

The changes in the utility system in the 1960's helped in moving PASNY toward corporate planning. First, the development of commercial nuclear-power plants encouraged both public and private utilities to build larger plants--also providing a dynamic leading to higher load forecasts for the future. Second, up until 1970 electricity sales ran high, also leading utilities to over-forecast in the future. Third,

the development of the New York Power Pool assisted in the coordinating of load forecasting. In addition, PASNY's role in these events was to become demonstrably cooperative with the IOU's, by its membership in the Power Pool, and by its joint nuclear-plant deal with Niagara Mohawk. This left public-power advocates without the agency support they required. Finally, by seeking means to expand its mandate and by succeeding in doing so with nuclear and pumped storage plants, the Authority moved to establish itself as a lasting force in energy policy.

As the citizen elements of the public-power movement shifted direction toward objectives such as environmental protection, renewable resource development, and a "no-growth" philosophy, PASNY's policies remained geared toward expansion of its operations with seemingly little regard for other concerns. The most significant theme of the earlier public-power movement, gone from the scene by this time, was the support for home rule purported to have been a byproduct. Not only was PASNY moving away from this orientation, but it was assisting the investor-owned utilities in legislative initiatives to establish a very new relationship with the State regulatory authority--thus facilitating corporatist planning.

Chapter Two - ENDNOTES

[1] Daniel Ford, The Cult of the Atom, New York: Simon and Schuster, 1982, p. 45.

[2] Fritz F. Heimann, "How Can we Get the Nuclear Job Done?", The Nuclear Power Controversy, Arthur W. Murphy, ed. Englewood Cliffs, New Jersey: Prentice Hall, 1976, p. 92.

[3] Letter from Morris L. Cooke to Hon. Averell Harriman, June 27, 1955, Leland Olds Papers.

[4] Roscoe Martin, Water for New York, Syracuse: Syracuse University Press, 1960, pp. 206-207. Much of the following discussion is based upon material from Chapter VIII, "The Allocation of St. Lawrence Power".

[5] Ibid., p. 215.

[6] Ibid., p. 221. Governor Franklin D. Roosevelt's position on this issue was made clear in his introductory statement of the Power Authority enabling legislation. "I hope that the principle enunciated in this bill will be the forerunner of similar legislation for the development of other water power in this State, as well as in other States. I consider it an outstanding triumph in the battle of the people for the retention for themselves of the benefits of their natural water power resources instead of turning them over to private corporations for selfish exploitation. The safeguards in this bill, whereby every proposed contract is wholly open not only to public inspection, but also to approval by the Governor after careful investigation could only be circumvented in the future by a combination of complete lack of public interest plus a set of faithless public officials. There is no doubt in my mind that if controls that are honestly in the public interest and that provide really reasonable rates for electricity cannot be made, then the legislature and the Governor will take the next economically sound step for publically owned transmission lines and some new form of public or quasi-public distribution." (March 4, 1931, From Frank E. Smith, Conservation in the United States: Land and Water 1900-1970, New York: Chelsea House, 1971.

[7] Ibid., p. 210.

[8] The Hydropower-allocation controversy of the early 1980's is an excellent illustration of the consequence of the subordination of the enabling legislation's mandate for PASNY to develop the St. Lawrence River "... for the benefit of the people of the state as a whole."

[9] Martin, p. 219.

[10] Martin, p. 214. An investor-owned utility, Rochester Gas and Electric, also expressed opposition to the contract on the grounds that both industry and the municipalities were allocated too much power relative to their needs.

[11] Power Authority of the State of New York, Report of Testimony and Statements Presented at the Public Hearing on the Proposed Contracts with Reynolds Metals Co. Metropolitan Museum of Art Auditorium, New York, N.Y., November 15, 1956.

[12] Robert Engler described the production of aluminum cans as an example of "scandalous waste in present industrial practices," in The Brotherhood of Oil, New York: New American Library, 1977, p. 210. Barry Commoner used aluminum production as an example of the costs of displacement of natural materials by synthetic materials, citing that aluminum consumes 15 times more fuel energy than steel and 150 times more than lumber for its production. The Closing Circle, New York: Bantam Books, 1971, pp. 170-171.

[13] Martin, p. 226.

[14] New York Times, April 27, 1957, p. 20.

[15] PASNY Annual Report, 1954, p. 9.

[16] PASNY Annual Report, 1957, p. 12.

[17] Ibid., p. 13.

[18] Richard Hellman, Government Competition in the Electric Utility Industry, New York: Praeger, 1972, pp 94-96. John Burton later chaired the Governor's Committee on Power Resources, whose report ostensibly excluded PASNY from entering the nuclear-power field.

[19] PASNY Annual Report, 1958, pp. 7,8.

[20] PASNY Annual Report, 1959, p. 6.

[21] PASNY Annual Report, 1960, p. 4.

[22] Ibid., p. 5.

[23] The Future of the Power Authority of the State of New York, Vol. I, New York State Legislative Commission on Science and Technology, May, 1984, pp. 3-4.

[24] PASNY Annual Report, 1963, p. 7.

[25] See John G. Fuller. We Almost Lost Detroit. New York: Reader's Digest, 1975; Amory Lovins. Soft Energy Paths. Cambridge: Ballinger Publishing Co., 1979; and Gerald Garvey, Nuclear Power and Social Planning. Lexington, Mass.: D.C. Heath, 1977, especially Chapters 6-8.

[26] Richard Harold Longshore, The Power Authority of the State of New York: Accountabilty and Public Policy. Unpublished Ph.D. Dissertation, Syracuse University, 1981, p. II-5.

[27] New York State, Governor's Committee on Power Resources, "Report to Governor Nelson A. Rockefeller," December 15, 1959, p. 15.

[28] Ibid, p. 6.

[29] "Regional Power Grid Plan", Public Power, January 1958, p. 22.

[30] Ibid.

[31] "Giant Power - Problem and Solution", Leland Olds Collection, Franklin D. Roosevelt Library, unpublished manuscript, August 1, 1960.

[32] Crawford also was the co-author, with William E. Mosher, of Public Utility Regulation, in which it was argued that the electric utilities consistently had opposed the creation of regulatory bodies and the extension of their powers. New York: Harper, 1933, p. 551.

[33] Ibid, p. 23.

[34] PASNY Annual Report, 1960, p. 6.

[35] PASNY Annual Report, 1961, p. 11.

[36] Power Authority of the State of New York, Atomic Power, March 16, 1961, p. 3.

[37] Ibid, p. 4.

[38] Power Authority of the State of New York, New York State Future Power Development, December 31, 1962, p. 10.

[39] New York State. Office of the State Comptroller. Division of Audits and Accounts. Review of Financial and Select Operating Practices of the Power Authority of the State of New York. (1983), p. 22.

[40] Marc Messing, H. Paul Friesema, David Morell, Centralized Power, Cambridge, Mass.: Oelgeschager, Gunn and Hain, 1979, p. 191.

[41] New York State, Public Papers of Governor Nelson A. Rockefeller for 1968, "Message Relative to Electric Power," May 6, 1968, pp. 209-213.

[42] Otis Graham, Toward a Planned Society, New York: Oxford University Press, 1976, p. 282.

[43] Managerial Long-Range Planning, George A. Steiner, ed. New York: McGraw-Hill, 1963--statement attributed to Charles E. Sumner, pp.7-8.

[44] Andrew Shonfield, Modern Capitalism, London: Oxford University Press, 1965, pp. 45-46.

[45] H. H. Gerth and C. Wright Mills, From Max Weber, New York: Oxford University Press, 1946, p. 231: "...one has to remember that bureaucracy as such is a precision instrument which can put itself at the disposal of quite varied--purely political as well as purely economic, or any other sort--of interests in domination."

[46] Kenneth Sayre, Values in the Electric Power Industry, Notre Dame: University of Notre Dame Press, 1977, pp. 289-90

[47] Sayre, p. 289.

[48] Brief Presented to the Public Service Commission by the following Intervenors in Opposition to the 1976 Rate-Increase Application by Central Hudson Gas and Electric Corporation: Maurice D. Hinchey, Hyman Ruchlis, Louis Fagon), pp. 21-22.

[49] Messing, Friesema, and Morrell, p. 25.

[50] Messing, Friesema, and Morrell, p. 25. [my italics].

[51] Karl Marx, Capital, Vol. I. New York: Vintage Books, 1977, pp. 1060-1066.

[52] John Kenneth Galbraith, The New Industrial State, Boston: Houghton Mifflin, 1967, p. 16.

[53] Alfred Kahn, The Politics of Regulation, Vol. II, New York, John Wiley, 1971, pp. 50-54.

[54] Peter Pringle and James Spigelman, The Nuclear Barons, New York: Holt, Rinehart and Winston, 1981, p. 343. These authors state that "each of the American enrichment plants in the 1960's was consuming as much electricity per year as the City of New York."

[55] Messing, Friesema, and Morrell, p. 48.

[56] "Loan Guarantees Cut In Energy Bill", New York Times, December 12, 1975, p. 1. This budget also provided $159.5 million for solar energy, $429.4 million for fossil fuels, and $506 million for nuclear reactors.

[57] John Kenneth Galbraith, Economics and the Public Purpose, Boston: Houghton Mifflin, 1973, pp. 142-143.

[58] Erwin Hargrove and Paul Conkin, eds. TVA: Fifty Years of Grass-Roots Bureaucracy, Chicago: University of Illinois Press, 1983, p. 125.

[59] TVA: Fifty Years of Grass-Roots Bureaucracy, p. 133.

[60] Harry M. Caudill, "The Rape of the Appalachians", Atlantic Monthly 209 (April 1962), pp. 37-42. See also Marc Roberts and Jeremy Bluhm, The Choices of Power. Cambridge: Harvard University Press, 1981, pp. 63-118.

[61] TVA: Fifty Years of Grass-Roots Bureaucracy, p. 127.

[62] Walter Adams and Horace Gray, Monopoly in America, New York: MacMillan, 1955, p. 13.

[63] Ibid., p. 2.

[64] Richard J. Barnet and Ronald E. Muller, Global Reach, New York: Simon & Schuster, 1974, pp. 129-133.

[65] PASNY Annual Report, 1962, p. 8.

[66] An extensive treatment of this case is John G. Fuller's, The Gentlemen Conpirators, New York: Grove Press, 1962. See also John Ed Pearce, "The Creeping Conservatism of TVA", The Reporter 26 (January 4, 1962): 32.

[67] PASNY Annual Report, 1963, p. 16.

[68] PASNY Annual Report, 1967, p. 6.

[69] Edward Berlin, Charles Cichetti and William Gillen, Perspectives on Power, Cambridge: Balinger Publishing, 1974, p. 74.

[70] Ibid., p. 76.

[71] Ibid., p. 74.

[72] Centralized Power, p. 53.

[73] Ibid., p. 54.

[74] Niagara Mohawk Power Corporation, Annual Report, 1967, p. 11.

[75] Adams and Gray, p. 146.

[76] Congressional Record, July 23, 1954 p. 11154: Adams and Gray, p. 149.

[77] Adams and Gray, p. 154.

[78] Adams and Gray, p. 154, author's italics.

[79] Adams and Gray, p. 153.

[80] Atomic Power and Private Enterprise, Joint Committee on Atomic Energy. 82nd Congress (2nd Session) Washington, 1952, p. 45.

[81] Ibid., pp. 45-46.

[82] Ibid., p. 49.

[83] Ibid., p. 56.

[84] Taken from "Message of the Governor in Relation to Use of Atomic Energy for Peaceful Purposes and Atomic Energy Law and Establishment of Office of Atomic Development", February 1959, p. 3.

[85] Office of Atomic Development, Annual Report--1959, p. 6.

[86] Office of Atomic Development, Annual Report--1961, p. 8.

[87] Office of Atomic Development, Annual Report--1959, p. 6.

[88] Regarding the health and safety questions associated with nuclear power, the fact that these are not the focus of discussion here does not mean that the author considers them to be insignificant. However, the debate over the risks of nuclear power compared to other fuel sources has been conducted within a framework of economic analysis that disregards the incentives for utilities to build nuclear power

plants. By removing the incentives to build centralized large-scale power plants and also by removing the subsidies for the nuclear industry, the health aspects of the nuclear-power debate would be magnified because of the exposure of the true costs of this energy technology. Concerning the question of culpability for the propagation of nuclear plants, the incentives built into utility finance under State regulation and the federal incentives noted above deserve the greatest attention.

[89] H. Peter Metzger, The Atomic Establishment, New York: Simon and Schuster, 1972; David Lilienthal, Atomic Energy: A New Start, New York: Harper and Row, 1980; David Pringle and James Spigelman, The Nuclear Barons, New York: Holt, Rinehart and Winston, 1981.

[90] Lilienthal, p. 17.

[91] A. Lee Fritschler, Smoking and Politics, New York: Meredith Corporation, 1969; Grant McConnell, Private Power and American Democracy, New York: Knopf, 1966; Robert Engler, The Politics of Oil, Chicago: The University of Chicago Press, 1967; Ray Reece, The Sun Betrayed Boston: South End Press, 1979. Morton Mintz and Jerry S. Cohen, Power, Inc., New York: Viking Press, 1976; Henry Etzkowitz and Peter Schwab, Is America Necessary?, New York: West Publishing, 1976. See also, Advisory Committees, Hearing Before a (Legal and Monetary Affairs) Subcommittee of the Committee on Government Operations, House of Representatives, 92nd Congress, 1st Session (Washington: U.S. Government, 1972) November 4, 1971

[92] Adams and Gray, pp. 186-187.

III. THE LEGISLATIVE FRAMEWORK FOR PLANNING

Although there were movements in the direction of corporatist planning as early as the Burton Report in 1959 and the creation of the Empire State Atomic Development Associates in 1960, the pivotal event leading to the restructuring of the entire regulatory environment to facilitate corporatist planning was the Northeast Blackout in November, 1965. The response to this blackout was the placement of system reliability and expansion of generating capacity at the very top of the priorities for regulators of the electric system. In addition, it provided further evidence for the Power Authority's argument that its development plans should not be limited to hydroelectric facilities.

The crux of the argument here concerns the role considered appropriate for citizen intervenors to play in the expansion of generating capacity and in the maintenance of system reliability. Obviously, capacity expansion raised issues such as the concern for environmental degradation, the distribution of costs for the expansion, and the possible threats to individual property owners. These and other factors led to opposition from community and environmental groups. Under existing regulatory procedures in New York State, opposition groups could have recourse to several methods for stopping or delaying construction of new power-generation and transmission facilities. Land-use zoning laws

often were used to frustrate utilities, as were local environmental permit regulations.

On a national level, there were efforts throughout the 1970's to streamline the licensing processes for generating plants. Coming from the Nixon, Ford, and Carter Administrations, all of these attempts at streamlining were unsuccessful.[1] However, licensing became centralized in several states during this period. Furthermore, some states--such as Maryland--developed land-bank sites for electric utilities.[2] New York State's response to the obstruction of utility expansion plans by local zoning regulations was similar.

By 1970 the Rockefeller Administration was pushing for the licensing process to be streamlined, both for generation and transmission facilities. Former Public Service Commission Counsel Peter Schiff indicated that with the growth of the environmental movement and with the increased frustration of the investor-owned utilities' plans due to municipalities' opposition, the investor-owned utilities desired a mechanism to override those zoning laws.

Schiff noted further that as Chairman of the Federal Power Commission, Joseph Swidler had wanted the IOU's to deal jointly on more issues in order to promote more rational planning and an improved transmission grid. In addition there was "an implicit assumption that there would be growth"[3] on the part of the IOU's and the regulators, so there was no

presumption at the time that there needed to be independent checks upon utility forecasts. Consequently, as part of his legislative program, Rockefeller introduced some far-reaching changes in the regulatory process.

First, there would be a reorganization of the PSC, with Joseph Swidler as the new chairman. Second, Article VII of the Public Service Law provided for a new licensing process for major transmission facilities, which would override all local zoning ordinances relative to those projects. Third, the Public Service Commission was authorized to encourage the utilities to submit long-range plans for electric-system development. In effect, the PSC was encouraging utility planning of the electric system.

But the citizen-action environment during this period prompted the inclusion of provisions for citizen intervention in the transmission-siting process. According to Governor Rockefeller's approval memorandum, Article VII would both

> Insure that the ecological and environmental impacts of these facilities are considered and minimized; and
> Guarantee to citizens of the locality where such facilities are to be located the right to participate in the proceedings to determine the location before sites or route preparation has begun and any irreversible action has been taken. A similar right of participation is granted to non-profit groups with an interest in the property such as conservation groups and groups formed to protect national beauty.[4]

While at this time the electric-system planning legislation did not specifically provide for citizen intervention in the process, there were implicit connections

between the issues in the Article VII proceeding and the objectives of the electric-system planning process. Perhaps the most prominent was the requirement that the PSC could approve a transmission facility only if it determined the "basis for the need for the facility."[5] The question of need for transmission facilities--and, later on, for generation plants--was a critical element of the struggles between utilities and citizen groups throughout the decade. In fact, the institution of the Article VII process itself can be seen as a response to the frustration experienced by the utilities and the PSC due to the delays caused by community groups' use of zoning ordinances, and to local permit requirements forestalling construction of transmission facilities.[6]

Further, the greater attention paid to the Article VII siting process, evidenced by the governor's request for the development of a similar process for generation plants (Temporary State Commission on the Environmental Impact of Major Generation Facilities) indicates that the PSC mandate for the utilities to engage in planning should be considered an adjunct to the siting process. State Energy Office Counsel Stanley Klimberg--at the time working for the PSC--claims that the basic impetus for the enabling legislation that established the original planning process (149-b) was not to engage in long-range planning, but was to give the PSC the opportunity to look at system expansion on a statewide basis--

rather than simply looking at expansion facility-by-facility.[7] Apparently, the primary objective of the 149-b legislation was to provide a vehicle for the PSC to get information from the utilities concerning their plans for generation and transmission expansion. Klimberg stated that while the 149-b process should have been expected to result in an independent State forecast of electricity need, the PSC was not given a clear legislative charge to do so. Only after a few years of experience did the 149-b process become a vehicle for examining energy-planning issues.

Former PSC Counsel Peter Schiff argued that the utilities had not originally conceived of the 149-b process, or of much of Article VII; and that these measures engendered some opposition from them. While the objective of the 149-b process, from the PSC's point of view, was to get more cooperation between the utilities, the "utilities were very reluctant to get involved with this, on a cooperative basis."[8] The divergence of interests between the upstate IOU's--who did not need the PSC's construction approval prior to Articles VII and VIII--and the downstate utilities, led by Con Edison, resulted in disagreements between the IOU's concerning Article VII's desirability. In addition, the prospect that the PSC might want to make choices between competing projects offered by utilities caused some reluctance to cooperate with the 149-b process.

Investor-owned utilities compete against each other on a

routine basis to attract capital investment. That is why utilities must pay constant attention to their dividend's attractiveness to investors. A utility, like any other company, can experience a decline in investor confidence, increased borrowing costs, and corresponding financial constraints if it fails to attract capital as well as other corporations' investments. Despite these sources of tension, the external threats posed by citizen intervenors and by advocates of more stringent government regulations unified the utilities into engaging in systemwide planning.

How was this legislation enacted, given the ambivalence of the utilities? A contributing factor was the prevailing view that electrical demand would continue to accelerate throughout the 1970's, as it had in the 1950's and 1960's. This pro-growth environment affected the debate over electric-system regulation and planning in several important ways. First, it helped to alleviate differences between the IOU's because of the assumption that there were abundant opportunities for all utilities to expand rate bases through additional construction of generation plants and transmission lines. Second, with the statewide reserve margin at only 12%, the Public Service Commission was under tremendous pressure to increase system reliability by encouraging new construction. (Incidentally, the pro-growth mentality was so prevalent that the PSC was not overly concerned with checking and questioning the utilities' forecasts of electrical demand as rationale for the

construction.) Third, citizen groups did not have a prominent voice in fashioning the enabling legislation for the 149-b process. Since the implicit assumption was "that there would be growth, and the question was how to plan for this growth,"[9] the impetus clearly was in the direction of facilitating the construction of new plants and transmission lines.

A related approach to answering the question concerning the PSC's empowerment to conduct planning comes from John Kenneth Galbraith:

> The state ... will take steps to effect the coordination of which the planning system is incapable. It will impose overall planning on the planning system.[10]

Obviously, once the planning process is put in place, any conflicts which appear to be insoluble from the utilities' perspective may lead the utilities to attempt to circumvent that process if it threatens their autonomy. The outstanding example of this thinking is embodied in the Article VII provision for the override of municipal-zoning laws. This public planning provision was in immediate contradiction with the 1920's public-power movement objective of reinforcing home rule; and this provision also was the most significant area of agreement between the IOU's within the Article VII legislation. As former State Senator Thomas McGowan described the situation, there was felt to be a general crisis after the 1965 Blackout, within which the Public Service Commission was expected to be the guarantor of electrical power for the

State's needs. The municipalities' frustration of utility plans to construct new and higher- voltage lines--along with the fact that transmission lines were contemplated to go through sensitive areas such as the Adirondacks--led to the push for the override provision. McGowan noted that the utilities gained from this provision because they had been running into problems in getting approval for their projects.[11]

The Power Authority's position on both Article VII and the 149-b process was one of opposition "to all extensions of authority over them. They wanted to be exempt from all laws and regulations applied to the private companies."[12] In Senator Dale Volker's words, the Authority had "great misgivings about it [149-b process]. They were afraid of anything that would diminish their power."[13] The Authority consequently provided information for the 149-b hearings very reluctantly, and were enjoined by the PSC to give more information. In addition, PASNY maintained its exemption from the Article VII requirement to prove need for its transmission projects until the aftermath of the Massena-Marcy transmission line controversy. Thus, despite its origins as a champion of the public-power movement, the Power Authority by this time consistently was opposed to any extensions of public control over its operations--control which might threaten its autonomy.

The issue at hand concerns whether the passage of the

Article VII and 149-b legislation signalled the beginning of a new relationship between the utilities and the State as a regulatory authority. Given the increasing links between the IOU's in the New York Power Pool and in various research-and-development efforts, it seems possible that the utilities would have been more prepared to cooperate in joint efforts at electric-system planning. And as Gabriel Kolko argues in The Triumph of Conservatism, the business community's objective normally is to establish the conditions for competition to be transcended--i.e. to produce stability. While there was agreement on the idea that the municipal-override provision would produce stability by establishing clearer limits upon citizen intervention in transmission siting, the vagueness of the 149-b statute generated concerns that ultimately served to undo it in 1978. In order to elaborate on this point, it is necessary to consider the evolution of the 149-b process, particularly in conjunction with Article VIII of the Public Service Law.

Article VIII of the Public Service Law was passed in 1972 on the recommendation of the Temporary State Commission on the Environmental Impact of Major Generation Facilities. Article VIII, like Article VII for transmission-line siting, provided for a one-stop process for siting of major generation plants. Further, it contained the same provision for the override of municipal zoning codes.

Many of the individuals in the regulatory community

considered Article VIII to be the key piece of legislation in New York State's electrical-system evolution because of the provision that utilities would have to prove the need for these projects before receiving PSC approval. Richard King of the Public Service Commission claimed that the IOU's initially embraced the Article VIII process because it removed the need to get multiple permits, and also because it obviated the possibility of applying the National Environmental Policy Act. However, as the proceedings unfolded, in a number of cases the utilities became increasingly frustrated--particularly with regard to the question of establishing need for the plants.[14] Fred Levine of the Consumer Protection Board noted that the Long Island Lighting Company and New York State Electric and Gas changed their statement on justification of need for the Jamesport project in the midst of the proceeding. Indeed--as electrical demand declined with the oil shocks of 1973 and 1978--the issue of forecasting loomed large as a threat to the utilities' construction plans. However, the decline in demand either was not reflected or was reflected grudgingly in utility forecasts throughout the decade, making the Article VIII hearings that much more contentious in nature.

The Interim Report of the Temporary State Commission on the Environmental Impact of Major Public Utility Facilities clearly indicates that the impetus for Article VIII came because of the need for electric-system growth. Witness this

passage in the opening of the Report:

> Public Service Commission Chairman Joseph P. Swidler informed the Commission that the power industry is one of the nation's great growth industries, with the production of power having a tendency to double, from an already very large base, every ten years; that the rate of power growth exceeds the rate of population growth; that the problem of supplying adequate power could not be avoided by suggesting that people choose either more power or the environment, or that people restrict their choice of consumer goods and discipline themselves to go without air conditioning and other electrical appliances; that additional power is needed just to light the new homes which will be built in the coming decades; and that power growth is required if we are to maintain economic growth.[15]

The Final Report of the Temporary Commission, issued three months later, projected growth in requirements for electric-supply capability of 23,000 mw from 1970-1980 and 41,000 mw from 1980-1990. In terms of power-plant siting, the Final Report noted that there "would appear to be a need to qualify at least six or seven new steam station sites, perhaps half upstate and half downstate over the next twenty years if each site can be planned to produce 4,000 to 5,000 mw of power."[16] Given the fact that the largest generation plants contemplated at the time were in the 1,000-1200 mw range, this would mean that those sites would be designed as energy "parks", with perhaps 4-6 plants at each site. Further, if the energy "park" idea were not feasible due to the environmental impact, the authors of the Final Report speculated that "dispersion based on, say, a limit of 1,000 MW

at each location would require a greater number of sites over the next twenty years, perhaps twenty-five or thirty, if not more, and, therefore, probably most of these upstate."[17] Plans calling for the construction of large generation plants in these numbers were what fueled the opposition from environmentalists and community organizations.

It is important at this time to note that these projections of electrical-demand growth--and, consequently, of the need for such massive expansion of the electrical system--were based largely on extrapolations from previous trends. It appears that the Temporary Commission's projections outstripped even those of the Atomic and Space Development Authority of New York State and of the Power Pool for the same time frame--indicating both that State government officials felt pressured to take measures to alleviate what they perceived as a crisis situation, and that the State government did not have an effective load-forecasting capability independent of the utilities.

The Commission subsequently offered an array of five proposals to deal with the generating-plant-siting issue. The first would make the PSC the sole responsible agency, with the Department of Environmental Conservation (DEC) and the local government having advisory roles. The second proposal required approval by the PSC, DEC and a three member board comprised of representatives from the PSC, the DEC, and local government. This proposal also provided for overrule of local

law upon agreement of two of the three board members. Third, the Commission offered a proposal to consolidate all State requirements into three proceedings: one by the PSC, one by the DEC, and the third by local government. Also included here were measures to ensure effective citizen participation, including assignment of counsel by the Attorney General and payment of costs to parties who successfully participated. The fourth proposal consolidated all State requirements into one PSC-DEC permit proceeding, with participation by local municipalities and counties. This proposal included the same provisions for citizen participation, and permitted the override of local law only when it was "unreasonably restrictive in view of the existing technology." The final proposal made the PSC the sole responsible agency, but required the PSC to meet all State and local requirements in the absence of a court order to the contrary.[18]

The Temporary Commission concluded that despite the endorsement by five of six of its legislative members of equal authority for local government, the DEC, and PSC, "controversy and complexity among proponents of power; advocates of local government and protectors and preservers of natural resources have frustrated this feasibility. 'Storm King' and 'Astoria' were the 'un-proving' grounds."[19] Consequently, the preferred approach was Proposal Four, combining the provisions for citizen participation with a one-stop permit process where local laws could be overruled. The expendable aspect of

energy-policy formulation thus became the principle of home rule, although it was not relinquished without opposition.

When the enabling legislation was introduced in the State Senate by two members of the Temporary Commission, its stated purpose was

> ...to provide for the expeditious resolution of all matters concerning the location of major steam electric generating facilities presently under the jurisdiction of multiple state and local agencies, including all matters of state and local law, in a single proceeding in which the policies heretofore described shall apply and to which access will be open to citizens, groups, municipalities and other public agencies to permit them to participate in these decisions.[20]

The preferred approach of the Temporary Commission was revised to require the New York State Board on Electric Generation siting and the Environment to review applications for major new generating facilities. This Board was to be comprised of the Chairman of the PSC, the Commissioner of the DEC, the Commissioner of Health, the Commissioner of Commerce, and an ad hoc member from the affected region, to be appointed by the governor. The Siting Board was empowered to act favorably on an application contrary to local law by refusing to apply

> ... any local ordinance, law, resolution or other action or any regulation issued thereunder or any local standard or requirement which would be otherwise applicable if it finds that as applied to the proposed facility such is unreasonably restrictive in view of the existing technology or the needs of or costs to consumers whether located inside or outside of such municipality.[21]

Despite the opposition of some Senators on the grounds that the legislation provided inadequate measures for judicial review, and was designed simply to circumvent local zoning and home rule, the Senate approved the measure by a vote of 38 to 16.

With the passage of Article VIII and the existing Article VII law regarding transmission lines, the mechanisms were in place for the State to override local zoning laws, thus violating the principle of home rule and severing one of the ideals of the public-power movement. Also, the same legislation clarified and strengthened the PSC's role in electric-system planning. Although at this early stage the PSC's interest in long-range planning appeared mainly as a means to facilitate plant siting, the public concern for the environment led the PSC inexorably to become interested in research-and-development expenditures and to become more inquisitive about and critical of the utilities' load-forecasting methodologies. New York City EPA Administrator, Jerome Kretchmer, expressed concern about the State's role in dealing with these issues in an intervenor memorandum in opposition to Article VIII. Kretchmer argued that Governor Rockefeller was pushing for this legislation "to provide a means for building as many power plants, as fast as possible, while riding roughshod over the objections of conservationists and local interests alike, whether or not these objections are valid."[22]

Kretchmer further argued that this legislation was an example of Governor Rockefeller's abrogation of his responsibility to develop a comprehensive energy policy for New York State. At the core of this claim was the utility industry's projected 450% increase in demand for the period 1965-1990, based not upon "increases in population but to per capita increases in consumption."[23] Kretchmer then went on to call for the establishment of a State commission of independent experts to formulate a comprehensive energy policy, to deal with issues such as (a) future energy needs, (b) methods for reducing demand, (c) ways to protect the health, safety and environment, (d) increasing system reliability, and (e) developing criteria for location of facilities.[24]

Despite these criticisms, the backbone of the State's energy policy by 1972 was found in the Article VII and VIII legislation, leaving the PSC largely responsible for formulating a policy through the competing claims of utilities, community groups, and environmentalists, during the hearings concerning project-construction proposals.

The question arises of the extent to which it was anticipated that the PSC would develop an independent forecasting capacity out of the long-range planning authority granted in Section 174(b) of Article VIII. As mentioned above, Stanley Klimberg suggested that 149-b merely was an adjunct to the legislation, and provided a means to facilitate

the hearing process. Peter Schiff countered, however, that the idea behind the 149-b process was to get more cooperation between the utilities. The utilities were reluctant to get involved with this on a cooperative basis because of the difference in their interests with regard to power-plant construction. At the time, the New York Power Pool was not engaged in long-range planning, and the member utilities were reticent about exposing their long-term construction plans to public scrutiny.

It is clear then that the utilities were not interested in contributing to the development of a public electrical-system planning process, especially not one that was to provide an independent load forecasting assessment. Because of the threat of brownouts during the late 1960's and early 1970's, the Public Service Commission under Joseph Swidler became committed to improving system reliability through establishing more effective transmission inter-ties between all of the utilities' networks. With the planning process initiated under Section 149-b of Article VIII, the ingredients were in place for transmission and generating-plant construction to be coordinated on the basis of a statewide grid, with minimal transmission loss and presumably optimal opportunity to minimize environmental damage.

At the same time, the PSC leadership under Swidler was concerned about the lack of quality of the utility research-and-development programs, and consequently sought to expand

the 149-b hearings to include utility testimony on those programs. Thus, it appears that the impetus for the changes in the electrical-system regulatory structure in the direction of planning were not generated principally by the utilities, but by environmental groups and the regulators themselves. The impact of the changes wrought by Article VII and VIII will be examined through case studies of the proposed Sterling and Cementon nuclear plants in Chapter Four, and of the Massena-Marcy transmission line in Chapter Five.

While the impetus for the planning provisions of the Article VIII legislation may not have come from the utilities, they shaped significantly the actual process as it developed. Between the enactment of Article VIII and its revision in 1978, the members of the New York Power Pool communicated their views on the need for revision of the 149-b process in every series of hearings, and filed formal sets of written comments on the Article VIII siting process either with the PSC or with the Legislature. Several issues became bones of contention for the utilities, the most notable of which were: (1) the requirements for Article VIII applications to include complete data on two sites for a proposed facility; (2) the lack of any pre-hearing analysis and determination by the PSC and DEC as to the merits of the application; (3) the lack of a pre-hearing conference to identify issues and make the proceeding formal; (4) discrepancies between federal and State regulators on issues such as emission standards; and (5) the

absence of a specified time frame for the hearings and for final determination on the application.

The utilities greatest' problem with regard to the Article VIII siting process arose in providing the rationales for the need for the proposed facilities, especially during the years of sharp decline in consumer demand for electricity after the 1973 OPEC oil embargo. The upshot of these criticisms of the Article VIII process is that the utilities began to search for means to circumvent the restrictions they felt impinging upon them from this siting process, while environmental and community groups looked for means to further expand their influence as intervenors in the siting process. The deadlock that developed between the utilities and their opponents led to the creation of an entirely new planning process in 1978--the State Energy Master Plan.

From the perspective of the investor-owned utilities, the revision of the PSC in 1970 and the mandate to plan under Section 149-b of Article VIII were impositions upon their autonomy. This is not to suggest that the IOU's did not have plans, or did not have planning processes--but rather that these new requirements produced threats to the IOUs' practice of keeping their plans private.[25] Secondly, the attitude of the Swidler PSC was strongly in favor of utility cooperation, particularly in the area of strengthening the transmission grid. The IOU's looked askance at this policy because of its being identified with the public-power notion of a national

grid. This is probably the reason why the New York Power Pool came together so quickly after the 1965 Blackout. However, the trade-off for the utilities were the measures in the Article VII and VIII legislation which granted the Siting Boards the authority to override restrictive municipal legislation. Thus--in this bloc of legislation--what was lost to the IOU's in terms of their capacity to keep their plans private was balanced by their gains in autonomy from what they perceived as restrictive municipal legislation. But despite the municipal-override provisions, the Article VII and VIII hearings became more visible to public scrutiny because of the one-stop nature of the licensing procedure.

The Power Authority's position with regard to the regulatory-system reforms and to Article VII and VIII illustrates clearly that it was not supportive of measures to expand the intervention of citizens groups in decision-making on energy policy. State Senator Dale Volker had stated that the Power Authority had great misgivings about the Article VIII process, particularly with regard to Section 149-b. He noted, in general, that PASNY was afraid of anything that would diminish its power--taking the position that because of its bond covenants, it should be the one to decide about future construction needs. Thomas McGowan, former Chair of the Temporary Commission on Siting of Major Generation Facilities, argued that with regard to proving need for projects under Articles VII and VIII, the Power Authority's

response was its desire to be exempt from all laws and regulations applied to the private companies and in opposition to all extensions of authority over it.

One former PSC Counsel and legislative staff member noted that PASNY never has been a completely independent actor in the energy policy area, but consistently was jealous of threats to its bond covenants. Consequently, PASNY resisted the extension of the Article VII and VIII requirements to justify need for its transmission and generation projects. Since the determination-of-need requirement was central to the conflicts with which the Power Authority became embroiled in its Cementon nuclear plant and its Massena-Marcy 765 KV transmission line projects, this issue will receive more detailed attention below.

The Power Authority's position on electric-system planning under the 149-b provision of Article VIII is clearly stated in a memorandum from then-Chairman James Fitzpatrick to the legislature in 1975. Fitzpatrick recommended that the Authority not be made subject to Section 149-b "to the same extent and in the same manner as the private utility corporations."[26] Because of its unlimited service area, the Authority Trustees argued that they would have to duplicate the work of the entire Power Pool in submitting a load forecast under Section 149-b. Also, the Trustees claimed it had "no reason to forecast growth except in relation to projects authorized in its enabling acts"[27] since it lacked

further legislative authorization. It would appear that the lack of a delimited service area with an identifiable consumer population did act as a handicap to the Authority in complying with the requirements of the 149-b process. Perhaps the Power Authority's movement toward identifying with industry as its constituency was an outgrowth of the expanded State role in energy forecasting and planning.

Despite their reluctance to be included within the 149-b process in the same capacity as the IOU's, the Authority Trustees expressed support for the concept of electric-system planning and stated their belief "that the Pool is the proper vehicle for such planning."[28] Further--disagreeing with criticisms of the PSC staff that Power Pool members might be forecasting based upon assumptions which were in conflict with each other or with the PSC--the Authority recommended this amendment to Section 149-b:

> Each electric corporation [The members of the New York Power Pool] shall prepare and submit annually to the department, at a public hearing upon such notice and at such time and place as the department shall determine, its [a single comprehensive] long-range plan for future operations drawn pursuant to regulations issued by the commission.[29]

Thus, the Authority embraced the notion of having the Power Pool formulate a single in-house long-range plan, but was unwilling to perform and present a load forecast for the State independent of the investor-owned utilities in the Power Pool. And because the Authority was not compelled to submit a detailed independent long-range plan of its projected growth

in operations, citizen intervenors and community groups involved in Article VII and VIII hearings on proposed projects were deprived of having a clear benchmark of possible changes in PASNY load forecasts. As with the determination-of-need requirement in Articles VII and VIII, the impact of this lack of information will be discussed in Chapters Four and Five.

THE RISE AND FALL OF PUBLIC SERVICE COMMISSION PLANNING

The initial restructuring of the PSC in 1970 and the enactment of Section 149-b of Article VIII in 1972 came during a crisis of excessive demand for electricity in New York State. Consequently, the objectives of those measures were to increase the reliability of the transmission grid and to help to ensure, through efforts of the regulatory commission, that utilities would be able to proceed with construction plans sufficient to meet the crisis. Speaking from this perspective, Joel Blau of the Consumer Protection Board characterized Article VIII as a measure whose main thrust was to "accelerate, not rationalize, the building of generation plants."[30]

Because of the demands of environmentalists for greater consideration of environmental impacts; of consumer groups for relief from increased rates; and of community groups who were concerned with health hazards and other quality of life issues, provision was made for systematizing citizen intervention in the processes for siting and public review of the long-range plans. As a result, in the implementation of

those processes, some zealously guarded prerogatives of the utilities were challenged and opened up to public scrutiny--the most significant of which was in the area of load forecasting. Thus, when demand for electricity declined precipitously in the aftermath of the OPEC oil embargo, the utilities felt increasingly hard-pressed to justify their construction plans. Ultimately, this led to the revision and transfer of the planning process to the State Energy Office, as well as to significant revision of Article VIII.

As noted above, it is not clear whether the 149-b process, as originally conceived, was designed to result in a completely independent State forecast of electrical demand. Peter Schiff commented that the PSC struggled with the 149-b process for a few years, because "after we had it, we didn't know quite what to do with it."[31] He did feel, however, that the PSC definitely was headed in the direction of an independent State demand forecast through the 149-b hearings; but that this objective was frustrated by the hearing process. Nevertheless, he argued that the "art of forecasting became developed during that time."[32]

A former PSC staff counsel agreed that the PSC did not receive a very specific legislative charge for the 149-b process, but that the commission's objectives about what to look at in the hearings became more clear over time. Further, he argued that an independent State forecast of electrical demand "should have been" the objective; but that this was not

the only, or even the most significant, area in which the PSC needed autonomy from the utilities. For instance, it was his view that the PSC was much more dependent upon information from the investor-owned utilities and contractors with regard to the projected costs of new plants than it was for load forecasting. He pointed as an example to the inability of the Commission to reach a definitive conclusion regarding whether coal or nuclear generation should be the preferred mode in terms of cost of generation. Despite having a separate proceeding on this one issue and the fact that this issue was examined in every Article VIII proceeding, the Opinion was inconclusive.

The consequence of the PSC's lack of independence was that the Article VIII hearings became deadlocked, with neither the utilities nor their opponents feeling satisfied that they were protected from threats by the other. Since the utilities were not getting approval for their projects, they grew discontent with the PSC's management of the planning and siting hearings. In Stanley Klimberg's words, the utilities "could not live with the unpredictability of the situation with the PSC."[33]

This sentiment was echoed by Howard Shapiro, General Counsel of the Energy Association of New York State. Speaking about the needs of utilities with respect to energy planning by the State, Shapiro stated,

> We want the State to give us a degree of certainty. We want the State to put its credibility where its

> mouth is. We want a clear agreement by the State that if they agree the plant is needed, we can get the money for it.[34]

As was the case at the turn of the century, the regulatory framework needed to produce sufficient stability in order for the utilities to operate. When the PSC did not appear to be capable of this, the utilities became united in an effort to alter the regulatory framework once again.

The utilities perceived the 149-b process as one that was endless, was highly litigated, and still was ineffective. Howard Shapiro noted that "the industry, with or without formal State proceedings, is doing the planning on its own. It needs to. It's a requirement for us. It's our job. We would do it anyway."[35] Given that reality, the utilities viewed 149-b as an unnecessary hindrance because it generally did not produce clear directives or conclusions, and even then "nothing was binding--there was no requirement that anything be done. It had no application to Article VII and VIII."[36]

Yet despite the dissatisfaction with the existing process, one utility spokesman did not feel there was an urgent need to transfer the planning process out of the PSC. Ray Hull of Niagara Mohawk Power Company explained that the move came about because the PSC's management of the planning process was not meshing with the new Democratic (Hugh Carey) Administration. When asked about the weaknesses of the 149-b process, his reply was that there were "no particular problems

per se."[37] Probably the best explanation of these conflicting views on the effectiveness of the 149-b process is that since the instability of 149-b was the IOU's greatest concern, any extensive change of that process--either through reform or through transfer--might only add to the instability.

The transfer of jurisdiction over electrical-system planning cannot be understood simply within the context of the stalemate between the utilities and their opponents. The second oil shock of the decade led to a sharp rise in gasoline prices, which produced a desire on the part of the governor to establish energy planning in New York State. Of course, this would imply an expansion of planning jurisdiction beyond the electrical-system planning being performed under 149-b by the PSC. The significant question here concerns how that transfer affected the seeming stalemate that had developed between the utilities and their opponents.

Some participants in that struggle viewed the transfer as a real loss to environmentalists and to consumer and community advocates, because of their feeling that the 149-b process finally was beginning to be viable. Marilyn DuBois, legislative director of the Environmental Planning Lobby, argued that while some comprehensive energy planning was needed in New York State, the basic element for the new State Energy Master Plan (SEMP) would continue to be the old 149-b reports from the utilities. DuBois stated:

> What happened was that the 149-b reports became the basis for 5-112 [SEMP]. They ended up driving the

> Master Plan. We didn't have a different way of forecasting, so the utilities' plans were still taking the lead.[38]

Consequently, taking the planning process from the PSC not only failed to significantly expand the data base upon which public energy-planning could be conducted, but resulted in the loss of the PSC's experience and leverage in terms of long-range forecasting related to ratemaking. Further, in DuBois's view, the resolution of the deadlock between the utilities and their opponents did not come out of the new energy planning process; but, rather, the decrease in electrical demand due to rising prices compelled the utilities to downgrade their own construction plans. Meanwhile, "SEMP became a very expensive, time-consuming process, but nothing new or particularly helpful in being binding"[39] on the Article VIII proceedings.

Howard Shapiro made essentially the same critique of the first SEMP, noting that the utilities were attempting to focus upon the impact of the reduced supply of oil and the concomitant rise in prices to which consumers were exposed. Noting that although the transportation sector, not the utilities were the largest consumers of oil in the State, he felt it convenient to focus attention on the utilities because of the information available from them and "because they are so highly regulated". Because of the attention focused on the utilities, Shapiro felt--like DuBois--that SEMP never got very far beyond the electrical-system planning process in existence

under the PSC's 149-b:

> We were disappointed in that the statewide Energy Master Plan became a proceeding on a statewide electric plan, with a little concern on natural gas.... There was lip service on other aspects.[40]

Looking again at the issue of citizen involvement in planning, the question arises as to the impact of the transfer upon citizen access to decision-making. The substance of the Environmental Planning Lobby's critique of the proposed SEMP legislation was that it would undermine a process that had developed into a truly effective mechanism for citizen involvement in electric-system planning. When first instituted, the 149-b process had not been greatly impacted by citizen intervention; but by the time of its transfer, the 149-b proceedings were used effectively by citizen's groups to gain information about pending construction proposals and to challenge the utilities on the need issue by exposing flaws in their load-forecasting methodologies. Thus, with regard to the justification for the transfer of 149-b to the State Energy Office, the Environmental Planning Lobby expressed concern for its impact upon citizen participation:

> The present process under the PSC subjects the utilities to cross-examination on their forecasts for energy in a formal hearing process and record. This bill would trade in such a useful process for an in-house process directed by the State Energy Office, with substantially more limited public participation.[41]

Furthermore, the EPL pointed out the gains made by the PSC's process which would be lost in the transfer:

> At present, state agencies and citizen intervenors are integrally involved in the hearing process for long-range energy planning. Under the revised proposal, the public is simply a "reactor" to the load forecasting data which ultimately emerges from the Energy Office as a finding of projected electrical demand. The State Energy Office is **not** required to develop independent analysis or reports on electrical generating capacity needs.[42]

The Environmental Planning Lobby had a number of specific criticisms of the legislation, all of which point to the SEMP process's being more limited than that which existed under the PSC. For instance, the proposed legislation would make the planning cycle a two-year one, while 149-b's had been annual. The EPL stated in its memo that the "load forecasting process should be **annual**; the situation can change too rapidly to justify a lengthier time period."[43] Marilyn DuBois noted in an interview that "the investor-owned utilities are coming in for rate increases every year, so SEMP was not reactive enough to the changes in utility plans."[44]

The legislation's sponsors and the utilities argued that the cycle should no longer be annual because their experience had been that one year's 149-b proceeding would still be running when the next year's was required to begin. In an effort to alleviate this problem, the State Energy Office was given a delimited four month time-frame to prepare the report on projected electric-and gas-system demands and to conduct its hearings. This schedule was referred to by Marilyn DuBois as "truncated." Public Service Commission Chairman Charles Zielinski noted in his memo that "the timing contemplated by

the provision...is totally unrealistic."[45] Zielinski further commented on this point:

> There is just no way that the public can participate meaningfully in so complex a process within the time limits specified in the bill. Time limits in legislation, I recognize, are often only precatory, and should give way to more substantive provisions. But this most recent version of the bill may not, by its terms, permit that to happen and may therefore mislead a public that is being told it will have an opportunity for meaningful participation.[46]

The Environmental Planning Lobby memo elaborated upon the SEMP process's limits in terms of citizen participation:

> The proposed intervenor funding [$200,000] must serve the public interest for a minimum of 12 public hearings. This funding is inadequate. Furthermore, the money is dependent on the Governor and the Legislature for appropriation in the budget.[47]

Marilyn DuBois characterized the intervenor-funding provision as "an empty promise. It was never sufficient to cover the costs."[48] In addition, while it was an expensive process, DuBois claimed that the State Energy Office did not base its funds disbursement on intervenor contributions to the process. In essence, the State Energy Office "could keep in or lock out anyone they wished."[49] This criticism was particularly prescient since intervenor funding failed to receive legislative approval after the first round of SEMP hearings.

Beyond the constraints imposed on citizen participation in the hearing process under the enabling legislation for SEMP, the repeal of 149-b would result in a considerable

narrowing of the range of issues considered in the planning proceedings. The EPL listed the following determinations which would be lost in the transfer:

> a. utility R & D programs, including consideration of appropriateness and cost, and the benefits to the ratepayers; b. transmission line planning, including such factors as reliability, corridors, voltage levels and timing; c. fuel mix; d. reserve margin and system reliability; e. baseload vs. peaking vs. intermediate peaking capacity; f. siting issues and site inventory; g. utility conservation and load management.[50]

With the requirement to remove determinations on these issues, citizen's groups involved in the energy-planning hearings--and, possibly, engaged in Article VII and VIII proceedings--had significantly less information at their disposal to use in challenging the utilities on their load forecasts and research-and-development programs.

Finally, on the basis that SEMP provided a more narrow, delimited hearing process, the EPL strenuously objected to the provision that it should be binding upon Article VIII proceedings:

> The load forecasting is **binding** upon the Article VIII proceedings. There is no recourse for re-examining the forecasts within the individual proceedings, particularly where there are extenuating circumstances which would justify reopening these findings.[51]

The binding nature of the SEMP determination of need was the most appealing part of the legislation from the utilities' perspective, although this was not stated in their memorandum on the legislation. Both Niagara Mohawk Power Company President John G. Haehl and Central Hudson Gas and Electric

Co. Vice President William Kling expressed support for the legislation, with Kling noting that it "will assure the development of long range electric and gas plans in an orderly fashion."[52]

But the most extensive expression of support for the SEMP legislation, in terms of the objectives behind the establishment of this new planning regime, came from Raymond T. Schuler, President of Associated Industries of New York State:

> Presently, State planning in some areas including energy, tends to be piecemeal, uncoordinated and inconsistent. On the other hand, a company must plan its operations on a long-range basis. This requires the businessman to look 10, 15 or 20 years into the future and make certain projections regarding the firm's operations. It is in this capacity, that a long-range energy plan, with its projections for the future, will be of assistance by providing some directions to the businessman in projecting his future operations in New York State. A consistent State energy policy of this nature should allow the businessman to make his decision for the future under more secure and certain circumstances.[53]

From the utilities' perspective, this certainly could be produced only if the new planning process were made a binding instrument on the Article VIII proceedings. On this point, Howard Shapiro of the Energy Association stated, "SEMP and the Article VIII renewal dovetailed very clearly. The Energy Association felt the need to make SEMP determinations binding on Article VIII. We needed certainty."[54]

This statement suggests that the more significant change in the regulatory scene was the revision of the Article VIII

legislation with regard to the need determination. Under the existing legislation, the PSC had access to utility information on load forecasts through both the 149-b proceedings and Article VIII proceedings. Citizen intervenors then could draw on utility forecasts from two sources, often in conflict with each other. By making the SEMP findings on need binding on the Article VIII proceedings, the utilities would be freed of a significant source of opposition to their plans. Again, the thrust of the revisions here in 1978 was to produce greater certainty for utility planners by narrowing the range of issues that could be raised by intervenors in the Article VIII proceedings. In this sense, the shift of jurisdiction from the PSC to the State Energy Office is an example of narrowing the scope of conflict by removing contentions from the arena of citizen intervention.[55]

THE REVISION OF ARTICLE VIII

When Article VIII originally was being considered in 1972, Robert O. Lehrman, Vice President of Consolidated Edison Company, urged Governor Rockefeller to sign the bill with this message:

> It replaces the present fragmented review among many agencies and localities of isolated factors involved in siting such facilities without ever considering the full spectrum of public interest factors involved.[56]

By 1978--despite the streamlining of the licensing process envisioned in Article VIII--no new licences had been granted to utilities to construct major generating plants in

New York State through the Article VIII process. Consequently, along with the creation of SEMP there was legislation to streamline further the licensing process. The legislation's statement of purpose follows:

> To enact a new Article VIII of the Public Service Law to make the regulatory process by which major steam electric generating facilities are certified more fair, expeditious and sensible, thereby reducing the substantial costs of construction facilities and of processing applications under the Article.[57]

As with the SEMP legislation, the provisions of this legislation clearly indicate the utilities' desire to make the siting process less open-ended. First, the revision entailed the establishment of a two-year time frame for the Siting Board to make a final determination on an application. Secondly:

> In addition, in order to avoid delay attributable to insubstantial or unconnected issues, the presiding examiner and parties would be required to hold a prehearing conference to specify issues and to expedite the orderly conduct and disposition of the hearing on the application.[58]

The specification of issues in the prehearing conference has tremendous impact upon the entire process because of its potential to delimit the scope of contentions which may be made on an application.[59] From the utilities' point of view, the successful conference would produce a much more limited agenda of issues for consideration than citizen intervenors would prefer. Also, when viewed in conjunction with the establishment of SEMP, the binding nature of the Energy Planning Board's determination of need placed a

constraint on opponents' ability to raise questions about changing demand forecasts in an Article VIII proceeding.

Another Article VIII revision provided for a pre-application procedure in which "prospective applicants could obtain timely approval from PSC and DEC staff as to the scope and methodology of environmental studies relating to applications...."[60] Again, this would introduce a greater measure of certainty for utilities in their attempts to conform with the State's standards for environmental compatibility of a generating plant. Also, it would serve further to remove environmental groups and other concerned citizens from playing an active role in the determination of environmental compatibility, because the agency staffs would in effect be giving advisory opinions on the adequacy of utility environmental studies **before** the application was filed. Thus--in the interests of expediting the licensing process--the Article VIII revision served to make closer links between the agency staffs and the utilities' environmental consultants. At the same time it restricted the intervenors' access to the debate over the merits of an applicant's claim of environmental compatibility.

Specifically with regard to the role of intervenor groups in the revised process, this legislation would provide $150,000 for broad-based local government and public participation in the siting process.[61] Simultaneously, the 90-day time limit for notification of intent to be a party to

a proceeding was reduced to 45 days. In essence, these amendments would result in the availability of more funding resources to a smaller group of intervenors. This may explain the position of the Environmental Planning Lobby--the only citizen group to submit a memorandum on the bill, which stated that the group was "basically in support."[62] It must be noted at this time, however, that the EPL was devoting substantially greater effforts to the energy-planning legislation than it was to Article VIII.

Consistent with its reaction to other attempts to establish regulatory jurisdiction over its operations, the Power Authority objected to one provision of the revised Article VIII:

> The Authority wishes to point out tht 5.5992-B would differ from the existing law by providing that a determination of necessity for a generating facility by the Power Authority is to be conclusive on the Siting Board only with respect to a facility for which an application for a certificate has been filed prior to July 1, 1978. This new limitation may be regarded by the bondholders and contract customers of the Authority as an impermissible restriction on the planning and construction of new facilities by the Authority required to carry out its existing legislative responsibilities, and therefore violate of the State's pledge to them that it would not limit or alter the rights vested in the Authority until the Authority's outstanding bonds are retired and its contracts fully performed.[63]

This was not the first attempt to include the Power Authority under the jurisdiction of Article VIII. Assemblyman Irwin Landes originally had offered a bill in 1975 to include PASNY in Article VIII, where it died in the Senate

Corporations Committee--only to be reintroduced, and to fail again, in 1976. In 1977, the same bill passed the Legislature [Senate vote: 55-yes, 0-no; Assembly vote: 137-yes, 4-no] only to be vetoed by Governor Hugh Carey. In his Memorandum to the Counsel to the Governor in Opposition, Power Authority Chairman Frederick R. Clark drew upon its legislative mandate to make the case for continued exemption. The most notable arguments came in connection with the electricity shortage in the New York metropolitan area, and with the risk with which the Authority bondholders would be faced from the possible loss of Authority customers. In addition, Clark argued that this legislation was unnecessary because the Authority's right to determine the need for new electric generating facilities was

> ... completely consistent with ongoing statewide planning for new power projects undertaken by all members of the New York Power Pool. The Authority now participates fully in the preparation of the comprehensive long-range plan for future operations submitted to the Public Service Commission annually by the members of the Pool pursuant to Sec. 149-b of the Public Service Law, including the coordinated development of load forecasts. The Authority carefully advises the other Pool members of its plans for new facilities and they afford full consideration to the Authority's activities in developing their own programs.[64]

What is implied here is more than the desire of the Authority to remain autonomous from State regulation. PASNY's participation in load-forecast development and in coordination of construction programs within the Power Pool indicated that its original mandate as yardstick competitor

with the investor-owned utilities had been eclipsed. That the Authority desired to maintain its status as a non-regulated electric corporation, while participating in the planning of the Power Pool, suggests that it had abandoned its tradition as a yardstick competitor.

In fact, the core of the Power Authority's defense of its exemption from a determination of need for Article VIII was the potential impact on bondholders. As Ann Marie Walsh noted in The Public's Business,

> Financial arrangements for most public authorities insulate them from even the normal regulatory measures applied to investor-owned corporations.[65]

In this case, Governor Carey used the argument concerning the threat to bondholders as the legal basis for his veto. But in his veto message, some of the frustration concerning the seeming inability of utilities to get plants licensed also was evident:

> I am informed by the Attorney General that, with respect to the proposed PASNY facility for which bonds have been issued, the recent Court of Appeals decision in Patterson v. Carey, 41 N.Y. 2d 714 [1977], raises a question as to whether the repeal effected by this bill would abrogate the covenant of the State, as contained in Sec. 1011 of the Public Authorities Law, and thereby violate the prohibition of Article I, Sec. 10, Clause 1. of the United States Constitution against the impairment of contracts. The Attorney General opines that a court might find the effect of the bill to be so minimal that it does not rise to constitutional significance. **Whatever the court's ultimate decision, any litigation could only serve to protract the hearings which are already underway.** This would constitute but another delay in the siting of a power plant in this State. And, as I have previously stated--and the most recent

> blackout has shown, there is a need to expedite the siting process, and not to add still another barrier.[66]

In this regard, the position concerning power-plant siting appears not to have changed appreciably under Carey's Democratic governship from the Nelson Rockefeller years--especially when the General Counsel of the PSC, Peter Schiff, had urged approval of the bill in an effort to "permit more rational planning." In response to PASNY's claim that this legislation would impair its contract obligation to bondholders, Schiff wrote:

> the legislative decision that the Siting Board should make an on the record finding of need will protect, not harm, bondholders. Clearly, an unneeded plant will not produce necessary revenues to repay bondholders.[67]

Schiff further questioned the validity of PASNY's exemption from PSC regulation in connection with other issues in Article VIII proceedings:

> Furthermore, PASNY has sought to construe the need exemption to go beyond what would seem to be the normal construction of need, claiming that the need exclusion means PASNY can determine, without examination by the Board, the type of fuel for a particular plant. But fuel mix is very much a matter of systems planning and cost, both questions for the Board. Thus, the new legislation will avoid time-delaying requirements about the scope of Siting Board authority.[68]

NYS Attorney General Louis J. Lefkowitz submitted two letters to Governor Carey, both of which recommended enactment of the legislation. Lefkowitz made the point that PASNY's role in the State's electric system was too large for the exemption to continue:

> Future projections of power plant construction indicate that PASNY will be one of the largest builders of steam electric generating facilities. There is no justification for the present exemption ... permitting PASNY to decide for itself whether or not to construct new plants, without being subject to the scrutiny given comparable applications by other utilities.[69]

In addition, Jeffrey C. Cohen of the State Energy Office--which would receive authorization for electric-system planning in the following year--also urged support of the legislation in order to facilitate planning. Cohen argued that PASNY's exemption

> makes it difficult, if not impossible to determine present or future generating needs on a statewide basis and thus confuses the capital planning and needs projections of privately owned utilities who may provide service in the same service territory as PASNY. Under the present condition, these utilities must estimate the planned PASNY activities rather than refer to documented needs statements of the Authority when undertaking their planning.[70]

It is clear from the Power Authority's intransigence on this issue that autonomy from PSC regulation was a higher priority for PASNY than the facilitation of public electrical-system planning. The original rationale for PASNY's exemption from regulation--that it could conduct its planning in the public interest without interference from politically hostile regulation--had been turned inside out by the Power Authority. Now it used the need exemption as a defense against the scrutiny of the interests it was created to serve.

For the Power Authority, the significance of the determination-of-need issue in the Article VIII proceedings is

that it correlated with the issue of load forecasting in the energy-planning proceedings, which had caused so many problems for the investor-owned utilities throughout the decade. In this sense, PASNY's reluctance to relinquish the exemption is indicative that it viewed itself as a competitor with the IOU's. For as long as the Authority could maintain that exemption, it had a significant edge on the IOU's in its plant-licensing ability.

However, the relationship between the Authority and various investor-owned utilities is complex, as is witnessed by Con Edison and Rochester Gas and Electric's letters on this legislation. Rochester Gas and Electric Company President John Kennedy appeared to endorse the views of the PSC and State Energy Office spokesmen:

> If the future needs for electrical energy by the people of the State of New York are to be met in an economically sound manner, it is vitally essential that the operations of the Power Authority of the State of New York be subjected to the same requirements that are imposed upon the investor-owned electric corporation.[71]

This is clearly the statement of an electric corporation which views PASNY as a competitor with an unfair advantage. That this was not the position of all investor-owned utilities in New York State is evidenced by the position taken by Consolidated Edison. Joseph D. Block, Executive Vice President of Consolidated Edison, made the following statement in disapproval of the bill:

> The requirement that PASNY prove the need for the two powerplants for which it has Article VIII

> applications outstanding is clearly not in the public interest. Availability of both of these plants-one on Staten Island in New York City and the other in Greene County have been reflected in the Con Edison long range plan to meet the electrical power needs in Con Edison's service area in the 1980's and in the New York Power Pool's long range plan to meet the overall power needs of New York State.[72]

In obvious contrast with its competitive relationship with Rochester Gas & Electric, PASNY had a very cooperative relationship with Consolidated Edison by the late 1970's,[73] further illustrating the Power Authority's erosion as a countervailing power. But, again, it is evident that some of the investor-owned utilities in the State perceived PASNY as a threat, and those antagonistic relationships served to prevent all of the utilities from presenting a united front on many issues regarding electric-system planning. The issue of PASNY's need exemption was another instance of conflicting reactions within the New York Power Pool.

The Power Authority's repeated attempts to maintain its exemption from PSC regulation concerning the need determinations for its proposed projects illustrates some points of interest for this study of electric-system planning. First, the Power Authority's justification for its exemption made no mention of yardstick competition, of the ineffectiveness of PSC regulation, or of the need to serve small rural and residential consumers of electricity--all of which had been used as rationale for the creation of the Authority. The emphasis on bondholders' rights both in

PASNY's memorandum and in the Governor's veto message provides support for Walsh's argument that the bond market is the most significant factor in shaping the public-policy behavior of public corporations. Further, PASNY's attitude toward this legislation demonstrates an indifference, at the very least, to the objective of increasing citizen participation in the planning process.

The Power Authority's response is thus indicative of a more general attitude of unwillingness on the part of the electric utilities to facilitate citizen participation. This most generally took the form of withholding as much information as possible from public scrutiny both in the siting and planning proceedings. It appears that the most jealously-guarded power of the utilities, including PASNY, was the private determination of load forecasting. The closer the PSC came to developing an independent capacity to do load forecasting, with increasing citizen input in that process, the more pressure was developed to separate the PSC's planning functions from its regulatory functions. This finally was achieved with the creation of the State Energy Master Plan (SEMP) process.

Third, the mixed reaction on the part of the investor-owned utilities to PASNY's attempts to maintain its exemption suggests that the utilities had not achieved a consensus on how to engage in electric-system planning within the Power Pool. That some of the upstate utilities viewed PASNY as a

threat and subsequently called for the removal of the exemption indicated that the Authority generally was not perceived as an instrument to be used by the investor-owned utilities. While no longer a true yardstick competitor with the utilities, PASNY clearly did represent a threat to some utilities. This lack of consensus on the Power Authority's role in electric-system planning within the Power Pool suggests there may have been disagreement on other issues relating to planning within the Pool. The uncertainty present in this environment generated further efforts to consolidate and stabilize the planning environment in as private a forum as possible. However, the expanding interest and involvement of citizen's groups in the SEMP process served further to threaten the Power Pool's attempts to establish a privatized energy-planning regime.

THE STATE ENERGY MASTER PLAN PROCESS

The investor-owned utilities desired an electrical-system planning process that would introduce greater stability within their planning environment. According to Howard Shapiro, Director and General Counsel of the Energy Association of New York State, the major sources of instability were "the politicization of energy decision-making without clear governmental directives; the non-constructive involvement of certain citizen intervenors in energy issues and proceedings, controversies over powerplant and transmission-line siting; and the volatile energy situation due to rapidly increasing

oil prices and the corresponding appeal of natural gas as an energy source."[74]

Shapiro also observed that although the utilities placed oil at the focal point of the first SEMP proceedings, they were not successful in focusing attention on the entire usage of oil in New York State. Consequently, they were disappointed that SEMP degenerated into a proceeding dedicated almost entirely to the statewide electric system, rather than to the entire energy picture. Despite the limited scope of the SEMP proceedings, Shapiro commented that "everyone took it very, very seriously"[75] because no one quite knew how it would be applied. But despite the narrowly focused nature of the SEMP process, Shapiro argued that there was "little difference, on the scale of accomplishment, from the 149-b process."[76]

With regard to the existing stalemate in various Article VIII proceedings, the utilities wanted the SEMP process to play a role in expediting power-plant licensing as well. There had been a sense that the 149-b process was endless, amorphous, leading to no clear directives or conclusions. More specifically, in the 149-b process there was "nothing binding--no requirement that anything be done, no application to Articles VII and VIII."[77] The urgency created by the second oil crisis of the decade and by the State's desire to reduce its dependence upon foreign oil created the perception of need for new power plants. That is why, from the

utilities' perspective, the SEMP process and the revision of Article VIII dovetailed very clearly. Again, the Energy Association's position was that there was a "need to make determinations binding on Article VIII. We needed certainty."[78]

Citizen intervenors and environmental groups involved in energy planning had a different objective in mind. Marilyn DuBois, then legislative director of the Environmental Planning Lobby, argued that the cause for SEMP's enactment was the need for some comprehensive energy planning in the State. The impetus here came from Governor Carey's office. However, because the 149-b reports from the utilities continued to be the basis for SEMP, DuBois stated that "the transfer didn't really make a difference, in terms of energy policy. The Environmental Planning Lobby saw SEMP as nothing more than a glorified utility plan."[79]

In this regard, the promise offered by SEMP was the creation of a truly independent agency to perform load forecasting for the electrical system, where consumer and environmental groups effectively could counter the assumptions and determinations within the utilities' plans. And again, the crux of the debate was the question over whose models and methodologies would provide the framework for making decisions about future energy demand--and, consequently, for new power plants and transmission lines.

From the beginning of the legislative debate over SEMP,

the Environmental Planning Lobby was critical of the fact tht the legislative language on the SEMP report was sufficiently vague as to leave open, for the interpretation by the particular utilities, the question of the mode of generation. While the Master Plan would dovetail with the Article VIII process by establishing a binding determination-of-need for a facility, there was to be nothing binding with regard to the mode of generation. DuBois elaborated on this point:

> There was nothing in the process that led to "no more nukes". That decision had nothing to do with planning, or energy forecasting. It was the position of the Governor, and was arrived at by the State Energy Office because of public opposition to nuclear power.[80]

In this regard the transformation of the planning system caused by SEMP's enactment and by the revision of Article VIII was much more narrow than that envisioned by environmentalists.[81]

From a consumer-protection perspective, SEMP offered the promise of leverage against the utilities' requests for rate increases. Of course, the potential for leverage here again is closely tied to the Energy Planning Board's independence from having to rely upon the utilities for all of the information concerning growth in electrical demand. And the hope at the time was that the State Energy Office--devoid of the PSC's regulatory reponsibilities, which had come into conflict with its planning activities--would be empowered during this energy crisis to engage in the formulation of an independent energy forecast. The more energetically it

attempted to do so, however, the more conflict it engendered with the electric utilities.

In 1978, when the SEMP process was enacted, the Power Authority expressed support for the measure in a memorandum which stressed more comprehensive energy planning as the rationale for its passage:

> We anticipate that the development of this plan will be an important step forward in reducing the heavy dependence of this state on imported oil as an energy source, particularly with respect to fueling electric generating facilities.[82]

At the same time, the Power Authority was opposed to the removal of its exemption from the requirement to prove need for its projects in Article VIII proceedings. This seeming contradiction can be explained by the fact that as the likelihood increased of the removal of PASNY's exemption, the more supportive the Authority would have to be of one feature of the SEMP process--the binding determination of need in Article VIII proceedings. Also, by 1978 PASNY already was required to be a full participant in the 149-b process; which meant that in terms of its capacity to withhold information from public scrutiny, it certainly had nothing to gain from opposing the transfer of planning from the PSC to the State Energy Office. As State Senator Dale Volker described it, the "Power Authority felt that as long as they had a handle on the (Carey) Administration, they would have a handle on the process."[83]

Before proceeding further in our analysis of the SEMP

process, it is necessary to consider how the State Energy Office developed as an energy-planning agency. Initially, the Office was envisioned as a coordinator of the State's energy program, a position which had been shared by the Power Authority, the Public Service Commission, the Energy and Research Development Authority, and various other State departments. While the creation of the State Energy Office as an umbrella agency for State energy policy probably is largely the result of the availability of federal funds for such an office, the accompanying debate over energy policy and the proper role of government action is significant. Although Governor Carey's approval memorandum emphasized the important coordinating function to be assumed by the Energy Office, most of the substance of the debate over this legislation centered upon State requirements for information disclosure and standards for thermal insulation and building design.

Spokesmen for Niagara Mohawk Power Co. and Rochester Gas and Electric went on record in opposition to granting the State Energy Office statutory authority to enact thermal insulation and building-design standards, on the grounds that the PSC should continue to enforce thermal insulation standards by regulation. They also were opposed to making the Commissioner of the Energy Office a member of the New York State Board on Electric Generation Siting and the Environment. Both of these investor-owned utilities urged the repeal of the insulation-standards legislation, and passage of supplemental

legislation which would considerably alter the tenor of the statement of legislative intent for the State Energy Office. For instance, this supplemental legislation would delete the following statements from the original law:

> that the people of the State pay among the highest prices for energy in the nation; that such shortages and high costs have put businesses in New York State at a comparative disadvantage with other states;
> the Commissioner shall not have been an employee of any firm involved in energy transportation, production, distribution, sale or refining within two years of his appointment as commissioner.[84]

In addition, Chapter 820 eliminated the imposition of criminal penalties for violations of Energy Office standards, and removed the power even to investigate violations or abuses. Inserted into the enabling legislation was language to establish an Energy Advisory Council, to be composed of the Commissioners of the Commerce Department, the PSC, the DEC, the Energy Research and Development Agency, PASNY, and the Consumer Protection Board, along with five private individuals selected by the Governor. Finally, with this language Chapter 820 eliminated the requirement that the electric utilities be required to submit information to the Energy Office:

> ...whenever practicable, forms required to be submitted to federal or state agencies shall be sufficient to meet the requirements of this subdivision.[85]

John L. Kennedy, Vice President of Rochester Gas and Electric, was very straightfoward in his opposition to any requirement that the utilities should make public more information:

> On the assumption that this legislation will be signed, Rochester Gas and Electric would, however, respectively urge the Governor to assure himself...that the rules established by such a new agency do not require additional reports from the utility companies. This new agency should be able to utilize for its purposes the multitude of data currently furnished to the Public Service Commission.[86]

In the same context, Niagara Mohawk President John G. Haehl, Jr. appeared to dismiss the Energy Office as an agency with which the utilities would have to deal:

> This legislation will not change the basic responsibilities of the Public Service Commission towards the day-to-day operations of utilities; so that Niagara Mohawk, like other utilities, will continue under the same regulations of the Public Service Commission as has been the case previously.[87]

It is clear from these statements, and from the ways in which the State Energy Office's powers were emasculated in Chapters 820 and 821, that the utilities regarded the creation of the State Energy Office as a restructuring of the electrical-system regulatory framework which would not provide significant additions to the capacity for public planning.

Not all of the actors involved with this legislation had such small expectations of the new Energy Office. Assemblyman Daniel Haley, Chairman of the Legislative Commission on Energy Systems, argued in a memorandum to Governor Carey that statutory power was required for the Energy Office for several reasons, including the existing emergency in the energy situation; the impact of energy costs on employment and on the State's economy; and the weakness of agencies created by

executive order because of court tests and jurisdictional challenges.

Two other advantages for the Energy Office offered by statutory authority are particularly important for this study. Haley maintained that for an agency like the Energy Office, subpoena power "is essential to get vital data from key sources such as the big oil companies--whether or not this is an emergency. Even conservative Republicans recognize this need. An executive order cannot confer subpoena power on an Energy Office."[88] Secondly, a state energy policy with statutory backing is necessary for local governments, according to Haley:

> We need a legislative mandate--a **policy**--as a flag that everyone must salute. Only an act passed by the legislature and signed by the Governor can give the policy the prestige required.[89]

Beyond Assemblyman Haley's appeal for a statutory agency to coordinate energy policy, the architect of the legislation for the State Energy Office--Senator James T. McFarland--advanced six major objectives for State energy policy as an integral part of this legislation. The most notable element found in this statement of energy policy is the emphasis on conservation, which was to become the centerpiece of Energy Office activity--linking all of the objectives together. For instance, it was the responsibility of the State:

> [1]"to accelerate development and use within the state of renewable energy resources;"
> [2]"to encourage and require where appropriate conservation of energy in the construction and operation of new building;"

> [3]"to encourage and require the use of performance standards in all energy-using appliances, and in industrial and commercial applications of energy-using apparatus and processes;"
> [4]"to encourage transporation modes and equipment which conserve the use of energy", and
> [5]"to encourage a new ethic among its citizens to conserve rather than waste precious fuels, and to foster public and private initiative to achieve these ends at the state and local levels."[90]

This suggests that the State Energy Office's legislative architects had in mind an agency which would consider the framework of the energy system from an end-use perspective, so that the previous patterns of unrestricted growth in energy consumption could be examined and curtailed by State action. As witnessed by the utilities' endorsement of the legislation to restrict the power of the State Energy Office, these State initiatives posed further threats to the autonomy of the utilities in the formulation of energy policy.

How can the transfer of planning jurisdiction in 1978 from the PSC to the State Energy Office be explained? First of all, it must be recognized that the Public Service Commission itself almost was in a state of paralysis at the time. When Public Service Commission Chairman Edward Berlin left the agency in August 1977, there was a large lapse in time before a successor was appointed--which left the PSC at a loss during this period in establishing a direction for energy-planning. Acting Chair Charles Zielinski served until April 1981, during which time a number of other candidates were interviewed. This left Zielinski in a position of limbo concerning the exercise of his powers as Chairman of the

Commission.

Second, not a single Article VIII application had been approved since the inception of the process in 1972. This resulted in the efforts to streamline further the process when it was due to expire in 1978. As noted above, one of the utilities' largest obstacles in Article VIII proceedings was the determination-of-need issue, which had not been made easier with the 149-b process. The combination of the PSC leadership's uncertainty and the utilities' desire for revision of both Article VIII and the planning process left an opening for the State Energy Office to emerge as the agency responsible for energy planning.[91]

The transfer of energy-planning to the State Energy Office did not result in a resolution of the issues that had troubled the PSC's 149-b process. Just as the PSC was stalemated by the mode-of-generation issue, the State Energy Office's push for coal conversion never got off the ground because of attendant concerns for air pollution; because of citizen groups' criticism of the maintenance of the central generating station philosophy, and because of the gap between utility demand forecasting and actual demand. Energy Association Counsel Howard Shapiro expressed the investor-owned utilities' frustration with the SEMP process, holding that although the first SEMP report placed a "great emphasis on coal conversion, there was little support from the State when utilities attempted to convert."[92]

This led to the feeling that the expense and time invested in energy-planning was not very useful when the governor could scuttle the recommendations that came forward. Noting that Governors Carey and Cuomo both had opposed certain power plants recommended by the Energy Office, Shapiro stated the following as the cause for the SEMP non-renewal in 1983:

> Some people in the Legislature felt that the process had been politicized. The State Energy Office was very political, and had not accomplished much. It was a vehicle for the governor to express his views on energy.[93]

Here the utilities' attitude that the energy-planning process should not be politicized means that the arena of decision-making should be confined to those experts who have been engaged in the electrical industry and consequently, view planning from an investor-owned utility perspective. The role of the State in this context is to provide a regulatory environment where those experts can negotiate with the greatest flexibility with the public servants charged with protecting the public interest in related areas, i.e., environmental impact or consumer protection. But there is little room in the IOU's view of the planning process for citizen initiatives that may challenge their assumptions concerning the objectives of energy planning.

Ironically, it was in Governor Carey's "Special Message on Energy" where this objective of energy planning was most clearly stated:

> State energy policy must, to the maximum extent feasible, **facilitate private sector actions**, by establishing an effective energy policy framework for cooperative private and public action. State energy policy must integrate, streamline and improve the management of state energy functions, programs and regulatory processes.[94]

In this light, it is not surprising that the first SEMP report placed such heavy emphasis on coal conversion. First, it was the mode of generation that appeared to be most suited to the established central-generating station policy of the investor-owned utilities and could perpetuate the utilities' strategy to garner capital by expanding their rate bases.[95] Second, coal is a non-renewable fossil fuel, thus offering the potential to become a source of electrical generation whose expense could be passed along to consumers. Although estimates of coal availability vary, coal is generally recognized as a relatively abundant fossil fuel. Barry Commoner states in The Poverty Of Power that there "seems to be quite general agreement among geologists that the accessible deposits of coal, both in the United States and worldwide, would last about 400-500 years at the present rate of use."[96]

Third, the public outcry against nuclear power for environmental and health reasons appeared to be addressed by the coal-conversion policy, thus providing legitimacy for the SEMP process in the eyes of anti-nuclear groups. These are the reasons why the Empire State Electric Energy Research Corporation reported that American utilities were expecting to

increase their use of coal from 480 million tons in 1977 to 1700 million tons by 2000.

Despite these advantages posited for coal, there are also a number of negatives. When the nuclear reactor industry began selling commercial reactors in the late 1950's, utilities were pleased with the prospects of avoiding the costs and criticisms associated with coal-burning electrical generation. Ironically, the boost given the fledgling nuclear industry by environmentalists' objections to coal later was applied to the nuclear industry without disappearing from the debates over expanded use of coal. In additon, advocates of alternative energy feared that a major shift to coal would deprive the U.S. of the opportunity to transform its electrical energy system along the lines of "soft path" technology.

The electric utilities in New York State discouraged the notion of using coal as the major fuel because of transportation and pollution-control costs. The pro-nuclear policies of Governor Rockefeller also resulted in a reluctance on the part of utilities to foresake their nuclear power development expenditures to move toward coal. The protracted generic hearings of the Public Service Commission on the coal-versus-nuclear question failed to resolve the issue. When the first SEMP report signalled a de facto moratorium on nuclear power development, the utilities disparaged the prospects for a rapid, economical, and environmentally-safe

transition to coal. The New York Power Pool reported that due to increased demand, the "electricity generated by coal will account for only about 16 percent of the total generation capacity by 1994."[97]

Going beyond the stated utility concerns, the integration of the energy companies provides answers to the reluctance to resort to increased use of coal. Since the energy companies had begun purchasing greater interests in coal production, as well as in uranium and in their existing petroleum reserves, they wanted to exercise as much control as possible over how and when these resources would be utilized. By forestalling the expanded use of coal, these integrated energy giants would be able to exploit the high costs of petroleum and to continue to push for nuclear power development as well.[98] Further, as Ray Reece describes in The Sun Betrayed, these same energy companies were successful in directing federal research-and-development funding into "alternative" technologies that would continue to be capital-intensive and centrally-controlled. These are some of the reasons the first SEMP report did not stray far from the presuppositions of the investor-owned utilities with regard to the mode-of-generation issue.

By contrast, the SEMP report's load-forecasting conclusions clearly were at odds with those of the New York Power Pool. Some individuals interviewed suggested that the SEMP reports were tailored by the State Energy Office to coincide with the policy views of the Governor.[99] The

essential point to note here is that in the planning conducted by the State Energy Office, there continued to be movement in the direction of independent load-forecasting by the State. As these forecasts came into conflict with those of the New York Power Pool, the utilities raised a clamor that the SEMP process was politicized, which aided in the sunsetting of SEMP in 1983. The openness of the SEMP hearings for public participation also was looked upon with disfavor by the utilities--again because citizen intervenors introduced issues and assumptions which did not fall within the tenets of utility planning.

Raymond Hull, former Staff Director to the Senate Energy Committee, and currently Public Affairs Director for Niagara Mohawk, explained that the lapse of the SEMP process was due to the State Energy Office's inability to effectively perceive and to serve the needs of the electric utilities:

> This business runs on a 10-12 or 20-40 year time frame. You've got to have certainty to go to Wall Street. The high cost of money leads to loss of faith by investors, which generates higher interest rates. Wall Street doesn't buy consumer activists, they buy bonds.[100]

The proper role of government, from Hull's perspective, is to establish a policy without politics. The non-renewal of the SEMP process resulted, consequently, from the unwillingness of the State Energy Office to take a long-term stand on policy. Because the reports of the State Energy Office have been "used for leverage for other stuff" by the Governor, "long-term certainty has been replaced by

politics."[101]

Nancy Klein and Terry Fox, legislative representatives for the Power Authority, posited that the reason for SEMP's non-renewal was indeed political. Klein argued that SEMP was an effective process because it "provided an opportunity for a group of professionals to contribute to a long term energy plan for the State,"[102] a process which the Authority endorsed. However, Fox added that the Legislature, particularly the Senate, was upset with the State Energy Office, and consequently blocked SEMP's renewal.

Senator Dale Volker, Chair of the State Senate Energy Committee, explained that by 1983 the need was not as great as it previously had been for a SEMP-type process--particularly since the "State Energy Office has become political. It is not doing its job independently".[103] Volker claimed that in 1981, the Energy Office submitted its SEMP report and waited for Governor Carey's response; then revised the numbers in the report to reflect the Governor's anti-nuclear position. In his view, this activity resulted from the increased involvement of environmental and consumer groups in the planning process. The climate of the 1970's was one in which the country was coming out of an era of low energy costs and entering one of high energy costs, which increased the level of political agitation--leading to the process's becoming political. The real problem posed by the process's politicization, according to Volker, "is when there are

threats to the financial viability of the utilities, which would raise rates throughout the State."[104]

Senator Volker's staff counsel, Frank Breseler, echoed the view that the State Energy Office had become "a very political operation" and argued that the SEMP process "was a one-way obstructionist process. It did not provide a safe harbor for anyone."[105] Breseler stated that the primary reason SEMP was not renewed was that "the Administration used it when it was needed, and didn't when not", adding that despite the desire of the Senate to have some kind of energy policy and some kind of planning, it "is probably impossible to make anything binding upon the Administration."[106] In other words, both Volker and Breseler view the State's role in energy planning to be one where stability is provided for the utilities in terms of getting their projects financed.

This means that citizens groups' access to the planning system should be circumscribed to limit the threats to the financial viability of electric utilities. For instance, with regard to intervenor funding for the SEMP I Report, Volker maintained that there was no consensus as to which groups should be funded; and because of the fiscal crisis, the funding later was cut out entirely. On this point, a former counsel to Senator Volker made the argument that when intervenor funding was enacted for SEMP in 1978, there was no clear understanding of how the process would evolve. Later, the Senate wanted to settle the question of need for projects,

and intervenor participation was not helping from that perspective.

Francis McNally, Staff Counsel to Assemblyman G. Oliver Koppell, argued that the failure to reenact SEMP arose because a very politicized climate had surrounded energy issues since the Shoreham and Nine Mile II nuclear plants entered the picture. As examples, he pointed out that SEMP's expiration coincided with the conflict over operation-licensing of those two nuclear-power plants.[107] Furthermore, the State Energy Office 1985 forecast expressed implicit opposition to Shoreham--but also the need for more electricity for Long Island. This charged climate does not appear capable of resolution, since the State Assembly annually passes legislation to reenact SEMP, while the State Senate introduces legislation to empower the Public Service Commission to conduct energy planning.

Richard King, Counsel for the Public Service Commission, noted that by 1983, increasing penetration of electrical generation by small producers in New York State--combined with low rates of load growth--resulted in a situation where no new major power plants were needed. In other words, since the utilities were not planning any major supply options for the near future, the SEMP process was no longer needed as a check on the utilities.[108] Articles VII and VIII, still in effect to deal with siting of transmission lines and power plants, were felt to be sufficient. James Parmelee of the State

Energy Office disagreed on this point, arguing that from a legal perspective, no energy-planning process has the force of law. Consequently, because Article VIII requires a determination of need for a major generation plant, there is "currently no process for siting a major thermal power plant."[109] Parmelee, however, also attribute SEMP's lapse to friction between the upper management of the State Energy Office and the legislature, an assertion consistent with the views of others mentioned above.

It is clear that by 1983, some of the issues that had troubled energy planners since the early 1970's seemed to have been resolved, e.g., the desirability of coal over nuclear plants as a mode of generation. Perhaps more importantly, the prolonged conflict between the utilities and consumer advocates, environmental groups, some members of the PSC, and SEO staffs over future electrical demand had been resolved in favor of the latter: the utilities were revising their load forecasts downward. In this regard, Richard King's argument that SEMP was no longer needed as a check on the utilities seems to have some explanatory power; but as will be discussed in Chapter Four in connection with the Nine Mile II nuclear power plant, the mode of generation as part of energy mix still is a point of conflict.

Citizens groups which had been active in the SEMP process were in strong support of its reenactment. Judy Enck, currently legislative director of the Environmental Planning

Lobby, noted that the EPL worked intensively for the continuation of intervenor funding because they were "concerned that the utilities and agencies had funding, but environmental groups did not."[110] Nevertheless, after the first SEMP planning function, no money was authorized for intervenor funding in the second and third SEMP proceedings. Enck's perception of the utilities' view of SEMP is that despite public expressions of support for the process,

> ...the utilities did not push for SEMP. They were not against it, but did not lose any sleep when it was sunsetted. They were not really bothered by SEMP, but did not see any great value in it.[111]

Further--since the utilities were not interested in its renewal--the view of such Senate Republicans as Senator Volker that the work of the State Energy Office was overly politicized led to the sunsetting of SEMP.

CONCLUSION

At this time, it is necessary to elaborate upon some of the conclusions which have emerged from this study of the legislative framework for public energy-planning. First, quite obviously, there has been a consistent effort on the part of the electric utilities--including PASNY--to maintain restrictions on the scope of citizen input in energy-planning. This practice is consistent with E.E. Schaatschneider's notion that the manipulation of the scope of conflict is the central activity of politics.[112] With the passage of Articles VII and VIII, community groups lost significant leverage against proposed transmission lines and generating plants because

municipal zoning codes were overridden. Additionally, the revision of Article VIII in 1978 came under intense pressure from the utilities to restrict the admissible contentions of the citizen intervenors in those proceedings.

Second--as the Environmental Planning Lobby, the Public Service Commission and others noted--the transfer of electric-system planning from the PSC to the State Energy Office provided for a compressed hearing process and for the loss of consideration of several items of utility operations which had been part of the 149-b process. Of course, the non-renewal of intervenor funding for SEMP, and ultimately of the entire SEMP process, has constrained severely the impact of citizen intervention in energy-planning.

John Kenneth Galbraith attributes this phenomenon to the development of corporate planning, which applies to the electric utilities in New York State. As the scale of operations increases, there follows greater attention by corporate planners to the restriction of citizen access to planning:

> In other words the firm is required, with increasingly technical products and processes, increasing capital, a lengthened gestation period and an increasingly large and complex organization, to control or seek to control the social environment in which it functions--or any part which impinges upon it. It must plan not only its own operations; it must also, to the extent possible, plan the behavior of people and the state as those affect it. This is a matter not of ambition but of necessity.[113]

Galbraith's concern here with regard to the planning of peoples' behavior focuses upon corporate efforts to ensure consumer demand and receptivity to commodities produced through these lengthened gestation periods. Electric utilities engage in considerable activity to manage consumer demand for electricity, most often in the direction of promotional efforts to stimulate growth in demand. But it is also apparent that the electric utilities have engaged in efforts to manage the political behavior of citizens to more closely conform with the objectives of corporate planning. For instance, the utilities engage in systematic efforts to mobilize public opinion in support of particular projects,[114] which suggests that this activity should be recognized as symptomatic of the politics resulting from corporate planning.

On a more particular level, Philip Selznick, Victor Hobday, and Paul Conkin all have noted in separate studies of the Tennessee Valley Authority the negative impact of the insistence of TVA management that municipal power boards be appointed and not elected.[115] David Myrha argues that the Washington Public Power Supply System's systematic discouragement of public participation in energy-planning was a major contributing factor to its own default.[116] What these activities to restrict public input indicate is that a dramatic divergence of objectives exists between electrical-system planning as envisioned by electrical utility

corporations, and that envisioned by consumer, environmental, and community groups. Consequently, the struggle over the legislative framework for planning is in essence a struggle over the framework of values and objectives that will form the parameters of planning.

The Power Authority's role in the transformation of the legislative framework for public energy-planning demonstrates its abdication as a countervailing power. In American Capitalism, John Kenneth Galbraith poses the argument that government-sponsored opposition to concentrated private power--or countervailing power--is the preferred mechanism for the restoration of the balance between public and private power.[117] More recently, Galbraith has expanded upon the notion of countervailing power--although it is now called the dialectic of power--but without the prescriptive argument for government-sponsored opposition.[118]

Both Richard Hellman and Richard Harold Longshore conclude that the Power Authority's viability as an instrument of yardstick competition for the investor-owned utilities in New York State is in serious question.[119] Both of these authors approach the study of PASNY through a literal reading of the enabling legislation, basing their definition of the yardstick-competition mandate upon the public-preference provisions in that legislation. While I am not in disagreement with their conclusions concerning PASNY's recent record as a yardstick competitor, it is the relationship

between the activities of the Authority and the public-power movement which is of interest here. Because the Power Authority owes its existence to the public-power movement agitation in the first third of this century, it seems likely that PASNY would continue to be engaged in efforts to bolster that movement as a means of fulfilling its mandate. However, the Power Authority's pattern of activities with regard to citizen input in energy-planning and in power-plant and transmission-line siting reveals, at best, a profound ambivalence toward the contemporary movement.

Several examples of this attitude could be cited here. First, the Authority's reluctance to submit information for the PSC 149-b proceedings indicates a distrust of public scrutiny of its planning. Second, by obstructing the extension of the determination-of-need issue in Articles VII and VIII to cover its own planned projects, the Authority was depriving citizens' groups of oversight in an effective check on overexpansion of generating and transmission capacity. And third, while the Power Authority publicly was supportive of the SEMP process and its renewal in 1983, there was no support forthcoming from PASNY for the continuation of intervenor funding in the SEMP II and III proceedings.[120]

In a general sense, the Power Authority's reaction to citizen input on the issues of project siting and energy planning were very similar to that of the investor-owned utilities, who consistently strove for autonomy from public

oversight. Despite its incarnation as an agency at the forefront of the public-power movement earlier in the century, the Power Authority's inaction and obstruction is a clear index of its decline as an instrument of countervailing power to the investor-owned utilities.

One possible explanation of the Power Authority's abdication as a countervailing power is that, in attempting to act as a yardstick competitor to the private utilities, it has adopted the same sophisticated technology and operating techniques that beg for planning. And as noted above in Galbraith's analysis, corporate planning has a very low tolerance for public oversight and intervention--even though corporations require government assistance in establishing the framework for corporate planning.

The public electrical-planning system in New York State is particularly illustrative of this point because it developed under constant pressure from community and consumer groups, envronmentalists, and the anti-nuclear movement. Also, the initial moves toward public energy-planning with the PSC 149-b proceedings were imposed upon the utilities, who otherwise were reluctant to cooperate in making the electrical system more reliable. But by the end of the decade, and on into the 1980's, the utilities became much more willing to engage in cooperative efforts at energy-planning, largely because of pressure from citizen action groups. However, as the 149-b proceedings grew increasingly problematical for the

utilities, they engaged in more systematic efforts to transform the process through legislative action, finally resulting in the creation of the SEMP process in 1978. Ultimately, after five years of experience with SEMP, the authorization for public energy planning lapsed--allowing the utilities to continue to engage in cooperative planning through the New York Power Pool, without mandated review and oversight by government agencies.

This evolution away from public control has a central organizing principle from the perspective of the utility corporation. Due to the persistent threats posed to the utilities by citizen action, concerted efforts were made to establish political capitalism, defined by Gabriel Kolko as "the utilization of political outlets to attain conditions of stability, predictability and security--to attain rationalization--in the economy."[121] The rationalization that Kolko refers to is the transcendence, through government regulation, of the competitive capitalism during the Progressive Era. Here the rationalization is consonant with the restriction or diminution of public influence upon the operations and planning of the electric utilities. It is necessary to consider the notions of stability, predictability, and rationalization in Kolko's terms:

> **Predictability** is the ability, on the basis of politically stabilized and secured means, to plan future economic action on the basis of fairly calculable expectations. By **security** I mean protection from the political attacks latent in any formally democratic political structure. I do not

> give to **rationalization** its frequent definition as the improvement of efficiency, output, or internal organization of a company; I mean by the term rather, the organization of the economy and the larger political and social spheres in a manner that will allow corporations to function in a predictable and secure environment permitting reasonable profits over the long run.[122]

The utilities sought predictability through the imposition of their assumptions, models, and objectives into load forecasting, so that they would have some assurance of completing their projects--thus expanding their rate base. The security objective of political capitalism was achieved partially as facility siting became more focused into the one-step Article VII and VIII processes; but repeatedly it was threatened by the increase in citizen input in both the PSC 149-b and SEMP planning proceedings. Rationalization in this context refers to the organization of the entire complex of electrical-planning into a system responsive to the values, assumptions, and objectives of electric utility corporations. This also requires that alternative systems of values, assumptions and objectives--e.g. small-scale generation, renewable resources, public power, end-use planning--systematically be frustrated during their inception, and dismantled if they go into operation. While the utilities did use legislative action with some degree of effectiveness to establish political capitalism during this period of energy crisis, they also were compelled to use other means to ride out the storm of citizen action, which is the subject of the following chapters.

Chapter Three - ENDNOTES

[1] See Sidney Plotkin, Keep Out: The Struggle for Land Use Control, Berkeley: University of California Press, 1987, pp. 26-27, and 212-214 for discussion of these efforts.

[2] Ibid., p. 207.

[3] Interview with Peter Schiff, July 22, 1986.

[4] Governor's Approval Memorandum, New York State Legislative Annual--1970, p. 481.

[5] Ibid.

[6] Interview with Peter Schiff.

[7] Interview with Stanley Klimberg, June 27, 1986.

[8] Interview with Peter Schiff.

[9] Interview with Peter Schiff.

[10] John Kenneth Galbraith, Economics and the Public Purpose, Boston: Houghton Mifflin, 1973, p. 318.

[11] Interview with Thomas McGowan, July 24, 1986.

[12] Interview with Thomas McGowan.

[13] Interview with State Senator Dale Volker, August 27, 1986.

[14] Interview with Richard King, July 9, 1986.

[15] Interim Report, Temporary State Commission on the Environmental Impact of Major Public Utility Facilities, December 15, 1970. p. 8.

[16] Final Report, Temporary State Commission on the Environmental Impact of Major Public Utility Facilities, March 31, 1971. p. 5.

[17] Final Report, Temporary Commission on Environmental Impact..., March 31, 1971, p. 5. See Thomas H. Moss and David C. Sills, eds., The Three Mile Island Nuclear Accident, New York: New York Academy of Sciences, 1981, pp. 3-6. The notion of energy parks was envisioned by individuals such as Alvin Weinberg of the Oak Ridge Associated Universities. Weinberg called for the restructuring of the nuclear industry into powerful consortia, and confined siting of nuclear plants into

energy parks on 100 large permanent sites. Project Independence, developed in the Nixon and Ford Administrations, had called for 1,250,000 MW of nuclear capacity by the year 2000. Weinberg's rationale for the energy park concept are the following: "internal lines of transport, stronger operating entities on a large site rather than a small one, better organizational memory, improved construction practices, tighter security and better control of fissile material, a limit on the land at risk in the event of an accident, and a population living close to the plant that is sophisticated and experienced in nuclear matters." p. 4.

Also on nuclear parks see Gerald Garvey, Nuclear Power and Social Planning, Lexington: D.C. Heath, 1977, pp. 75-99.

[18] Final Report, Temporary Commission on Environmental Impact... March 31, 1971. p. 7.

[19] Final Report, Temporary Commission on Environmental Impact... March 31, 1971. p. 9.

[20] Bill jacket, Laws for 1972, Chapter 385.

[21] Bill jacket, Laws of 1972, Chapter 385

[22] Bill Jacket, Laws of 1972, Chapter 385, letter dated April 10, 1972.

[23] Ibid.

[24] Ibid. As an interim measure, he suggested that a Major Facility Site Selection Board be created, with at least two of the five members from the affected community.

[25] See David Roe, Dynamos and Virgins, New York: Random House, 1984.

[26] "Memorandum Recommending Amendment of An Act", Power Authority of the State of New York, January 31, 1975, p. 1.

[27] Ibid, p. 2.

[28] Ibid, p. 2.

[29] Ibid, p. 3.

[30] Interview with Joel Blau, July 23, 1986.

[31] Interview with Peter Schiff.

[32] Ibid.

[33] Interview with Stanley Klimberg, July 10, 1986.

[34] Interview with Howard Shapiro, Energy Association of New York State, August 7, 1986.

[35] Ibid.

[36] Ibid.

[37] Interview with Ray Hull, Niagara Mohawk Power Company, August 7, 1986.

[38] Interview with Marilyn DuBois, August 26, 1986.

[39] Ibid.

[40] Interview with Howard Shapiro.

[41] Bill jacket, Laws of 1978, Chapter 707, Environmental Planning Lobby memorandum.

[42] Ibid.

[43] Ibid.

[44] Interview with Marilyn DuBois, August 26, 1986.

[45] Bill jacket, Laws of 1978, Chapter 707, Public Service Commission memo dated July 24, 1978.

[46] Ibid, p. 2.

[47] Bill jacket, Laws of 1978, Chapter 707, Environmental Planning Lobby memo, p. 2.

[48] Interview with Marilyn DuBois.

[49] Ibid.

[50] Bill jacket, Laws of 1978, Environmental Planning Lobby memo, p. 2.

[51] Ibid.

[52] Bill jacket, Laws of 1978, letter dated July 26, 1978.

[53] Ibid., Laws of 1978, Chapter 707, Associated Industries letter dated July 31, 1978.

[54] Interview with Howard Shapiro.

[55] This is in keeping with the argument expressed in E.E. Schaatschneider, The Semi-Sovereign People, Hinsdale, Illinois: Dryden Press, 1960, p. 8.

[56] Bill jacket, Laws for 1972, Chapter 385, letter dated May 8, 1972.

[57] Bill jacket, Laws of 1978, Chapter 708.

[58] Ibid.

[59] In addition to E. E. Schaatschneider, noted above, see Barry Casper and Paul Wellstone, Powerline, Amherst, Mass.: University of Massachusetts Press, 1981, on the impact of scope of contentions.

[60] Bill jacket, Laws of 1978, Chapter 708. The revision moved also to "provide a procedure for early Siting Board review and action upon any application for federal water pollution control act permits."

[61] Ibid.

[62] Ibid., Environmental Planning Lobby letter dated August 3, 1978.

[63] Ibid., PASNY memo from Lewis R. Bennett, General Counsel, dated July 25, 1978.

[64] Memorandum to the Counsel to the Governor in Opposition, July 18, 1977, p. 2 on A. 6523 by Irwin J. Landes.

[65] Ann Marie Walsh, The Public's Business, Cambridge, Mass.: MIT Press, 1978, p. 157.

[66] Veto jacket, Laws of 1977, Assembly Bill A-6523, Senate Bill S 4698.

[67] Ibid., letter dated July 18, 1977, to Judah Gribey, Counsel to Governor.

[68] Ibid.

[69] Veto jacket, letter from Lefkowitz, August 5, 1977.

[70] Ibid., letter from Cohen, August 3, 1977.

[71] Ibid., John C. Kennedy, Vice President, letter dated July 15, 1977.

[72] Ibid., Joseph D. Block, Executive Vice President, July 20, 1977.

[73] The cooperation was signalled by the sale of Con Edison's Indian Point and Astoria 6 plants--only partially completed at the time--to the Power Authority in 1974. This action was prompted by the financial crisis of the investor-owned utility, which had caused it to miss payment on a dividend. Due to the environmental constraints faced by Con Edison in building new generating plants in or near its service area, it clearly relied on the Power Authority to use its need exemption as a means of installing new capacity for sale in the New York City metropolitan area. The State Legislature earlier had expanded PASNY's mandate to authorize construction of new generating capacity for New York City in 1972 (Laws of New York, Chapter 489). As will be discussed in Chapter 4, Con Edison cooperated with PASNY in obfuscating the need issue on the Cementon plant proposal during the joint NRC/PSC hearings, which further suggests a perceived commonality of interests.

[74] Interview with Howard Shapiro. William Davis, one of the authors of the SEMP enabling legislation, concurred with this assessment of the IOU's position on SEMP. Interview with William Davis, August 8, 1986.

[75] Interview with Howard Shapiro.

[76] Ibid.

[77] Ibid.

[78] Ibid.

[79] Interview with Marilyn DuBois, August 26, 1986.

[80] Ibid.

[81] Ibid. On the question of intervenor funding for SEMP, DuBois stated: "We got a lot more out of the energy conservation proceedings put on by the DEC, because there was a commitment of dollars, time and program."

[82] Bill jacket, Laws of 1978, Chapter 707, letter dated July 25, 1978.

[83] Interview with Senator Dale Volker, August 26, 1986.

[84] Laws of 1976, Chapter 820.

[85] Ibid.

[86] Bill jacket, Laws of 1976, Chapter 819, letter to Judah Gribetz, Governor's Counsel, July 9, 1976.

[87] Bill jacket, Laws of 1976, Chapter 819, letter dated July 2, 1976.

[88] Bill jacket, Laws of 1976, Chapter 819, letter dated May 24, 1976.

[89] Ibid.

[90] Laws of 1976, Chapter 819, Article 3.

[91] A number of the individuals interviewed described the transfer of planning jurisdiction to the SEO as a "power grab" by SEO Director James LaRocca. However, the central point here is that the PSC's state of deadlock left it vulnerable to a diminution of its responsibilities.

[92] Interview with Howard Shapiro.

[93] Ibid.

[94] New York State Legislative Annual 1978, pp. 17-18. "Governor's Messages to the Legislature". (My italics.)

[95] See Lee Metcalf and Vic Reinemer, Overcharge, New York: David McKay Co., 1967, for an analysis of rate-padding by investor-owned utilities, especially Chapter 7.

[96] Barry Commoner, The Poverty Of Power, New York: Bantam Books, 1976, p. 61.

[97] Report of Member Electric Systems of the New York Power Pool, Section 5-112, 1974, Vol. 3, p. 45.

[98] Duane Lockard, "Mine Safety and Strip Mining", America's Energy, Robert Engler, ed. New York: Pantheon Books, 1980, p. 41. See also, "The UMW: Need Past Be Prologue?", p. 50, in the same volume; Robert Engler, The Brotherhood of Oil, New York: New American Library, 1977, especially pp. 38-39; and Barry Commoner, The Poverty of Power, pp. 73-75.

[99] Those individiuals were Frank Breseler, Howard Shapiro, and Ray Hull.

[100] Interview with Ray Hull.

[101] Ibid.

[102] Interview with Terry Fox and Nancy Klein, PASNY, July 7, 1986.

[103] Interview with State Senator Dale Volker.

[104] Ibid.

[105] Interview with Frank Breseler, July 8, 1978.

[106] Ibid.

[107] Interview with Francis McNally, June 20, 1986.

[108] Interview with Richard King.

[109] Interview with James Parmelee, July 24, 1986.

[110] Interview with Judy Enck, August 8, 1986.

[111] Ibid.

[112] E. E. Schaatschneider, The Semi-Sovereign People, Hinsdale, Ill: Dryden Press, 1975, p. 3.

[113] John Kenneth Galbraith, Economics and the Public Purpose, Boston: Houghton Mifflin, 1973, pp. 39-40.

[114] "What To Do When The Atom Comes To Town", Donald C. Albright, Public Relations Journal, July 1965, pp. 16-20, Vol. 21. Also, the televison, radio, and newspaper advertisements sponsored by Niagara Mohawk in support of Nine Mile II indicates the amount of resources devoted to particular projects. The activities of the US Committee for Energy Awareness illustrate the modern industry-wide public relations approach.

[115] Philip Selznick, TVA and the Grass Roots, Berkeley: University of California Press, 1949; Victor Hobday, Sparks at the Grass Roots, Knoxville: University of Tennessee Press, 1969; Erwin Hargrove, TVA: Fifty Years of Grass-Roots Bureaucracy, Urbana: University of Illinois Press, 1983.

[116] David Myhra, Whoops!/WPPSS. Washington Public Power System Nuclear Plants, Jefferson, North Carolina: McFarland & Co., 1984, p. IX.

[117] John Kenneth Galbraith, American Capitalism, Boston: Houghton Mifflin, 1956, p. 137.

[118] John Kenneth Galbraith, The Anatomy of Power, Boston: Houghton Mifflin, 1983, pp. 72, 154.

[119] Richard Hellman, Government Competition in the Electric Utility Industry, New York: Praeger Publishers, 1972; Richard Harold Longshore, The Power Authority of the State of New York: Accountability and Public Policy, Ph.D. Dissertation, Syracuse University, 1981.

[120] Interview with Marilyn DuBois.

[121] Gabriel Kolko, The Triumph of Conservatism, Free Press, New York, 1963, p. 3.

[122] Ibid.

IV. CORPORATE PLANNING AND POWER-PLANT SITING

The creation of the Article VIII proceedings for the siting of major steam-electric plants pressured the PSC 149-b planning process toward greater citizen input. In the case studies analyzed here, there is abundant evidence that the greater role given to intervenors in power-plant siting led to an expanded public role in other aspects of energy planning. Consequently, the Power Authority and the investor-owned utilities developed strategies in response to the increased citizen input, in order to maintain control of the overall planning process. The Article VIII hearings dealt with several issues, including aesthetics, environmental impacts, alternative fuels, and economics. But in keeping with the central theme here concerning the struggle for control of the planning process, the emphasis will be placed upon the testimony on need for new generating capacity and for conformance with New York State's long-range plan.

The intent behind the Article VIII proceedings was to establish one-stop licensing of major steam-electric plants. From the utilities' perspective, Article VIII was the result of an effort to facilitate plant licensing by removing the need to receive approval from a plethora of local and State agencies. On the other hand, citizen intervenors--primarily environmental groups--desired an arena where they could

systematically investigate the utilities' plans and bring their resources to bear upon the siting proceeding.

The purpose of the discussion in this chapter is to illuminate the reciprocal impact of citizen input on corporate planning by focusing upon a number of case studies of Article VIII proceedings. The Power Authority's response to citizen opposition to its proposed Greene County nuclear plant will be of particular interest, because it serves as a measure of this public authority's receptivity to citizen participation.

In addition, common corporate planning practices such as materials purchasing, labor contracting, and project financing can have the effect of imposing a fait accompli upon attempts by community organizations to oppose these projects. Consequently, particular attention will be paid to such efforts by the Power Authority in the Greene County case, to determine the extent to which citizen participation is circumscribed by the practice of corporate planning.

Finally, the environment within which this and the other case studies are occurring is fluid, in the sense that forecasts for electrical demand were undergoing significant changes. It is also fluid because citizen groups were pressed to investigate and to offer alternatives to the proposed projects--such as conservation, load management, and use of renewable resources. Consequently, the alternatives proposed by citizen groups will be discussed,

to provide a contrast to the vision offered by utility energy-planning. The advantage of this approach is that it promises to illuminate both the dynamics of corporate planning and the potential offered by an energy policy generated through citizen initiative.

The same foci will be examined in the case study of the Sterling nuclear power plant proposed by Rochester Gas and Electric and New York State Electric and Gas, both investor-owned utilities. Besides considering the impact of the fait accompli and the changes in load forecasting, this investigation of the activity of these investor-owned utilities in the Article VIII proceedings further will sketch in the logic and dynamics of corporate planning--serving to illustrate the significant differences between investor-owned utilities and the public corporation in terms of attitudes toward citizen participation.

The third case study here is of the Nine Mile II nuclear power plant, proposed initially by Niagara Mohawk Power Company. This project is significant, first of all, in that its licensing preceded the initiation of the Article VIII process, thus serving as a standard for the way in which private utilities conducted project planning in the absence of the Article VIII citizen-oversight provisions. Secondly, since it eventually was financed through a consortium of five IOU's, the viability of this project in the face of public opposition affected the entire State

electrical system. Finally, as a project which experienced a cost overrun exceeding 1800 percent, the Nine Mile II nuclear plant provides evidence of the cost impact of citizen opposition, as well as evidence of rate-base padding. Whenever appropriate, these and other projects will be compared in an effort to discern the common features of corporate planning and citizen intervention.

THE GREENE COUNTY NUCLEAR PLANT

The Power Authority of the State of New York was not immune to the changes in the political environment wrought by the convergence of the environmental and citizen-participation movements. Beginning in 1972, when the Power Authority Act was amended to provide for the construction of base-load generation to supply the Metropolitan Transportation Authority (MTA) and the New York City Transit Authority, PASNY assumed a major role as supplier of electricity for the New York City metropolitan area. Concurrent with this larger role were plans by the Power Authority to build several base- and peak-load power plants in the Catskills and downstate New York. The Power Authority's Article VIII application for a nuclear power plant in Greene County demonstrates both the inflation of load forecasting characteristic of electric utilities in the 1970's, and the efforts to circumscribe citizen input in energy-planning.

The Power Authority drew upon several sections of its

enabling legislation and amendments in making the case for the Greene County nuclear plant. From Section 1001 of the Power Authority Act came the argument that the need for obtaining and maintaining a dependable electric-power supply is a matter of public concern. Section 1005 calls upon the Power Authority to maintain and operate hydroelectric projects to provide for the needs of municipalities and rural electric cooperatives, "to attract and expand high load factor industry,"[1] and to maintain an adequate supply "for maximum utilization" of hydroelectric projects. The Authority claimed here that the Greene County power plant was a needed addition to the State's electrical-supply system.

And as mentioned above, the Power Authority Act was amended again in 1972 to allow PASNY to construct base-load plants for the MTA and NYCTA, which served as the centerpiece of the argument for the plant in the joint Article VIII and Nuclear Regulatory Commission hearings. A 1974 amendment to the Power Authority Act lent further weight to this argument. Because this amendment "declared that there is a shortage of dependable power capacity in the southeastern part of the State,"[2] PASNY was mandated to provide base-load generation to maintain a dependable supply of electricity for the Metropolitan Transit Authority, the New York City Transit Authority, the Port Authority of New York and New Jersey, New York State government offices, U.S.

Government facilities, and other public corporations and companies within the New York City Metropolitan area.

The development of project planning culminating in the Greene County Nuclear proposal began subsequent to the 1972 Power Authority Act amendment, when in September 1972 Stone and Webster was selected as the engineering consultant to assist in plant site-selection. Stone and Webster issued its initial report on April 23, 1973, after studying 32 sites around New York City and along the Hudson River. The Power Authority's conception of how the needs of the metropolitan area best could be met is stated in the report, which "assumed for purposes of site analysis that either one nuclear or two fossil plants were appropriate sources of power."[3] In 1974, after further amendments to the Power Authority Act, Stone and Webster's final report recommended the construction of one fossil plant--to be on line by 1982--and a nuclear plant which would be on line by 1984. Then on November 13, 1974, Power Authority Trustees "unanimously adopted a resolution determining the need for additional base generating facilities consisting of one nuclear and one fossil fueled plant."[4] This statement of justification-of-need for the plant became a pivotal issue in this siting proceeding, because the Authority's position was that no further evidence was required on the need issue, as was clear in their opening statement:

> Such Resolution adopted by the Trustees of the Application is pursuant to Section 146[f] of the

> Public Service Law, conclusive upon the Board with respect to the question of the need for facility. Therefore, the Rules and Regulations pertaining to public need are not required to be met in the Application. Insofar as the Application contains data and studies relating to that subject, they are submitted for informational purposes only.[5]

Due to this position taken by the Power Authority, no citizen review of the need determination would have been possible in the Article VIII proceedings. However--at the insistence of the intervenors in the siting proceedings--the Nuclear Regulatory Commission's hearings on the Greene County plant were held jointly with New York State's Article VIII hearings, allowing those intervenors to participate in the consideration of that issue. Despite the lack of public review at the State level, the Power Authority was compelled to alter its justification for the Greene County plant in the NRC hearings. And as noted above, the controversy generated by the Greene County Nuclear project led ultimately to the imposition upon the Authority of the same requirements in Article VIII proceedings as for the investor-owned utilities. Because the Power Authority was involved in the project planning for this generating station for over four years before the hearings began, these alternations in the justification for the project appear as illustrations of how corporate planning functions.

The Power Authority envisioned four projects to meet the need for electrical demand in southeastern New York: the Greene County Nuclear plant; a fossil fuel plant at Arthur

Kill, Staten Island; a pumped-storage hydroelectric plant at Prattsville; and an extra-high-voltage transmission line from Massena to Marcy, New York, designed to carry power downstate from Quebec. These proposals were in addition to the new capacity of the Astoria 6 oil-fired plant and the Indian Point 3 nuclear plant, which PASNY had acquired from Consolidated Edison in 1974. Because these plants all were proposed during the same time period, every major fluctuation of electrical demand in the New York City metropolitan area became cause for a reexamination of the need issue. Consequently, PASNY arrived at other justifications for the Greene County nuclear plant as the hearings progressed.

H. Lee Davis, a citizen intervenor in the Greene County nuclear case, noted that in the original proposal for the plant in the 149-b Report, the MTA growth in demand was the key point for establishing need. However, the MTA's need changed significantly between the conceptualization of the project and the opening of the hearings--actually months before the hearings began. Herb Field, editor of the Catskill Daily Mail, described how the Power Authority had tailored its load forecast to justify the Cementon plant on the basis of increased subway ridership in New York City:

> It completely overforecast the amount of subway expansion that would occur ... and entirely ignored the considerable effort the Metropolitan Transit Authority [MTA] is making to reduce the amount of energy required for subway locomotion. Not satisfied with the MTA's own estimation of its

> needs, PASNY expanded the projection to nearly twice its original size.[6]

Davis noted that by the conclusion of the testimony on the need issue--which actually was never resolved--the Power Authority had completely changed the justification, arguing that the plant was needed to support the entire New York State electrical system.[7] Throughout these transmutations, the Power Authority was extremely reluctant to entertain intervenors' arguments that alternatives could be the answer.

Further criticisms of the Power Authority's determination of need for the plant were made by H. Lee Davis's wife, Pauline, in the opening of the joint hearings. Pauline Davis noted that there had not been even a check on PASNY's load forecasting in the PSC 149-b reports. She stated:

> Let me point out, in connection with what I said previously, that when the Power Pool hired NERA [National Economic Research Associates, Inc.] as a consultant to develop an independent demand and energy forecast for the 1976 long-range plan report, even NERA didn't do an independent report on PASNY's data--they just accepted what PASNY had presented.[8]

After indicating that the plans of the MTA for subway-service expansion had been postponed, and that the Power Authority had shifted its statement of need to base it upon the needs of other Power Pool members, Davis turned to Consolidated Edison's load forecast. She quoted from the New York State Public Service Commission's Opinion No.

76-22, Case 26985--Long Range Electric Plans, on Consolidated Edison's long-range plan:

> The company is experiencing a declining load factor, recognizes the need to press every reasonable load management opportunity and has expressed a commitment to that end.[9]

Various intervenors raised questions concerning the nature of the Power Pool's plans for more generating capacity. Pauline Davis noted that the Public Service Commission in the same opinion had expressed reservations about the 22-percent reserve margin deemed necessary by the Power Pool. She also called for the member utilities to pursue conservation and alternative energy sources more seriously.[10] In addition, she urged the hearing examiners to "bear in mind that PASNY's immediate plans for Greene County already include a pumped-storage plant, transmission lines capable of being uprated to 765 kv, and the real possibility of a fossil fuel plant on a site overlapping the alternate nuclear site in Athens."[11]

Emerson Mead pointed out the connection between the proposed nuclear plant and the pumped storage plants, and expressed concern about the impact of these plants upon the region:

> One pumped-storage plant has been built and PASNY has applied for a license to build another near Prattsville, Greene County. Studies have been made for several more in the area... Nuclear power plants, 765 KV lines and pumped-storage plants will mean the end of the tourist industry in the Catskills.[12]

Another citizen intervenor, Geoffrey C. Ryan of

Prattsville, argued that the Power Authority's claim of need for the plant for the New York City metropolitan area was suspect. He cited declines in area population and electric usage, as well as the cancellation of 145 subway runs by the Metropolitan Transit Authority as of August 1976. Ryan then went on to explain why it still would be determined that there was sufficient need for the new plant:

> The Power Authority says it has the customers and that is sufficient need.... In effect, that is how PASNY operates. It can always claim needs, because it has customers looking for a cheaper product than private taxpaying utilities can provide. The New York Power Pool wants to multiply the Catskill generating capacity from 450 megawatts in 1970 to 10,000 by 1990. The Cementon and proposed Clay-Hill pumped storage plant and the new Balboa [sic] plant would only account for 30 percent of that capacity. That means approximately eight more plants would be needed in the region. Virtually all of this energy is slated for use outside the area, and even outside the State, with virtually no benefit to the local community.[13]

These citizen-intervenor comments indicate that in utility planning, there is little or no consideration of end uses of electricity. Also, the impacts upon communities slated for such extensive construction of generating plants and transmission lines elicits insufficient concern.

Because the proposal was for a nuclear plant, the public expressed a great deal of concern at the outset of the hearings on the safety issue. However, those citizens groups that became formal intervenors in the proceedings chose to avoid making nuclear power the central issue in this case. H. Lee Davis described the strategy of these

intervenors for the hearings:

> We studied past cases before we went into this. Anybody who brought up safety and radiation issues was done. We went in to introduce need. We were planning on attempting to introduce need anyway.[14]

The intervenors pooled their efforts under an umbrella group--Citizens to Preserve the Hudson Valley--which assigned issue areas to different groups to prevent overlap. After the open public hearing in which most individuals expressed concerns for the nuclear industry's safety record, the intervenors avoided dealing with radiation and safety issues. The strategy was to focus on the issues of need, alternate means--including the use of coal, solar energy, other fuels, conservation and efficiency--and aesthetics, with an emphasis toward performing a cost-benefit analysis of need. This strategy would take into account the issues of aesthetic impact on the Hudson River Valley and Catskills, as well as the alternate means to meet the electrical needs. Toward that end, they contracted with Energy Systems Research Group to perform an assessment of the need for the plant.

Lee Davis indicated that this consultant asked the various users of Power Authority electricity for projections of demand, the sum total of which did not add up to PASNY's forecasts. In addition, intervenors pointed out the "Catch-22" of the proposed nuclear plant in terms of its impact on system reliability. In Davis' words:

> If you had a bigger plant, you needed bigger reserves. It was plain at the time, with their own figures, that they already had excess.[15]

During the time preceding the opening of the public hearings, the Power Authority engaged in project-planning activities that raised citizen concerns about the legitimacy of the siting hearings themselves. For instance, PASNY had advertised in the December 16, 1976 issue of Engineering News Report for equipment bids for the plant. One intervenor questioned how PASNY could engage in such an action before the hearings began, citing a December 30, 1976 article in the Greene County News:

> Catskill. The New York State Power Authority continues to advertise for bids on equipment for its proposed Greene County Nuclear Power Plant as if permission to construct the plant had been signed, sealed and delivered.[16]

It must be noted that by the time these hearings were being conducted and these issues were raised, the Power Authority already had been engaged in project-planning for close to five years. As noted above, PASNY contracted with Stone and Webster to assist in plant-site selection in September 1972. In the opening statements for the proceedings, PASNY General Counsel Scott B. Lilly submitted that Athens and Cementon had been identified as principal candidates for the nuclear plants in a 1973 study, and further studies had indicated Cementon to be the preferred site. Various air-quality and environmental studies were initiated in May 1973, along with the preparation of the

Article VIII application. The Power Authority filed the actual application both to the Nuclear Regulatory Commission and the New York PSC in September 1975, which was not docketed by the PSC until August 1976.

Another intervenor noted that while the pre-hearing conference was going on in September 1976, it was announced that Eastman Dillon, a New York brokerage firm, was floating the bond to build the Greene County nuclear power plant, causing the intervenor to question the legitimacy of the hearing process:

> It shows the integrity--what does this look like to the public when the bond issue is being voted [sic] to build this plant? Is this a charade? Or do you gentlemen have the ability to listen to all these people being listened to here tonight and be sincere in your decision?[17]

New York State Assemblyman Larry Lane raised the same concern with regard to the Power Authority, noting that it had engaged in similar activities in connection with a controversial proposed 765-kilovolt transmission line in Northern New York:

> I was at a hearing in New York last week where the transmission lines was a great subject. I know for a fact that the New York State Power Authority exerted its power, went ahead and ordered equiment for those power lines prior to getting acknowledgement and approval from Public Service....
> The question was asked down there, what would you do with this equipment if you had been turned down by Public Service? The answer to that question was we would have sold it to private utilities in the state, just like that.[18]

H. Lee Davis commented with regard to the attitude of

the Power Authority and its consultants on the project that "they were extremely rude when they went on people's land. They damaged one farmer's property. Ran roughshod over the people."[19] In addition, the Power Authority was not reluctant to utilize political resources in order to exert pressure for plant approval. Davis noted that on PASNY's part, the "number of lawyers and backup at hearings was tremendous" and that the Authority was very arrogant in its reaction to the hearing procedures and in its handling of people. Speaking in connection with tne impact of the bond issuance, equipment purchases, and engineering outlays by the Power Authority, Davis argued that it had a significant dampening effect on the efforts of the intervenors to raise funds from the public:

> People would say that they've spent this much, it won't be stopped. It would make people throw up their hands.[20]

Finally, the Power Authority tried to use construction labor unions in an effort to exert political pressure upon critics and local politicians. Davis stated that construction unions were "used hand and foot" by the Power Authority to intimidate town boards. There are several other examples of such activities by construction unions supporting nuclear power-plant proposals. Construction unions picketed in Albany when the Public Service Commission and the Legislature were considering a halt to Nine Mile II's completion. An intervenor in the proposed New Haven nuclear

power-plant case, Linda Clark, stated that the unions had chartered buses for the picketers to engage in these efforts.[21] Also, several local construction unions filed statements in support of the Cementon nuclear power-plant during those hearings.[22]

The intervenor groups' response to these tactics was to exert pressure also upon elected officials by activating the public to express their views on this issue. The long-term strategy of Citizens to Preserve the Hudson Valley was to engage in educational efforts to inform the public on the terms of the nuclear-power debate. The group sponsored public forums up and down the Hudson River Valley, engaging in face-to-face debates with spokesmen sent from the Power Authority. This educational effort was conducted for seven years, "from the time they said they were planning the project until they cancelled."[23]

These efforts resulted in a tremendous expression of opposition to the PASNY project and to nuclear plants in general in the Mid-Hudson region. Almost 700 people were present at the opening of the public hearings on the Cementon plant in January 1977, making the attendance "one of the largest ever to appear on the question of siting of a nuclear power plant anywhere in the country."[24] In the afternoon opening session there was approximately a 3-2 majority of statements in opposition to the plant, and over 80% of those speaking in the evening session were in

opposition. By that time the counties of Ulster, Dutchess, Greene, and Columbia already had passed resolutions opposing nuclear power, as had eighteen local governing bodies in the region.[25]

The opponents of the Cementon plant marshalled the public sentiment against PASNY into political channels. Lee Davis stated, "We had to become political in the sense of asking candidates for a position on this issue."[26] One incumbent congressional representative was targeted by the intervenors as being unacceptable with regard to his position on the Cementon plant, and consequently received less than 200 votes in Greene County. By far the intervenors' most significant action was their attempt to get legislation enacted requiring the Power Authority to prove the need for its projects. This legislative amendment first was introduced in 1977 and passed almost unanimously in the legislature--only to be vetoed by Governor Carey. As noted in Chapter Three, the Public Service Commission had desired more information from the Power Authority concerning its expansion plans since the advent of the 149-b process in 1973. However, it took concerted action by the intervenors in the Cementon case to force legislative action on this issue.

Citizens to Preserve the Hudson Valley launched an effort to require PASNY to prove need for its projects while the joint NRC/New York State Siting Board hearings were in

progress. Their argument in support of the legislation was based on the impact of Power Authority activities upon citizen attitudes toward government as the most significant reason it should be passed. The tenor of their communication with the Governor's office reveals a profound distrust of the Power Authority. For instance, the communication offered that the Governor's signing of the legislation would have the peripheral benefit of reinstilling in the citizenry a sense of faith in government, which had been damaged by the Power Authority's activities. The letter stated:

> The Power Authority [PASNY] has created in recent years an intense and passionate hatred toward it by many respected, solid citizens of the State. These citizens feel frustrated and rebellious. With good reason, they feel that legislation passed by previous administrations has made PASNY a law unto itself, answerable to no one.[27]

The intervenors raised a number of direct benefits to be gained from the legislation, notably that the requirement that the Power Authority prove need for its projects would provide legitimacy for the State regulatory system. Using the experience of Niagara Mohawk's Nine Mile II plant application as an example, they argued that a State requirement to show need was necessary because the Nuclear Regulatory Commission has "an obvious bias...to see that nuclear plants are built."[28]

Second, the intervenors maintained that enactment of this legislation would make the joint hearings more viable

by bringing State and federal regulations closer together. Thus, in response to the Power Authority's claim that the legislation would violate the Power Authority Act by threatening covenants with its bondholders, the citizen's group noted that the Power Authority had been in support of a 1972 legislative amendment to provide for payments in lieu of taxes to municipalities--when it had previously been held that the Legislature "would not limit or alter the rights vested in the Authority" with respect to bondholders or those with whom PASNY had entered into contract.[29] Furthermore, they argued that since PASNY had not acquired any land, the legislation should not affect bondholders. Finally, the intervenors pointed out that the Power Authority's changes in the justification of need for the Greene County plant had cast considerable suspicion on its operations.

In a hearing on April 20, 1977 called by the Assembly Committee on Corporations, Authorities, and Commissions, the Power Authority responded:

> ... the Authority's high load manufacturing customers have built new or expanded facilities with the expectation they would continue to receive Authority power...[30]

But the intervenors raised the point that the Power Authority was in no way constrained from providing the information to substantiate this statement. They stated:

> Surely the need can be documented. If so, PASNY has no problem; if not, they are engaging in expensive speculation, or perhaps outright fraud.[31]

In the same hearing Public Service Commission Chairman Alfred E. Kahn pointed out the potential problems posed by the Power Authority's exemption from the determination of need under Articles VII and VIII. First, he noted that long-range planning is affected by the fact that PASNY does not follow the same reserve margin policy as the Power Pool, meaning that "the decision about how much backup capacity there ought to be, and the burden of providing it, falls upon the privately-owned companies."[32]

Second, since the Power Authority need not specify the loads it intends to serve by its proposed plants, the Public Service Commission and the Power Pool could not be certain that their plans were adapted to PASNY's. Citing the Authority's plans for the Greene County nuclear plant and for the Arthur Kill fossil-fuel plant, Kahn observed that the Public Service Commission had no available information concerning the size of the loads to be served or their anticipated growth; and noted that this left Consolidated Edison vulnerable in the transfer of its loads to the Power Authority. Thus, another cost of the Authority's exemption, according to Kahn, is that "PASNY's decision to build a plant could leave its partners in the Power Pool with excess capacity, the financial burden of which would have to be borne mainly by their customers."[33]

As serious as the aforementioned concerns were for Kahn regarding the viability of the long-range planning process, the most serious conflict between the Power Authority's exemption and the Siting Board mandate concerned environmental protection. Kahn's analysis here deserves to be quoted at length:

> What definitely could be a problem would be if PASNY's broad definition of need, on which it claims exemption--a definition we vigorously dispute--were to prevail. It is arguing that it has the right to decide unilaterally what **kinds** of plant to build. It is our staff's view that the law placed on a siting board the responsibility to see to it that the kind of plant the Power Authority proposes to build conforms to the statewide plan, in so far as fuel mix and the economics of fuel choice, total growth in demand in the State, and the timing of additions to capacity are concerned. It seems to me clear we cannot have effective statewide planning, under Commmission or Siting Board control, if we cannot even inquire in **detail** into how, precisely the Power Authority's proposed plants are consistent with the statewide plan.[34]

Thus--in terms both of the distortions introduced into electric-system planning and of the increased difficulty of achieving energy self-sufficiency due to the lack of public controls over mode-of-generation and fuel mix decisions--the breadth of the Power Authority's claim of exemption from State regulation constituted a major challenge.

Two conclusions may be drawn from this citizen groups' attempt to have the exemption removed. First, the Power Authority's justification for the continuation of the exemption, which relied upon the argument that bondholders' interests would be compromised, indicated the strength of

Ann Marie Walsh's argument concerning the influence of the bond market on the behavior of public authorities. Second, the Legislature's 1977 endorsement of the repeal of PASNY's exemption from the requirement to prove need for its generation facilities demonstrated the effectiveness of citizen action in the legislative arena. As has been shown, the effectiveness of citizen intervention in public policymaking is influenced greatly by the extent to which there are mechanisms for the direct accountability of public officials to organized public-interest groups.

While Governor Carey vetoed A6523 in 1977, the questioning of the Power Authority's justification for the Greene County nuclear plant continued. H. Lee Davis stated in a letter to a newspaper editor that the New York Power Pool's figures in the 1977 149-b hearings indicated their 1977 electric-generating capacity showed a 39-percent excess over summer peak demand, and a 59-percent excess over winter peak demand. At the same time, the Power Authority was conferring with other states--as far away as Ohio--for the sale of excess electricity.[35]

The Department of Environmental Conservation extended the questioning of PASNY's need determination by requesting the Siting Board to review the need for the Greene County plant. In support of that request, the DEC staff argued that "the original justification for the plant in 1974 has completely disappeared."[36] The Power Authority's original

proposal on the need for the Greene County plant was based upon a projected Metropolitan Transportation Authority demand of 2300 megawatts by the year 2000, which, according to PASNY's own projections had been reduced by more than 1200 megawatts by 1978. DEC Attorney Carl G. Dworkin elaborated upon the DEC's request:

> Now they say they want to build the nuclear facility to supply Con Edison and other private utilities and also to retire older oil plants. But since the Greene County case started, the total needs of the State as estimated by the New York Power Pool for the year 1996 have declined from 43,550 megawatts to 34,660 megawatts, a reduction equivalent to more than seven Greene County plants. We just cannot understand why the Authority continues to insist that they need this power.[37]

Further evidence of how sensitive the Power Authority was to citizen oversight of its need determination is found in its position regarding opposition groups' attempts to gather information from Power Authority customers. In January 1978--three months previous to DEC's request for review of the need issue--the senior attorney for the Power Authority charged that a consultant hired by Mid-Hudson Nuclear Opponents had been engaged in improper discovery practices. The consultant, Energy Systems Research Group, was contacting the municipal electric-utility customers of the Power Authority to find out their projected power needs. Power Authority attorney Charles Pratt claimed that Energy Systems Research Group was contacting the Authority's customers without identifying itself as a representative of

the intervenors in the case. Pratt wrote that this "attempt at discovery during the course of the hearings, based on concealment, is improper" and "constitutes a vexation and harassment."[38]

In his reply to the Power Authority, Mid-Hudson Nuclear Opponents' attorney Robert Kafin stated:

> Of course, if you had been willing to furnish us with the information concerning your customers which we have asked for, and are legally entitled to, it would have been unnecessary for us to make inquiries of your customers.... By the way, Mr. Pratt, what are you trying to hide?[39]

The Power Authority's activities in restricting the effectiveness of citizen intervention on the need issue revolved around the frequent changes in justification for the Cementon project over the course of the hearings. While the Trustees' resolution to determine need for the project was based upon the projected increase in electrical demand by the MTA, the paucity of efforts by the Power Authority to take into consideration the impact of MTA's conservation measures belied its own claim. In essence, the Power Authority simply adopted the figures provided them by Consolidated Edison when the responsibility for the MTA load was shifted.

Further, it called into question PASNY's mandate as a champion of countervailing power. While under cross-examination by attorneys for the Department of Environmental Conservation, expert witnesses for the Power Authority were unable to demonstrate how the MTA's implementation of load

management and conservation techniques would impact upon PASNY's load forecasts.[40] Indeed, the extent of the Power Authority's experts' unfamiliarity with the requirements and impacts of New York State's Energy Law in terms of energy conservation is striking. Overall, the attitude which emerged in the hearings from the Power Authority's testimony concerning the efficacy of such mechanisms as load management, interruptible rates, and improvements in efficiency of appliances was that it was not the Power Authority's responsibility to pursue any of these methods of reducing electrical demand. Indeed, one Power Authority witness on the issue of need flatly stated that PASNY was a wholesale power supplier, and that the responsibility for energy conservation rested with consumers.

From a historical perspective, then, the Power Authority's commitment to its original mandate--to extend electrical service--was so powerful that when conservation and citizen oversight became the public-power movement's objectives, the Authority stepped up its resistance to mandated conservation. PASNY's efforts to engage in conservation and load management, as undeveloped as they were at this time, appeared to have been modeled after those of the investor-owned utilities under regulation by the Public Service Commission. Clearly, the pressure of public intervention in electric-system planning under the 149-b process and Articles VII and VIII had some positive impact

upon the implementation of conservation efforts and improvements in load-forecasting for the IOU's. In this sense, the lag between the initiation of these activities by the investor-owned utilities and the Power Authority lends credence to the argument concerning the benefits of public intervention in electric-system planning.

Besides demonstrating a marked lack of initiative in pursuing load management for the MTA and its other public-preference customers in the New York City metropolitan area, the Authority failed to demonstrate an interest in the load-management efforts of investor-owned utilities purported to be Greene County power customers. As the load forecasts of the New York Power Pool--and particularly of Con Edison--decreased from 1976 to 1978, the Authority repeatedly expressed skepticism about the effectiveness of load management and about the accuracy of load forecasts.

The Power Authority also maintained that because it was a wholesale power supplier, its load-forecasting methodology could not be compared with that of investor-owned utilities. This was a curious reversal of the yardstick-competition idea. In other words--since there were no other large wholesale suppliers in the New York State generation system, both the Public Service Commission and citizen intervenors had no standard from which to examine the validity of the Power Authority's load-forecasting methodology.

The Power Authority clearly was involved in major revision of its forecasting methodology, apparently for the reason that there was increased scrutiny of its forecasting due to Article VIII. Just as the investor-owned utilities had found themselves under pressure to justify their electrical demand projections and, further, to explain their forecasting methodology, PASNY was pressed to provide more information in the proceedings about how it had arrived at the determination of need for the Cementon plant. DEC attorney Carl Dworkin became increasingly critical of the Power Authority's reluctance to divulge the assumptions behind its load forecasting. PASNY's response was to argue that the Article VIII proceedings were not the place to challenge load forecasting and reserve margins, since the 149-b proceedings provided that forum.[41] Significantly, the Power Authority often was criticized in the 149-b hearings for the paucity of its submissions.

The 149-b proceedings became embroiled in a controversy over PASNY load forecasting, with the Authority taking the position that the 149-b Report was not to serve as the basis for its case. Although it was submitted as a portion of the record, the Authority refused to allow the entire report as evidence because it could then become the basis for an examination of PASNY's IOU customers' need for electricity. Thus, the Authority's position was to allow only a fraction of the Report to be included--despite the fact that it now

claimed statewide need as the basis for the application.

CEMENTON PLANT - CONCLUSION

In March, 1979, the Power Authority Trustees decided to shelve their plans for a Cementon nuclear plant, citing as the primary reason for their decision the 76% rise in projected cost of the plant from 1977 to 1979.[42] Why the increase in cost? The Power Authority claimed that citizen intervention by environmentalists in the Article VIII proceeding was a significant factor, because the delay in licensing served to put the Authority in a worse position for materials and construction costs. The NRC Staff had said that the natural-draft cooling towers planned for the plant would have an adverse aesthetic impact upon the view of Olana, an historic tourist attraction. Also, because the Cemention project threatened the closing of the Lehigh-Portland cement plant--with a consequent loss of hundreds of jobs--the NRC recommended that PASNY use another site.[43]

Lee Davis noted here that in their public statements, "they indicated that the procedures were time-consuming and costly to the Power Authority. They were all caused by them, not us."[44] At the same time, Davis indicated that "perhaps the Power Authority is very grateful to us for stopping the plant."[45]

THE STERLING NUCLEAR POWER PLANT

The original proposal by Rochester Gas & Electric Company for a construction license for new generation at Sterling, New York called for two fossil-fuel 600-megawatt plants. While the initial plan had been for an oil-fired plant, the 1973 OPEC oil embargo caused the utility to opt for coal as the fuel. At the same time, R G & E submitted a preliminary safety analysis report (PSAR) to the Atomic Energy Commission because it also was considering adding a nuclear plant exceeding 1100 megawatts in capacity. The tentative nature of the utility's plans was reflected in the Article VIII hearings as citizen intervenors, the Public Service Commission, and the Department of Environmental Conservation all directed attention to the utility's shifting plans and to its rationale for capacity expansion.

In the opening hearings, citizens questioned the need for the plants, the wasteful uses of electricity, and utility planning in general. The utility argued that despite the decline in demand after the OPEC embargo, it would need both 600-megawatt units to meet its own load and Power Pool reserve requirements. However, the spokesman for R G & E made it clear to the Siting Board that "if an application is made to the siting board for that (nuclear) unit, it would not be solely an R G & E application, but would be independently justified on a multicompany

basis."[46] In fact, R G & E was in the midst of negotiations with other New York State investor-owned utilities to apply for a nuclear plant construction license under a joint financing agreement. The significance of this proposal was that it seemed to obfuscate the need determination due to R G & E's reluctance to provide information from all of the IOU's involved in the proposal.

The debate over the issue of need for the Sterling plant was complicated by the vagueness of the R G & E proposal. The case made by R G & E was that the first 600 mw plant was needed by 1978 for R G & E only, and that the second plant would be needed by the early 1980's for the purpose of bolstering the New York Power Pool reserve. The common element of the Sterling proposals was that R G & E's load forecasting indicated significant growth in demand for electricity throughout the 1970's, and on into the 1980's. Consequently, the opponents' argument hinged upon their claim that the utility forecasting was flawed.

One witness for the DEC made the case that the historical-extrapolation methodology was built upon several flawed assumptions, including (1) high rate of population growth, (2) underestimating appliance saturation in R G & E's service territory, (3) vigorous economic growth, (4) the impact of energy conservation measures, (5) the failure to take into account the effect of price increases upon electricity demand, (6) technological advances in lighting

efficiency, and (7) the utility's rate structure as the cause for the problems with its forecast. He noted as evidence of the weaknesses of the R G & E long-range forecast that, based upon the utility submission in its 1973 149-b Report, the forecast "made less than nine months ago, was a full 10% above the actual peak."[47] Given the assumption that R G & E could purchase the same amount of electricity through 1985 that it was expecting to purchase in 1978, Harvey concluded that with the likely growth rate of 4% per year, R G & E would not need additional capacity until 1985.[48]

In response, the utility attorney was extremely critical of Harvey's assertions concerning load forecasting, and questioned his qualifications to testify on electricity-demand forecasting. Regarding appliance saturation, R G & E's attorney pressed the point that electric heat in its service territory was well below the national average, and that increases in cost of alternative heating fuels such as coal and oil would make electric heating more attractive. In addition, President Nixon's Project Independence was cited as an example of how "the substitution of electricity for direct use in fossil fuels, particularly oil and gas, was the major mechanism"[49] for achieving self-sufficiency in U.S. energy policy. Thus, the basic assumption underlying R G & E's case for expansion was that the major impact of the OPEC embargo of 1973 would be a significant

shift to electricity as an energy form, requiring substantial additions to generating and transmission capacity. An implicit assumption in the same arguments was that the short-term drop in electrical demand experienced since late 1973 was a temporary deviation from the norm. Fron this view, conservation measures would have minimal impact upon the demand picture in the long run.

The disagreement over the impact of the OPEC oil embargo provided the context for the struggle between the investor-owned utilities' control over electric policy, and the desire of public agencies and citizen's groups to have greater voice. Largely because it was the first Article VIII case, the Sterling proposal engendered a great deal of discussion regarding the intent behind the new siting process. Hearing Examiner Gottlieb noted that R G & E's major concern was "that we go through this long procedure, months upon months, and then we get certification, and then we start building a plant, and then we have all sorts of argument about detail."[50] While expressing his view that there was no guarantee against such an occurrence, the Hearing Examiner provided his understanding of how disagreements on detail would be resolved. Due to the insight it gives regarding the intent behind Article VIII, it deserves to be quoted at length:

> I foresee the parties getting together. I know that the staff of the Public Service Commission is not impractical. Sometimes in their cross-examinations you might pick up some implications

> which seem unusual, but actually when you get down to the concrete point of view, the Staff of the Commission, I know, are very practical people, and they are seeking that a job be done.[51]

In the hearing examiner's view, the role of the Siting Board and the function of the Article VIII process as a whole was not to be adversarial but rather to facilitate plant sitings, putting the opponents at a disadvantage. Given the streamlining of AEC nuclear power plant licensing occurring at the same time, there was a burden placed upon the opponents of the proposal to produce evidence that the 1974 decline in electricity demand was more than a temporary aberration. This helps to explain why the Siting Board granted initial certification of the plant in January 1978, despite repeated shortfalls between actual peak demand and forecasted demand. An additional claim by R G & E for certification, which is implicit in the statement above, is that the long planning horizon of the utilities necessitated early licensing, and no undue delay.

R G & E also expressed concern because there could be disagreement between the Department of Environmental Conservation and the Public Service Commission over the intent and operation of the Article VIII process. Because of R G & E's concern that public hearings and agency oversight would be excessive, the question arose of how the Siting Board would deal with conditional certification and with the overall implementation of the construction program. The following exchange between the utility attorney and a

witness for the DEC illustrates the Article VIII process's undefined nature at the time--as well as R G & E's concern about public hearings:

> Q. Is it your Department's position that the plan should provide that public hearings should be held for whatever reason in any particular phase of the plant, for example, the engineering of the waste discharge facilities?
>
> A. At this point I cannot answer that question.
>
> Q. Well, Mr. King, in light of the Examiner's earlier remarks concerning his view, at least, that the holding of public hearings subsequent to the certification would not be necessary, is it going to be your Department's position that when a disagreement among, let us say, the applicant, the Department and the Public Service Commission arises as to some aspect of the construction plan that public hearings be held?
>
> A. Absolutely? Absolutely, no. I cannot see into the future, and I do not know what may happen in the future, but there is no reason to not provide for a mechanism that may be helpful to all parties in the future on this.[52]

The Hearing Board's ruling on the intervenors' request for details on the SNUPPS plan and for details on the effect of rate structure upon electrical demand again illustrates the obstacles to effective citizen intervention. In the response to a formal interrogatory filed by the Sierra Club and Ecology Action of Oswego, the Siting Board maintained that the utility did not need to establish the case for the intervenors with its own witnesses, but that the intervenors would have to do so with their own expert witnesses. This ruling in effect made it more difficult for the intervenors to make their case that rate structure directly impacts

demand, because the IOU's resources then would not have to be shared with the Siting Board.

Regarding the request for information about the SNUPPS proposal, the Siting Board again ruled in favor of the Applicant, on the grounds that Article VIII proceedings were meant only to deal with proposals that had already been put in the form of a license application. The Applicant's statement here illustrates again how important the one-stop siting concept of Article VIII was for the utilities:

> How better could one-stop siting be destroyed than by allowing the parties in this proceeding and inviting the instant Board to evaluate and consider effects of a unit which is still very much in the planning stages...and therefore still hypothetical and, at any rate, the effects of which belong to the jurisdictional domain of a subsequent proceeding and subsequent Siting Board?[53]

THE SNUPPS PLANT

Rochester Gas and Electric eventually docketed its application for a nuclear power plant on behalf of Central Hudson Gas & Electric Company, Orange and Rockland Utilities, Niagara Mohawk Power Company and itself on February 28, 1975. At that time, the Applicant sought a waiver of the requirement to present a full package of information on Sterling to the Siting Board because of the redundancy of information on the Sterling site. In fact, R G & E offered the original Sterling fossil-fuel plant proposal as the mandated alternative site or source of power in this new Article VIII case.[54]

This proposal represented the trend toward corporatist planning in at least two respects: (1) the main systems and components of the reactor were to be of a standarized design developed by a consortium of five utilities, of which R G & E was a partner;[55] and 2) the financing of the unit also was through a consortium made up of the four New York State investor-owned utilities noted above. The impact of this consortium format for electric-system expansion was that it made questioning of need for the plant even more difficult--because the forecasting methodology, fuel mix, and pending generating-station applications by all of the utilities involved became factors in the decision on plant certification. The effectiveness of citizen intervention in this proceeding, then, hinged upon the intervenors' ability to obtain and evaluate information from all of the electric utilities, and to present their lack-of-need case on the basis of the entire consortium's case.

JUSTIFICATION FOR NEED

Rochester Gas and Electric argued in its original case that, based upon its load projections, there would be need for the Sterling power plant to be in operation in the winter of 1978-9.[56] At that time, R G & E stated that the increase in the demand for electric power was so dramatic that "within the next decade, it is anticipated that the State's generating capacity must nearly double to meet overall demand."[57]

Even in 1974, however, citizen intervenors questioned the utility's argument that the need for power was within its own service area. For instance, in the opening hearing, an individual speaking in opposition to the Sterling plant proposal observed that according to R G & E, "there is presently a 30% excess energy supply for the nine counties they service."[58]

In addition, one of the intervenors throughout the case, Ecology Action of Oswego, continuously questioned the company's claim of need, because the company argument presumed that "demand for electric power will continue to grow at the same rate as in the past."[59] The flaws of the historical-extrapolation method of load forecasting relied upon by Rochester Gas and Electric became increasingly evident as the hearings progressed, as intervenor groups presented alternative forecasts which turned out to be closer to the actual demand the utility reported in the Public Service Commission 149-b proceedings.

In particular, the Department of Environmental Conservation of New York State played a critical role in exposing the forecasting flaws and in undermining the utility's case for the plant. For instance, the DEC turned to the forecasting history of the major partner in the Sterling consortium, Rochester Gas and Electric, and discovered repeated problems with its methodology and results. Witness the company's methodological rationale for

forecasting in 1974:

> The Company does not foresee at this point the necessity for any elaborate modeling, elaborate data collecting methods, or expensive market analysis technique, which, in its opinion, would add very little to a method of projecting peak loads and energy sales which to date has been accurate, as well as economically reasonable for a period of years.[60]

The DEC noted in its brief that the winter peak forecast for R G & E in the year 1990 was 3218 mwe, based upon the extrapolation methodology used in 1974. By its 1979 Section 149-b filing, Rochester Gas and Electric's winter peak was projected at 1440 mwe.

In 1975, R G & E adjusted its commercial load forecast downward because of reduced population growth, future building-design measures for conservation, etc., leading to an annual compound-growth forecast of 6.6% for the period up to plant operation in 1985. At the time of the refiling for approval of the Sterling plant in 1979, the utility had reduced drastically its growth forecast for the same period of time to 3.8% per year.[61]

R G & E lowered its winter peak forecast significantly in its 1976 PSC 149-b filing--to 2100 mwe--but continued to defend its historical-extrapolation methodology:

> We...believe that quantitative analysis through econometric modeling tempered with judgement is a useful, additional input to our own time-tested techniques. At this time we have not found evidence that econometric modeling will provide more reliable results.[62]

Then the winter peak forecast for 1990 rose again, in

1977, as the utility cautioned against substantial revision of long-run forecasts on an annual basis. This same caveat was expressed in the 1978 filing by R G & E; but the winter peak forecast was reduced by over 20%, to 1690 mwe, without explanation.

At the time of the case's reopening in 1979, R G & E was still defending its traditional methodology, while again lowering its winter peak forecast by over 17%, to 1440 mwe. Witness this extract from the Power Pool's 1979 filing to the PSC:

> The principal method of forecasting for the residential and industrial classes has been the analysis of survey data and historical trends, while the commercial class has been the analysis of historical sales trends with adjustments to the historical growth rates to reflect the changes in real price of electricity.[63]

The DEC subsequently concluded that not only did this history of forecasting error prejudice R G & E's credibility, but also that "reliance on Applicant's forecasts in the past would likely have led to the approval of vast overcapacity."[64]

THE STERLING NUCLEAR POWER PLANT

Consequently on appeal, the Department of Environmental Conservation noted that the IOU's forecasts through the New York Power Pool had declined to a level at which the Sterling nuclear plant was not even needed by the delayed target date of 1989.[65] It thereupon offered two recommendations for consideration by the Siting Board.

First, if a later time frame were elected for a target date, certification could be delayed:

> This would allow the Board to determine whether the nuclear option is still viable, whether the costs for the nuclear option have changed significantly, and whether any new developments [in alternative technologies, in breakthroughs in coal combustion efficiencies, gasification or liquefaction, etc.] warrant a review of decisions previously made.[66]

Secondly, the DEC had a recommendation for the Board concerning the original nuclear power plant proposal, based upon the turn of events since the certificate was vacated:

> If the Board believes that reliability criteria mandate 1989 operation, then it should consider the possibility that the nuclear option will not be able to achieve same. The legacy of Three Mile Island could be long delays, significant cost increases or even a complete elimination of the nuclear option for meeting future energy needs.[67]

Thus, the DEC's position with regard to this project clearly was that there were so many questions about the IOU's load forecasting and about the viability of the nuclear option that certification of the Sterling plant, as proposed, was unjustified.

There are two general conclusions which may be derived from the DEC's intervention regarding load forecasting in the Sterling case. First, the fact that the Applicant continued to rely upon its historical-extrapolation method of load forecasting throughout the period of consideration of the application--despite the preponderance of evidence of the this methodology's weaknesses in the light of actual

developments--suggests that it served as more than an analytical tool. In other words, the historical-extrapolation methodology had become so central to the planning of the utilities that they were unprepared to give up on it.

Second, the Article VIII siting process opened up the possibility for the Department of Environmental Conservation to expand its involvement in power-plant siting to deal with the need issue. Further, DEC Attorney Carl Dworkin gave a reminder that the energy-policy process is open to other considerations besides loss of load probability. The other factors in planning included:

> 1. Minimizing the cost of service to consumers; 2. Limiting the use of oil as a fuel for generating electricity; 3. Protecting and enhancing environmental quality and advancing the health and safety of the state's citizens; 4. Fulfilling the system requirements of the individual electric utilities; and 5. Developing practical and environmentally compatible generation from renewable resources....[68]

THE UTILITY RESPONSE TO CITIZEN INPUT

The hearings on the proposed Sterling plant revealed a number of mechanisms employed to circumscribe the input of citizen groups, the Department of Environmental Conservation, and the Public Service Commission. For instance, citizens observed in the opening hearing that R G & E had changed its plans from building a coal plant to building a nuclear plant in Ontario in much the same way that it appeared to be altering its plans in relation to

Sterling.[69] R G & E was making it more difficult for the public to present its case because of these changes in its plans.[70]

In fact, one individual argued that the public needed more time to prepare its case because R G & E had had so much time prior to the opening of the hearings--when it was planning the project--to narrow the range of questions left upon which citizen groups could have decision-making influence.[71]

The dependency of the agencies and consultants on the Applicant was demonstrated repeatedly. For example, the site-selection specifications employed by an independent agency came from Rochester Gas and Electric.[72] Further, the DEC included in the record a statement of the difficulties it experienced in obtaining information from R G & E when preparing its case on need for power.[73]

Also, considering the fact that this was the first Article VIII proceeding, R G & E's position throughout was that the Siting Board had no say about rate structure and objected to questioning on the relationship between rates and demand. As a result, the PSC was compelled to submit a formal interrogatory for information on the changes in rate structure and upon their effect on demand. R G & E's position was that the Atomic Energy Commission was the agency responsible for deciding the effect of that relationship.[74]

In fact, R G & E spokesmen argued that the Article VIII licensing proceeding needed to be consistent with the reality of utility planning.[75] Less than six months after making this plea, R G & E announced the impact of the costs of the licensing process in terms of the plant's delay. At that time, R G & E maintained that it was the high cost of nuclear-plant construction which led it to participate in negotiations with four other investor-owned utilities in the State to build a nuclear plant at Sterling on a consortium basis.[76] This also is why R G & E was considering making the second plant at Sterling nuclear, even though it had applied for permits for two coal-fired plants.

In terms of Atomic Energy Commission licensing, R G & E was making its request a part of the SNUPPS proposal for generic AEC licensing of six nuclear plants. This clearly indicates that R G & E was moving in the direction of industry-wide system planning. This theory is borne out in the presentation of the applicant's case for need for the project, particularly for the second plant. While R G & E claimed that the first unit proposed in Sterling would be utilized entirely to service its own load, the second plant was justified on the basis of its contribution to providing for statewide electric needs.

Thus, in this first Article VIII proceeding, the need justification on the basis of statewide demand first emerged as a mechanism to circumscribe public criticism of utility

forecasting and of construction plants. When a staff counsel for the Public Service Commission asked an R G & E expert witness for load-growth specifics for the industries in its service territory, the utilities' counsel successfully objected on the basis that the Commission was requesting proprietary information. Further, when the same expert witness was questioned concerning whether he was knowledgable of the effects of energy conservation upon load growth for the other investor-owned utilities in New York State, his response was in the negative. In effect, this R G & E witness referred to the submission of the New York Power Pool in the 149-B Report, which did not specify the methodology for how the impact of energy conservation was factored into energy forecasting in a quantifiable manner.[77]

After receiving over 8,000 pages of hearing testimony--including material from the 1975 and 1977 149-b proceedings--the hearing examiners recommended to the Siting Board that the applicant should receive the Sterling plant license. Specifically with regard to the question of need, the Siting Board's finding was that there would be need for approximately 1150 megawatts in 1984-85. This opinion was fully supported by the PSC staff, while the DEC staff contended that the actual time frame for need would be later. What is most interesting, considering the eventual date of the Sterling proposal, is that the citizen-group

intervenors--Ecology Action of Oswego, New York Public Interest Research Group, and Genesee Valley People's Power Coalition--all disputed the need for the Sterling plant based upon the indication from the 1977 149-b Report that "the utilities' forecast of peak demand in the time period pertinent to this application has changed considerably over the past three years."[78]

Despite the contention of the intervenors, the Siting Board was not convinced that load-management techniques such as time-of- day pricing would have a significant impact upon cutting peak load growth.[79] In addition, the Siting Board pointed out that the uncertainty of licensing of other proposed plants was a factor in their ruling that the Sterling license should be granted. Finally, the Siting Board emphasized that since population growth and economic development are such significant factors in electrical demand, "any extraordinary and unanticipated reduction in demand associated with conservation efforts or rate restructuring could easily be offset by forecasting errors in the population growth rate or the rate of economic development."[80]

In response to the granting of certification for a nuclear plant at Sterling, various citizen organizations petitioned for a Siting Board rehearing. Joining Ecology Action of Oswego's petitions were the Syracuse Peace Council and Ecology Action of Tompkins County, which previously were

not parties to the Article VIII proceeding. Ecology Action of Oswego's petition was multifaceted, questioning the decision-making procedures of the Siting Board and whether the Opinion had sufficient factual basis, as well as questioning the determination of need for the plant. Ecology Action alleged that the Siting Board received "secret testimony and argument" from advisory staff which was used in reaching the decision in favor of certification. In fact, Ecology Action suggested "that a decision was reached at one meeting of the Siting Board and was changed at another",[81] without Ecology Action and other parties' having the ability to cross-examine or to rebut the statements of their advisory staff. With regard to this claim, the Siting Board's opinion stated that the decision was based exclusively upon the public hearing record "as suggested by certain matters that were officially noticed."[82]

Ecology Action's contentions that there were defects in the decision of the Siting Board hinged upon two factors: (1) certification of a nuclear plant with significant uncertainties concerning nuclear-waste disposal and plant decommissioning, and (2) the Board's taking into account an announcement by the Federal government of its "intention to accept title to spent nuclear fuel and to make arrangments for its long term storage."[83] Regarding both of these issues, the Siting Board opined that the record was

sufficient to grant certification for the plant--indicating that the uncertainties concerning nuclear-waste disposal and plant decommissioning clearly were beyond the scope of the Article VIII procedure.

Finally, the intervenors objected to the decision of the Siting Board on the bases of determination of public need and of conformance with long-range planning objectives. Both Ecology Action of Oswego and the Genesee Valley People's Power Coalition contended that there should be a rehearing because "new" evidence raised doubts about the need for Sterling-SNUPPS. While the Siting Board opined that rehearing was not required simply because "some new circustance has arisen, some new trend has been observed, or some new fact discovered",[84] the magnitude of change in the need case was so great that, with this evidence, a limited rehearing was granted.

When compared to the information reflected in the January 1978 Opinion of the Siting Board, the new evidence--the New York Power Pool's 1978 Section 149-b filing--indicated to the Board that "the participating utilities in the Sterling-SNUPPS proceeding now project excess capacity in 1986, even without construction of Sterling, whereas we found only three months ago that 906-1211 mw deficiency was likely in that year."[85] Thus, the case was reopened in May 1978 on the basis of a reexamination of the issue of need for the plant.

STERLING - CONCLUSION

In its "Opinion and Order to Deny Certification for the Sterling Project", the Siting Board concluded that since the full capacity of this proposed plant would not be needed until the mid-1990's, the plant constituted an unreasonable building-in of flexibility. Further, the Siting Board expressed its opinion that the applicants had not come forward with evidence that the plant should be built because of the projected economics of early construction or for the purposes of oil displacement.[86]

In addition, the considerations of the Siting Board included in this opinion are interesting as an illustration of the impact of citizen intervention. First of all, the Board suggested that the coal-fired facility--given the shorter construction cycle and capacity--might have been a more appropriate proposal, considering the decreased demand projection of the early 1980's. Second, the Board noted the lack of clarity regarding federal government policy on nuclear-power issues as a determining factor in overturning the earlier decision, and thereby vacating the certificate.

The Board stated that the majority had voted in favor of granting the Sterling plant certificate in January 1978 because of federal government assurances that there would be a resolution to the nuclear-waste-disposal problem, as well as a federal assessment of the health and safety risks of nuclear fuel as opposed to coal. Then the Board decided

that the federal government had not fulfilled its promise regarding those issues.

The Board then concluded:

> The nuclear-waste problem still remains in virtually the same unresolved status that was an important factor in the decision of two of the Board members to dissent from the majority opinion in January 1978, granting a certificate for the construction and operation of the Sterling-SNUPPS facility. Clearly, that question would have to be considered fully before we could consider reinstating the authorizations granted in January, 1978 even if we could find that a generating facility was needed.[87]

Finally, the Board noted that the ramifications of Three Mile Island would have to be taken into account regarding future licenses. Although the Board wanted to make it clear that "nothing in this decision is meant to suggest that a majority of this Board is persuaded that a nuclear generating plant...cannot be certified in New York State at some time in the future,"[88] it stated that waste disposal and the restoration of public confidence in nuclear power would have to be dealt with by the federal government before a nuclear plant would be certified in New York State.

From the citizen-group point of view, the position was argued from the very beginning of the public hearings that they had insufficient time and resources. In the opening hearing, several individuals requested that more time be granted and funds be provided to citizen groups to build a case for the opponents. One individual, Bob Stone of the Power Line Action Committee, called for a postponement so

that his group could participate in both the Article VIII and Article VII hearings. He noted that even with the legal notice requirement, the citizens interested in the R G & E proposal received notification only six weeks prior to the commencement of the hearings and many still were not aware of details concerning the plant site or transmission-line route. While they had interested a local radio station in carrying programs on the hearings, they still were hard-pressed to organize their case. Stone's concluding statement expressed plainly the sentiment of citizens organizing in opposition to the proposal:

> The power companies have invested enormous amounts of time and money in preparing their case and we feel we should at least have time.[89]

Also, from the opening of the hearings the view was expressed that the utility already had engaged in activities which would suggest to potential opponents they were faced with a fait accompli: land purchases at the site and for entry roads are but one example of the activities complained about by citizen intervenors. R G & E's advertising also was said to lend the impression that the proposal already was approved, according to some citizen intervenors; and, finally, one spokesperson stated directly that R G & E was undermining public input at the hearings.[90]

While a fully developed citizen agenda for the New York State electric system was not evident in the testimony, some obvious citizen concerns illustrate basic disagreements

with utility planning. First, several individuals questioned exactly where the demand was for the proposed Sterling plant. They stated unequivocally that they were opposed to having to accept the risks and costs attached to the project while the electricity actually was needed elsewhere.[91] Second, there were repeated allusions to the need for the project, indicating that R G & E's proposal was based more on profit motive than on needs.[92] Some citizens also pointed out that R G & E's assessment at the Ginna plant in Ontario was low, meaning that it did not live up to its claim as a mechanism for lowering local citizens' taxes. Of course, a substantial portion of the hearings was devoted to potential environmental hazards and aesthetic values threatened by the plant, which indicates the importance of these values for citizen intervenors. Finally, Ruth Kaplan of Ecology Action of Oswego called for the reversion of Fair Haven park to public ownership so that there would be public stewardship of that land.[93] This clearly suggests that some intervenors were thinking beyond the immediate situation, in the direction of long-term public-resource planning.

The Sterling power plant proposal by Rochester Gas and Electric Company provides an excellent illustration of the move toward corporatist planning in the 1970's. First, the utility attempted to justify its demand projections through the historical-extrapolation method of load forecasting,

even when its own load projections were in serious question. Second, as the company's case for need for the project lost credibility, there was a shift of strategy whereby it became a joint project of four investor-owned utilities--consequently altering the case for need and strengthening links between the utilities' project-planning operations. Third, the efforts to undercut public opposition through the fait accompli are particularly noteworthy here because the Sterling proposal was the first application under the PSC Article VIII process. Thus, the applicant's strategies reveal the corporate sectors perspective regarding the parameters of public involvement in energy planning. Fourth, the considerable overlap between PSC 149-b planning information and the case presented for this construction license demonstrate both the threat to corporate autonomy posed by public planning, as well as the utilities' search for strategies to circumscribe that public input. Finally, the revocation of certification of this project in 1980 demonstrates the impact of citizen response to corporatist planning.

SITING AND ENERGY COLONIES

One complaint of the citizen intervenors in the Sterling case was the practice of siting nuclear plants in areas which, like Sterling, are not densely populated. With the high demand forecasts at the time, there were plans for over a dozen light water reactors to be constructed in New York

State. This meant that rural areas with access to large supplies of cooling water were targeted for nuclear plants during the decade. Primarily the sites were clustered along the shore of Lake Ontario, like Sterling and Nine Mile II; or along the Hudson River, like Cementon. In effect, some rural sites were considered to be energy colonies, having been designated by utility planners as sites for multiple nuclear plants.

This concept of the nuclear park with multiple plants was the nuclear industry's answer to the difficulties it experienced with citizen opposition. The advantages of this concept espoused by nuclear-industry planners were the facilitation of security and the ability to draw upon a group of trained, experienced technicians operating standardized reactors in remote areas. Alvin Weinberg of Oak Ridge extended this vision of the energy future to include the notion of a nuclear priesthood: a self-selected group of trained technicians who operate the reactors without resort to citizen input. Gerald Garvey advocated social planning geared to a nuclear energy economy, almost the fruition of Robert Moses' vision from 1961. The visions of Weinberg, Garvey and others represent the lengths to which nuclear-industry planners would go to facilitate plant siting. They also prompted the development of citizen groups who united in opposition to utility plans and in support of their own views concerning electric-system planning objectives. After the

discussion of the Nine Mile II nuclear plant, the competing visions of corporate and democratic planning will be considered below in turn.

THE NINE MILE II NUCLEAR PLANT

The Nine Mile II nuclear power plant, originally proposed by the Niagara Mohawk Power Company, was one of the last to be licensed before the imposition of the Article VIII proceedings in New York State. Consequently, it serves as a rich example both of the kind of energy policy which emerges without the public scrutiny and input facilitated by Article VIII, and as a control study for demonstrating the impact of the Article VIII process. It also serves as a reminder of the cost-overrun factors unrelated to power-plant licensing. Since Nine Mile II eventually was sponsored by a consortium of five investor-owned utilities, it also provides a clear model of inter-corporate planning.

Niagara Mohawk Power Company first filed an application for the Nine Mile II plant on June 15, 1972. In testimony before the Atomic Energy Commission in 1973, Niagara Mohawk Power Company claimed that the 1020 megawatt nuclear power plant would be needed solely for its load in the 1980's. This testimony was disputed by Duane Chapman of Cornell University, who used econometric analysis as the basis for his findings that the load would be nowhere near what Niagara Mohawk had predicted it would be in the 1980's. Despite the conflicting evidence presented by Chapman and others, the AEC granted a

construction license to Niagara Mohawk for Nine Mile II.

Six months after the licensing, Niagara Mohawk was engaged in negotiations with several other investor-owned utilities for the sale of shares of the Nine Mile II project, ultimately retaining 41% of the project for itself. But because the various Nine Mile II partners continued with plans for construction of other projects during the remainder of the decade, while load forecasts were being revised steadily downward, the project constantly was scrutinized. For instance, during every rate-increase request before the Public Service Commission by Central Hudson Gas and Electric Company, New York State Assemblyman Maurice Hinchey, (Democrat, Saugerties) acted as an intervenor, questioning the validity of C H G & E's assumptions concerning its projected load and Nine Mile II's overall cost impact on ratepayers.

Even in the absence of the Article VIII process for determination of need, the issue constantly was raised by intervenors through the rate-revision process. By 1981, Assemblyman Hinchey was joined by the State Consumer Protection Board in calling for a PSC review of the project's continuation, because of the changes in projected cost and in-service dates for the nuclear plant. Niagara Mohawk originally had estimated that Nine Mile II would be in commercial operation by 1979, at a total construction cost of $382 million. By 1981, the in-service date was pushed back to 1986, with a total estimated construction cost of $3,657

million--over a 900% increase.

Meanwhile, Niagara Mohawk had reached its all-time peak usage of installed generating capacity in February 1979, without Nine Mile II.[94] Both Central Hudson Gas and Electric and Rochester Gas & Electric already were receiving Construction Work in Progress (CWIP) as part of their rate base for Nine Mile II, while LILCO and New York State Electric and Gas were receiving CWIP in their rate base for other plants in construction due to their hardships in paying for Nine Mile II. Intervenors also pointed to the financial strains of the project as a reason why Nine Mile II should not be continued:

> A July 1981 First Albany Corporation Electric Utilities-Credit Analysis report concluded that the financial strain emanating from Nine Mile Point Two was the major factor which had led to declines during 1980 of the utilities' credit ratings.[95]

For obvious reasons, the planning and implementation of the Nine Mile Point II project had such significant impact on rates and on the economy of the New York State electrical system that public intervenors employed a variety of mechanisms to attempt to halt it. As these actions were met by countermeasures from the co-tenants of the project, the entire public energy-planning system of New York State again was altered to restrict citizen input--primarily demonstrated by the lapse of the State Energy Master Plan process.

THE INTERVENORS' POSITION

The Atomic Safety and Licensing Board of the Atomic Energy Commission permitted three intervenors in the original proceeding. One of these was the Atomic Energy Council of the State of New York, permitted to intervene as an interested State agency, which took a pro-license position; another was the Environmental Defense Fund, engaged in intervention limited solely to the issue of rate restructuring. The Environmental Defense Fund was attempting to use this application for a plant license as an example of the problems attendant with declining block-rate pricing.

The third intervenor group referred to here is Suzanne Webber and Ecology Action, Inc., who raised the issues of alternative sources of energy, need for power, and cost-benefit analysis. Included under alternative sources of energy here were energy conservation measures as an alternative to the plant, which the Board had previously excluded from consideration as an issue.[96]

While the AEC staff and the Board raised other issues such as radioactive effluents and fuel densification, for the purposes of this discussion the need for power and alternative-energy sources issues is of the greatest interest.

Suzanne Webber and Ecology Action Inc. contended that neither the applicant (Niagara Mohawk) nor the AEC staff gave adequate consideration to alternative sources of energy. In

the Board's decision, a number of alternatives were advanced and dismissed. Wind power was rejected because of the lack of certainty over the state of technology available to meet the utility's projected needs. A second reason for rejecting wind power as an alternative is interesting given the subsidies for the nuclear industry and the eventual cost overruns for the Nine Mile II nuclear plant. Witness the following statement by the Board:

> In addition, extensive research and development costing an estimated $410 million of government and private funds would be needed to make the system feasible.[97]

Solar energy was rejected because its cost was estimated at $8,000 per house, considered to be uneconomical. There is no statement in the decision concerning the number of households that would be affected considering the demand for electricity expected with the plant, nor concerning the impact upon construction employment with the installation of solar heating.

Also, Niagara Mohawk felt that they would be unable to purchase additional power from another utility because of the uncertainties in the industry concerning "long-term load forecasting and completing plant capacity conditions on schedule."[98]

The argument put forth by the intervenors in general was that through vigorous energy-conservation measures, the 1100 megawatts of electricity produced by the proposed Nine Mile II plant could be offset. Several specific measures were noted,

including:

> [a] Revision of the Niagara Mohawk rate structure; [b] Developing new standards for the installation of buildings; [c] Developing new lighting requirements for buildings; [d] Adopting energy-efficiency labeling of new appliances, and/or developing new standards for appliance efficiency; [e] Restricting the use of electricity for space heating, air conditioning, and industrial and commercial operations and processes; [f] Load staggering and load shedding; and [g] Elimination of promotional advertising.[99]

The Environmental Defense Fund's sole contention concerning energy conservation as an alternative to the proposed plant was that it could be accomplished by revision of the rate structure from a declining block-rate basis to a "peak load" or "time-of-day pricing" structure. Despite the evidence presented of the success in reducing load in France through time-of-day pricing[100]--and the results of other studies showing the sensitivity of industrial and commercial consumers to price of electricity--the Atomic Safety and Licensing Board concluded that there was "not a sufficient basis on the information developed to date to make a determination whether the use of time-of-day pricing would in fact reduce the peak demand for electricity in the applicant's service area."[101]

THE BOARD'S DECISION

The Licensing Board went on to dismiss other alternatives suggested by intervenors. It was argued that the adoption and enforcement of insulation standards by local municipalities and government might provide a barrier to the effectiveness of

this reform. Additionally, the Board felt that the amount of potential reduction in demand couldn't be quantified--in large part because many of those insulation improvements already were being implemented. In effect, the Board was dismissing the potential of these energy-conservation methods because of insufficient experience with them to determine their effectiveness in a quantifiable form.

Such was the argument made concerning appliance-efficiency standards, wasteful uses of energy, and solar energy. The Board similarly dismissed the intervenors' argument that demand reduction could be achieved through terminating promotional advertising, by stating that the "Applicant terminated its promotional advertising program in 1969."[102] It is interesting to note that when the Nine Mile II project became beset with difficulties in the early 1980's, Niagara Mohawk did in fact engage in promotional advertising for the plant.

The Board included a number of Niagara Mohawk's energy-conservation activities which, it concluded, had been at least partly successful in cutting electrical demand. Among these were support for the minimum insulation standards before the State Public Service Commission; the abolishment of its marketing department and replacement by a customer-relations department; and the reduction in waste heat in industrial buildings. However, these various conservation measures and the apparent drop in electrical demand in 1973-

1974 were not controlling factors in the Board's Nine Mile II plant decision.

Similarly, the intervenors' contention that Niagara Mohawk had not presented sufficient evidence concerning the need for power was noted, but did not carry enough weight to convince the Board to turn down the application. The basic controversy over need for power revolved around the forecasting methodology. Niagara Mohawk conducted its load forecast "based on extrapolation of historical-demand data" and predicted that Nine Mile II would be needed by the end of 1978.

Utilizing an econometric-demand analysis, the intervenors suggested that the plant would not be needed until 1992. Even using the extrapolation method, the intervenors claimed that the plant would not be needed until the mid-1980's. The difference in historical-extrapolation methodology's results is that Niagara Mohawk assumed an increase in electrical demand at an exponential rate which was unchanged in the past ten years, while the intervenors' extrapolation took into account such effects on prices as population change and per-capita income. However, the Atomic Safety and Licensing Board dismissed both of the forecasting methodologies:

> In view of these factors in the inherently speculative nature of forecasting peak demand, the Board found that the forecast of the parties do not provide a reliable basis for determining the year of need for [Nine Mile] Unit Two.[103]

The compelling argument for Nine Mile II came to be based

on Niagara Mohawk's ability to substitute nuclear power for increasingly expensive fossil fuels.[104] In fact, the Atomic Safety Licensing Board argued in its conclusion that the need issue should not be contended before that board for the licensing proceeding. This opinion ran counter to the Atomic Safety and Licensing Appeal Board's ruling in Vermont Yankee Nuclear Power Corporation [Vermont Yankee Nuclear Power Station], [AB-179, RA1-7-2, 159, 175, February 25, 1974] which stated, "at the outset, inquiry must be made into whether there exists a genuine need for the electricity to be produced."[105]

But because of the fact that applicants could substitute fuel sources for proposed plants, the Atomic Safety and Licensing Board argued that need for power was not a decision within its jurisdiction. The Board stated:

> ...the question can be raised of whether it isappropriate for the Agency to consider the need for power on a utility's system in an individual licensing proceeding. In this connection, determinations of the need for power and need for the plant could be viewed as matters which should be left to the utility's management, which must exercise its business judgement to discharge its obligation to provide reliable electrical service.[106]

From the proposition that it should not be involved in examining need for power as an issue--and responding to the claim that Nine Mile II could replace expensive fossil-fuel generation--the Atomic Safety Licensing Board approved the license. This occurred despite evidence that Niagara Mohawk had not come forward with the information that the New York

Power Pool had directed it to implement energy-conservation programs going beyond even those suggested by the intervenors.

Besides the failure of Niagara Mohawk to implement energy-conservation measures advocated by the New York Power Pool--which was only revealed in cross-examination of the reopened record on energy conservation--the Applicant's response to intervenor criticisms of its demand forecast actually undermined the credibility of the utility's argument. Niagara Mohawk entered into evidence a survey of new electric loads expected to come on line during the mid-1970's. The transparency of this evidence--and the contradiction with Niagara Mohawk's introductory rationale for need--were noted by the Licensing Board:

> These new loads would purportedly almost double the short-term growth rate, making it about 9% and bring the demand projections back on line by 1978. **However, this argument appears to constitute, at least in part, an abandonment of the company's reliance on its historical demand projections.**[107]

It appears that the uncertainty of the methodology of extrapolation from historical trends was so great that Niagara Mohawk felt compelled to develop other rationales for its proposed project.

Niagara Mohawk's position concerning its reserve capacity with Nine Mile II in operation on schedule also reflected its own doubt concerning the accuracy of its demand forecasting.

With a startup of Nine Mile II prior to the peak-demand period in the winter of 1978-1979, the utility calculated a 38.7% installed reserve capacity. Even without Nine Mile II, it projected a reserve of 22.1%,[108] while the New York Power Pool recommended reserve margin was only 18%. The @UX(Initial Decision) of the Atomic Safety and Licensing Board contains this explanation of Niagara Mohawk's rationale for need, despite the excess capacity:

> Applicant reasons that, while its demand projections show an adequate reserve margin in 1978 without Unit 2, the year 1978 should still be considered the year of need on the ground that there is a possibility that the 1978 demand may exceed the Applicant's forecast and that the startup date of the facility may be delayed.[109]

Despite the fact that Niagara Mohawk persisted in making its case for approval of the Nine Mile II license upon need for power in 1978, the Licensing Board dismissed the intervenors' arguments against approval--basing its decision upon the need for sources of energy to replace fossil-fuel-generating plants. Even while recognizing the impact of energy-conservation measures upon demand, and while noting that energy demand is affected by price increases for fossil fuels, the Board concluded that it could not rely upon either the Applicant's or the intervenors' forecasts to determine a year of need for the plant "with any degree of reasonable certainty."[110] Consequently, the year-of-need was not the basis for the majority opinion of the Board, but rather actual need, which was determined "regardless of growth or no growth

in demand for electric power."[111]

The "energy crisis" became the determining factor in the decision in favor of the license. Because of the potential to replace fossil fuels with nuclear-powered generation, the majority of the Board opined that approval of the license was prudent. Thus--as we saw with the PASNY application for the Cementon plant--intervenor challenges to claims of need-for-power made by the utilities resulted in shifts both in demand forecasting and in the basic rationale for the projects. The difference between the Nine Mile II experience before the ASLB in 1974 and PASNY's experience with the Joint Licensing Board in 1979 is that, in effect, the Licensing Board in the former situation actually shifted the rationale and made the case for Niagara Mohawk.

Later history of the Nine Mile II project bears out some of the observations made here concerning the costs of corporate planning. For instance, shortly after receiving its license, Niagara Mohawk went in search of partners for the project--selling an aggregate share of 59% of the plant's capacity to four other investor-owned utilities. Construction of the plant was delayed by labor problems, by regulatory changes which called for retrofitting of additional safety equipment, and by a slowdown of the construction schedule by Niagara Mohawk.[112]

JUSTIFICATION OF NEED

The opposition arguments to the Nine Mile II license centered upon the question of need. Duane Chapman, a member of the Cornell Department of Agricultural Economics, testified before the ASLB concerning the inadequacies of Niagara Mohawk's forecasting methodology, which had resulted in the proposal for Nine Mile II. Chapman based his critique of the utility's extrapolation methodology upon his own demand-analysis methodology. Through looking at such factors as population growth, changes in industrial demand for electricity, and increasing price of electricity, Chapman detected a significant change in the Niagara Mohawk service area's load-growth pattern in the mid-1960's.

Due to declining rates of population increase, to decreasing factory growth, and to increased electricity prices after 1969, the peak-load growth rate decreased significantly by the beginning of the 1970's. Witness the following in reference to Niagara Mohawk's historical-extrapolation forecasting method:

> It is clearly inappropriate to include the early 1960's; system peak load grew 37% from 1960 to 1966, but 21% from 1966 to 1972.[113]

Consequently, he argued that the need for Nine Mile II would be considerably later than the 1978 date claimed by Niagara Mohawk. This could have been significant in the case for the plant, since the dissenting opinion called simply for a one-year delay in licensing the plant in order for the ASLB

thoroughly to review the electricity-demand forecast for the future. In addition, the historical-extrapolation methodology was so flawed that it actually helped to perpetuate Niagara Mohawk's declining-block rate structure.

The testimony of Duane Chapman et al. substantiated the intervenors' argument that the historial-extrapolation methodology of load forecasting was fundamentally flawed. Chapman's analysis revealed that there was a significant shift in demand in the Niagara Mohawk service area in the mid-1960's, which exposed Niagara Mohawk's case for need for the plant in the late 1970's as insubstantial. The conclusion of these intervenors was that, with conservation measures, the proposed Nine Mile II plant would not be needed--certainly not within the time frame claimed by Niagara Mohawk. There was considerable agreement with Chapman's analysis by the dissenters from the Atomic Safety and Licensing Board decision, who also argued that the decision to grant a license for the Nine Mile II plant should be postponed for at least a year in order to gather additional information concerning the need justification for the plant. Considering the fact that Niagara Mohawk began to negotiate with other investor-owned utilities to sell shares of the Nine Mile II plant within six months of receiving the license, it is clear that the intervenors' argument that there was not sufficient need for the plant was borne out. This claim is found in the testimony by Chapman et al., which states that:

> The rebuttal of Niagara Mohawk to the testimony rested more heavily on the desirability of substituting nuclear power for fossil fuels because of the "energy crisis", rather than upon the extra capacity needs predicted by their extrapolation.[114]

And the utility continued to forecast future load on the basis of the historical-extrapolation method long after the shift described by Chapman had occurred. But despite the granting of the Nine Mile II license, the issue of need for the plant persisted--plaguing requests for rate increases for all of the investor-owned utilities involved in the project.

THE EFFECT ON OTHER UTILITIES

One investor-owned utility consistently criticized for its participation in the Nine Mile II project was Central Hudson Gas and Electric Co. (C H G & E). The central problem with Central Hudson's rate increase requests was that in the mid-to-late 1970's it had excess capacity, but was contracting for even more capacity with the Nine Mile II project. Nevertheless, it persisted in requesting rate increases--attempting to justify those increases with future load forecasts in the area of 6.8%. This was occurring at a time when the real growth rate of electrical demand was closer to 2%.

State Assemblyman Maurice Hinchey charged the company with inflating its demand forecasts through statistical sleight-of-hand and by building in faulty assumptions. He also claimed that it ignored changes in electricity pricing. The faulty assumption that represented the most significant

impact upon demand was Central Hudson's projection that by 1985, 50% of the homes in its service area would have electric heat, and that 75% of new homes would have electric heat by 1996.

C H G & E made a further assumption for electric-heat use in commercial establishments:

> Their estimates of consumption of electricity for commercial electric heating forecasts an increase to **14 times** [1300% increase] from 1975-1985 [from 32.8 million KWH to 459] and to **51 times** [5,000% increase] from 1975 to 1995, all in only 20 years![115]

In addition, Hinchey cited the reluctance of Central Hudson to consider peak-load pricing rather than its declining block-rate pricing as another factor in the inflation of load forecasts, since it was estimated at the time that peak-load pricing could reduce demand by as much as 10%.

The effect of the joint construction of Nine Mile II by five investor-owned utilities--at a time when citizen intervention in energy policy was vigorous--was to provide cause for the examination of the load-forecasting methodologies of all of those utilities. Of course, one of the commonalities of their approaches to forecasting was the use of the historical-extrapolation method, which tended to regard the impact of the rise in energy prices after 1973 as an insignificant factor in future load demand. In addition, these utilities demonstrated a great reluctance to experiment with and to implement peak-load pricing as a tool in managing electrical demand. Finally, when called upon to justify

requests for rate increases or for additions to generating capacity due to anticipated increases in demand, these utilties engaged in efforts to justify their forecasts by consistently understating the potential of conservation.

As noted above, Central Hudson Gas and Electric Co. was criticized by intervenor groups for ignoring the weaknesses of its forecasting in every rate-request proceeding in the 1970's.[116] Because it was a participant both in the Nine Mile II and the Sterling projects while it was burdened with excess capacity, Central Hudson retreated into a defense of its construction program by noting its role within the New York Power Pool. In fact, as we observed with the Power Authority's shift of rationale for its proposed nuclear plant at Cementon, it was a common utility tactic to retreat behind the claim that their construction programs were designed to improve **system** reliability and to replace fossil-fuel generation for the entire Power Pool system.

From the perspective of regulatory authorities such as the Public Service Commission, later the State Energy Office; the Department of Environmental Conservation; and the Consumer Protection Board, as well as citizen intervenor groups, the resort to joint forecasting within the New York Power Pool and to justification for construction based upon contribution to a systemwide mix often was an extension of the "black box" forecasting which had existed prior to Articles VII and VIII and to the PSC 149-b and SEMP processes. Paradoxically,

however, projects such as Sterling and Nine Mile II compelled critics to look at the entire system in their efforts to discredit the construction programs of any particular utility, which led ultimately to more effective public rebuttal in the planning proceedings. In effect, it always was the intervenors who advocated the use of findings in the PSC 149-b or SEMP proceedings in Article VII and VIII hearings; while the utilities tended to treat the planning, siting, and rate-increase proceedings as mutually exclusive.

ALTERNATIVES TO NINE MILE II

The original intervenors involved in the Nine Mile II licensing claimed that a more appropriate plan of action toward meeting the changes in load would be to guide peak-load growth. One policy considered to have great potential was insulating homes more effectively to cut waste on heating. This measure was proposed to be introduced into the capacity-planning procedure such that the reduction in future electric heating capacity could be calculated into the load forecast.

Secondly, it was recommended that the company shift natural gas allocation from industrial customers to residential and commercial customers. Because gas heating and cooling requires about half of the BTU's that electricity requires, this measure would turn energy policy in the direction of consideration of end uses of energy. In addition, the diversion of natural gas away from industrial customers would compel industry to shift to other sources of

fuel such as coal and oil, and thereby produce an incentive for industrial-load management due to the expense of those fossil fuels.[117]

Finally, the main alternative proposed was to use econometric analysis in load forecasting, which quite clearly pointed toward the conclusion that--even without major conservation and load-management efforts--the year-of-need for a project the magnitude of Nine Mile II was at least a half-dozen years after Niagara Mohawk's projection.[118]

COST OVERRUNS AND THEIR IMPACT

Planning unchecked by public analysis and debate over assumptions of alternative futures resulted in a Frankenstein situation for the utilities participating in the Nine Mile II project. As cost overruns for the plant escalated, the co-tenants' risk of deflated bond ratings became greater. When licensed solely by Niagara Mohawk in 1974, the company's calculation was that it would be completed in five years at a cost of $381.7 million. Shortly thereafter, Niagara Mohawk maintained a 41% share for itself and parceled out shares of the plant to four other investor-owned utilities in these amounts: Long Island Lighting Company--18%; New York State Electric and Gas Company--18%; Rochester Gas and Electric Company--14%; Central Hudson Gas and Electric Corporation--9%. Note that this subdivision and leasing out of shares occurred after the Public Service Commission's 149-b planning and the Article VIII siting proceedings came into effect. Spreading

out the burden of financing Nine Mile II lowered Niagara Mohawk's financing requirements, so that by 1977 it was able to regain an A rating from one of the three major rating agencies.

By 1977 the co-tenants' estimate of cost had risen to over $1 billion for completion of the plant in 1983. Despite the decline of electricity demand which accompanied energy price rises between 1974 and 1977, the co-tenants persisted in the claim that there was need for the plant. Even Niagara Mohawk was beginning to recognize that the decline in electric demand was of long-term consequence, as is demontrated by its 1977 Annual Report:

> ...the conservation ethic, spurred by necessary increases in the cost of our services, is a restraining growth factor. Instead of a 4% growth projection, a 2.5% increase appears more realistic.[119]

In 1981, the Public Service Commission's review of the Nine Mile II project brought further escalation of the cost estimate. The utilities' 1980 estimate had risen to $3.7 billion for a plant which they stated would be completed in 1986. Regarding the rationale for continuing construction, the co-tenants were compelled to acknowledge the impact of energy conservation on electricity demand, and consequently based their case upon the plant's capability of displacing oil. The Public Service Commission's Power Division report of September 1981 is instructive in explaining the PSC's recommendation that "completion of Nine Mile Point II is

warranted."[120] The PSC's assumptions of capital costs for the plant of $4.9 billion with a 1987 commercial in-service date were significantly more liberal than the utilities' 1980 estimate, obviously leading to the expectation that there was a significant cause for the recommendation to complete the plant. That cause demonstrates the power of the fait accompli in regulatory policy. The PSC Report states:

> The amortization of sunk costs due to abandonment of Nine Mile Point II was a major factor in the economics. The 1981 present value of the revenue requirement for the sunk costs was approximately $1,900 million.[121]

At the same time that this evaluation was being prepared, there were ominous signs of the effects of the Nine Mile II project's poor planning. An editorial article authored by Executive Director Karen Burstein and attorney David Schlissel of the Consumer Protection Board spelled out the troubles ahead for the co-tenants. First--despite receiving instruction in avoidance of construction slippages--Niagara Mohawk still was falling behind schedule in 1981. Second, the boiling-water reactor used for Nine Mile II had no operating experience and a dismal construction experience, the most notable example of which being the Shoreham reactor with its own 3700% cost overrun at the time. The engineering work on both projects was done by the same company, Stone and Webster. Third, Nuclear Regulatory Commission Chairman Nunzio Palladino had "identified whole new areas of safety and quality concern that portend a significant price impact."[122]

Finally--and perhaps most significant for the development of corporatist electric-system planning--was the impact of the project's troubles upon the financial community. Already, in 1981, NYSEG's, R G & E's and Central Hudson's bonds had been devaluated.[123] LILCO was undergoing such criticism for its inefficiencies in the Shoreham project construction that it eventually pulled out of the Nine Mile II partnership in February 1984. And in April of that year, despite an October 1983 utility study conclusion that "the plant would still be worth the money to ratepayers even if its costs go as high as $6.3 billion", Rochester Gas and Electric Company also was considering the option of bailing out of the project.[124]

In short, the problems attendant with the Nine Mile II plant were generating tension within the investor-owned utility community in New York State, which threatened to disturb the corporatist consensus arrived at in the 1970's. (This development will be discussed in greater length in Chapter 5 when the evolution of corporatist planning is examined.) Of course, the co-tenants' efforts to maintain the project as a viable addition to the electric-generation system also produced such strains in the regulatory system that they might be argued to be the cause of the discontinuation of public planning, which occurred with the lapse of the SEMP process in 1983.

The Public Service Commission's role as the chief State regulatory authority over Nine Mile II deserves consideration

at this time. When the other co-tenants filed a joint petition with the PSC in 1976 for transfer of ownership of 59% of the plant after Niagara Mohawk had made known its interest in selling partial ownership, the PSC approved the transfer based upon two considerations: first, that the four proposed partners had need for additional capacity in 1983 (the in-service date in 1977); and second, because of the escalation of project costs, which could be more substantial than what Niagara Mohawk could continue to assume on its own.[125] Clearly, the PSC was acting in the interest of maintaining Niagara Mohawk's financial viability, while also providing the opportunity for other IOU's to add generating capacity. In 1977, the PSC staff for the most part was just beginning seriously to question the utilities' load-forecasting methodology; so the plans for additions to generating capacity by LILCO, NYSEG, R G & E, and Central Hudson were not out of line with PSC projections.

By 1982, the PSC's recommendation for completion of the plant was tempered by the implementation of three measures to monitor construction and to encourage cost control. These measures included the establishment of a permanent monitoring team to report on construction progess; the notification to co-tenants of strict prudency standards for construction costs with possible disallowance of "costs found to be unnecessary or due to mismanagement"; and the creation of the "incentive rate of return" (IROR) mechanism. The IROR would exclude 20%

of all construction costs which exceeded the target of $4.6 billion, set as a compromise between the utilities' estimate of $4.2 billion and the PSC staff's $4.9 billion.

The PSC decision engendered a controversy which led State Assembly Speaker Stanley Fink to hold a public hearing concerning the decision, in which testimony was presented by most of the parties to the PSC proceeding. The Speaker followed an analysis of this testimony with an appeal to the PSC in March 1982 to reconsider its decision--an appeal which was denied. Karen Burstein, Executive Director of the Consumer Protection Board, then appealed the PSC decision and was joined by several Democratic members of the Assembly. The State Energy Office memorandum concerning the contentions of the Consumer Protection Board indicates the PSC's position on citizen intervention in the Nine Mile Point II decision:

> The basis for the suit was the refusal of the PSC to allow intervenors in the NMPII case access to certain important staff work papers. These papers would have been critical to demonstrating that continuing construction of the plant was not justified.[126]

Although the court ruled with the PSC in this case, the Commission's credibility was damaged by its position in this controversy. Ultimately, PSC Chair Paul Gioia was replaced by Peter Bradford--Former Nuclear Regulatory Commissioner and Chair of the Maine Public Utility Commission--because of the intensity of public criticism of Gioia's close relationship with the investor-owned utilities.

In this sense, the PSC's activities in the Nine Mile II

case provide a classic illustration of the weaknesses of regulation without substantive public input. The PSC's position in the 149-b proceedings and the Article VIII proceedings shows by the late 1970's a dramatic contrast, in that citizen intervenors were able to go beyond the PSC's circumscribed scope of inquiry and action to consider more than rate impacts. When posed alongside the Sterling nuclear power-plant proposal to be discussed below, the ease with which the Nine Mile II plant was licensed and authorized to continue construction despite enormous cost overruns indicates the problems of corporate-dominated energy policy with insufficient public checks.

A final note on the significance of the Nine Mile II project as an exemplar of corporate planning is in order. Besides the massive cost overruns and the threat both to ratepayers and shareholders, the excess capacity even by utility accounts is unnecessary until well into the 1990's. Further, Nine Mile II resulted in setbacks to the extension of public input in energy policy because of the legislative stalemate over the plant. Perhaps more significant, however, were the assorted construction difficulties--which do not bode well for the plant's safe commercial operation. Revelations of drug and alcohol abuse by construction and security personnel, and charges of labor racketeering, have brought the plant's safety under increasing doubt. Since it is not the focus of this study specifically to evaluate these costs,

suffice it to say that just as the licensing of the plant was completed only at enormous cost because there were not effective means for citizen intervention--so the lack of public input and scrutiny of plant construction and operation provides for lesser checks upon the possibility of accident or of harm due to shoddy operations. In other words, more public input in the plant's licensing might greatly have diminished its costs had it conclusively been determined to be necessary. Also, mandated public input could well have facilitated construction and safe operation by lessening the possibility of expensive retrofitting.

Chapter Four - ENDNOTES

[1] Power Authority Act, Section 1005, Amended 1968.

[2] Power Authority Act, Laws of 1974, Chapter 369.

[3] Application to the New York State Board on Electric Generation Siting and the Environment, Vol I., May 18, 1977, Opening Statement, p. 7.

[4] Ibid, p. 6.

[5] Ibid, p. 7.

[6] "The Case Against More Power Plants", Empire State Report, July 1976, Herb Field, p. 246.

[7] Interview with H. Lee Davis, July 24, 1986.

[8] Joint Hearings by the Nuclear Regulatory Commission and New York State Board on Electric Generation Siting and the Environment, PSC Case 80006, p. 122, Pauline Davis.

[9] Ibid, p. 123.

[10] Ibid.

[11] Ibid.

[12] Joint hearings, Emerson Mead, p. 173.

[13] Joint hearings, Geoffrey C. Ryan, pp. 178-179.

[14] Interview with H. Lee Davis.

[15] Ibid.

[16] Joint hearings, Helen G. Hilzinger, p. 169.

[17] Joint hearings, William Tremper, p. 297.

[18] Joint hearings, Assemblyman Larry Lane, p. 248.

[19] Interview with Lee Davis.

[20] Ibid.

[21] Interview with Linda Clark, July 17, 1982.

[22] Joint hearings, pp. J-15, 21, 32, 76, 80-81.

[23] Interview with Lee Davis.

[24] "Nuclear Tug of War Begins", Woodstock Times, January 6, 1977, p. 2.

[25] Ibid.

[26] Interview with Lee Davis.

[27] Citizens to Preserve the Hudson Valley, letter in Support of Bill #A6523, August 2, 1977.

[28] Ibid., p. 2. The central element to this claim of NRC bias was that Niagara Mohawk proved to the satisfaction of the Atomic Energy Commission the need in its service area for Nine Mile II, then moved to sell 59% of the capacity to other utilities in the State within 6 months after being granted the license.

[29] Ibid, p. 3.

[30] New York State Assembly Committee on Corporations, Authorities and Commissions, On the Power Authority of the State of New York, April 20, 1977.

[31] Citizens to Preserve the Hudson Valley, letter in Support of Bill #A6523, August 2, 1977, p. 3.

[32] Testimony by Alfred E. Kahn before the New York State Assembly Committee on Corporations, Authorities and Commissions. On The Power Authority of the State of New York, April 20, 1977, pp. 9-10.

[33] Ibid., p. 10.

[34] Ibid., p. 11.

[35] Letter found in Veto jacket, Laws of 1977, Assembly Bill A-6523, Senate Bill S 4698. Confirmed in interview with Lee Davis.

[36] Department of Environmental Conservation Press Release, May 1, 1978.

[37] Ibid.

[38] "PASNY Attorney Cries Foul", Woodstock Times, January 30, 1978, p. 1.

[39] Ibid.

[40] Joint hearings, pp. 17087-17088, 17120-17121.

[41] Joint hearings, pp. 18817-18818.

[42] New York Times, March 17, 1979, p. 22.

[43] Interview with Edward Eckstein, Media Relations Department, PASNY, August 24, 1989.

[44] Interview with H. Lee Davis.

[45] Ibid.

[46] Minutes of Hearing of May 10, 1974, Case 80001. New York State Public Service Department, New York State Board on Electric Generation Siting and the Environment, May 10, 1974. p. 22.

[47] Minutes of Hearing on Public Service Commission Case 80001, p. 3848.

[48] Ibid., p. 3850.

[49] Ibid., Mr. Ierardi. p. 3940.

[50] Ibid., p. 4084.

[51] Ibid., p. 4085.

[52] Ibid., p. 4096.

[53] Applicant's Response to motion for a stay by the Sierra Club and Ecology Action and to Motion by Commission Staff to Compel Answers to Certain Interrogatories, May 31, 1974, p. 18.

[54] Applicant's Initial Brief, Case 80005, November 1, 1976, p. 4.

[55] Ibid., p. 38. The members of the SNUPPS (Standardized Nuclear Unit Power Plant System) consortium were Kansas City Power and Light, Kansas Gas and Electric, Union Electric (St. Louis), Northern States Power (Minneapolis) and R G & E. Five other duplicate plants were to be built of the same standarized design.

[56] Minutes of Hearing of May 8, 1974, Case No. 80001. New York State Public Service Department, New York State Board on Electric Generation Siting and the Environment, p. 12.

[57] Ibid.

[58] Ibid., p. 62.

[59] Ibid., p. 75.

[60] 1974 Public Service Commission Section 149-b filing, Vol. D, p. 173.

[61] Brief on the Record of Case 27319, Department of Environmental Conservation, May 22, 1979, p. 7.

[62] 1976 Public Service Commission Section 149-b filing, Vol. D, p. 273.

[63] Report of Member Electric Systems of the New York Power Pool, April 1979, Vol. I, p. 336.

[64] Brief on the Record of Case 27319, Department of Environmental Conservation, p. 9.

[65] Ibid., p. 5. Note that this forecast required a recomputation by the DEC of PASNY's forecast. DEC Attorney Carl Dworkin justified their forecast on the basis that PASNY did not appear in the 1978 149-b proceedings, and consequently could not have its methodological assumptions tested or cross-examined.

[66] Ibid., p. 6.

[67] Ibid., p. 6.

[68] Ibid., pp. 38-39.

[69] Minutes of Hearing of May 8, 1974, Case 80001, p. 50.

[70] Ibid., p. 72.

[71] Ibid., pp. 52-54.

[72] Minutes of Hearings..., p. 2474.

[73] Ibid., p. 2572.

[74] Ibid., p. 2574.

[75] Ibid., pp. 2648-9.

[76] Ibid., p. 751.

[77] Ibid., p. 685.

[78] New York State Public Service Department, New York State Board on Electric Generation Siting and the Environment, Opinion and Order Granting Certificate of Environmental Compatibility and Public Need, January 11, 1978, p. 9.

[79] Ibid., p. 15.

[80] Ibid., p. 16.

[81] New York Public Service Commission, Order Granting in Part and Denying in Part Petitions for Rehearing, May 4, 1978, p. 3.

[82] Ibid., p. 4.

[83] Ibid., p. 8.

[84] Interstate Commerce Commission v. Jersey City, 322 U.S. 503, 514-515 (1944), quoted on p. 10, Ibid.

[85] Ibid., p. 10.

[86] New York State Public Service Commission, Case 80005, Opinion and Order Vacating Certificate, Feb. 11, 1980, pp. 14-15.

[87] Ibid., pp. 16-17.

[88] Ibid., p. 17.

[89] Minutes of Hearings..., p. 54.

[90] Ibid., p. 72.

[91] Ibid., p. 63.

[92] Ibid., pp. 55, 62, 75.

[93] Ibid., p. 41.

[94] Tom Ellis, "Position Paper on Nine Mile Two", Albany Peace and Energy Council, October 1984.

[95] Ibid.

[96] US Atomic Energy Commission, Atomic Safety and Licensing Board, Docket #50-410, June 14, 1974, Initial Decision, p. 4.

[97] Ibid., p. 41.

[98] Ibid., p. 44.

[99] Ibid., p. 45.

[100] Ibid., p. 47.

[101] Ibid., p. 48.

[102] Ibid., p. 54.

[103] Ibid., p. 63.

[104] Ibid., p. 66.

[105] Ibid., p. 86.

[106] Ibid, p. 85.

[107] Ibid., p. 101. Italics are mine.

[108] Ibid., p. 103.

[109] Ibid., p. 103.

[110] Ibid., p. 106.

[111] Ibid., p. 110.

[112] Interview with Robert Burtch, January 20, 1984.

[113] Chapman et al., Electricity Demand and Utility Capacity Planning, Nov. 1973, p. 7.

[114] Ibid., Preface, p. 3.

[115] Brief presented to Public Service Commission by the following intervenors in opposition to the 1976 rate-increase application by Central Hudson Gas and Electric Corporation: Maurice D. Hinchey, Hyman Ruchlis, Louis Fagon. Authors' italics.

[116] See Public Service Commission Cases 27032, 27461, and 27826.

[117] Chapman et al., p. 18.

[118] Ibid., pp. 19, 21.

[119] Niagara Mohawk, 1977 Annual Report, February 1, 1978, p. 2.

[120] State of New York Department of Public Service Power Division and Office of Accounts and Finance, The Economic and Financial Implications of Nine Mile Point Two and its Alternatives, September 1981, pp. II-5.

[121] Ibid., pp. II-1.

[122] Karen Burstein and David Schlissel, Why We Don't Need Nine Mile 2, Consumer Protection Board, 1981, p. C2.

[123] Ibid.

[124] Dale Tasler, "Nine Mile 2: now what?", Syracuse Herald-American, April 1, 1984, p. 12.

[125] New York State Energy Office Memorandum, May 23, 1984, pp. 5-11.

[126] Ibid., pp. 5-12.

V. CORPORATIST PLANNING IN THE ELECTRIC SYSTEM

Throughout the decade of the 1970's, there emerged a trend in the direction of what will be referred to here as corporatist planning. The central feature of corporatist planning in the electric system is cooperative effort by utilities to maintain the strategic ground in the planning process, with the sanction of the state. During the course of the PSC 149-b planning proceedings, several components of corporatism emerged: 1) joint financing of construction projects in an effort to combat escalating costs, culminating in the ill-fated ESPRI proposal for a single State-wide financing organization; 2) research-and-development consortia, already previously begun (see Chapter Two on nuclear power) but greatly encouraged in the Public Service Commission planning proceedings; 3) construction consortia designed to share cost burdens, but which also maintained the status quo utility preference for centralized power stations--as well as supporting interlocking interests between utilities and construction unions; and 4) load forecasting conducted and defended by the entire Power Pool, which enabled an extension of the corporate planning horizon. Together these components worked to offset not only the rising costs of new construction and operations, but also served to combat the pressure exerted by the environmental, anti-nuclear, and consumer movements.

The costs of utility control of electric-system planning

also will be discussed below. These include cost overruns and subsequent rate hikes; environmental degradation (especially through the lack of a radioactive waste storage program); and the loss of industry and jobs from high electric rates. Finally, the development of the planning system resulted in the creation of a new relationship between IOU's and the State, in which the State aided in the depoliticization of energy policy.

Because the Public Service Commission played such a central role in establishing electric-system planning, the question arises as to whose interests were being served with these developments. Gabriel Kolko's treatment of the Progressive era focuses upon the business community's desire to install rationality in the economy through government regulation, which would assist in the elimination of destructive competition. In this respect, business and government cooperation served to produce a unified elite capable of more effectively responding to calls for controls over the business community from disaffected segments of the public.

By the 1970's, the regulatory environment of the electric-utility industry in New York State demonstrated a parallel with the Progressive Era regarding the unification of industrial elites. A second parallel is that the backdrop for both movements was a volatile business and political environment resulting from an unstable economy and from an

aroused citizenry. Perhaps even more clearly related to the Progressive era experience is the fact that the electric utilities were faced with a popular movement aimed at establishing public controls over the industry operations. While the parallel fails in explaining the objectives of the popular movements of the times, the significant similarity between these two periods comes with regard to the industry response to popular challenges. The utility industry came together to fashion a new relationship with government in order to maintain its policy autonomy.

Policy autonomy for the investor-owned utilities means that supply-side considerations are at the center of the policy process, where the utilities' control over access to information gives them a decided advantage in shaping and implementing policy. John Kenneth Galbraith's analysis of the development of what he calls the "planning system" is particularly instructive here. The government sanction of the planning system provides firms within the planning system the ability to dominate firms within the market system--and, further, to lengthen its planning horizon. What the existence of a planning system means for an industry is that in the pursuit of corporate growth, firms establish price before supply. Using General Motors and U.S. Steel as examples, Galbraith noted that their productive capacity is so great that they are capable of seriously affecting prices by altering their output. Consequently:

> Their safest recourse is to exercise the initial control not over production with its uncertain effect on price but to fix the price. Production is then accommodated to what can be sold at that price.[1]

In the regulated electric-utility industry, the growth objective is closely related both to the size of the rate base and to the rate of return granted by the utility commission. First, taking up the rate of return, Galbraith points out the phenomenon of regulatory capture by the utilites. Authors such as Gabriel Kolko and Louis Kohlmeier argue in this regard that capture is endemic in the regulatory process.[2] The creation of the Power Authority itself in 1931 may be seen as a response to the capture of the New York Public Service Commission. Also, during the 1970's the Public Service Commission in New York State was fairly compliant in granting utilities rate relief. But for the purposes of applying Galbraith's argument more completely to the development of corporate planning, it is more useful to consider utility policy changes regarding rate base expansion.

Prior to the implementation of the PSC 149-b planning process and the Article VII and VIII siting proceedings, there was no public State forum for systematic review and analysis of utility claims of need for additional generating and transmission capacity. And since the main stategy of utility opponents in the 1970's was to challenge the utilities' forecasts in those forums, the utilities' developed the corporate planning features noted above in order to maintain

their ability to expand the size of their rate bases, and, consequently, to achieve the objective of growth.

From the perspective of Galbraith's equation, firms without the ability to tailor production to price are vulnerable to competition. To the extent that they were successful in these efforts, the utilities achieved more than regulatory capture by establishing in effect a corporatist planning process with government sanction. Also--as we have seen--the cooperation between the Power Authority and the private utilities in attempting to circumscribe public scrutiny of their forecasts and plans suggests that PASNY is as much a part of the planning system as the investor-owned utilities. In this chapter I will examine in turn each of the features of corporate planning developed during the 1970's, returning to the point of how these developments affect utility determination of rate base and of utility planning in general. Advances in democratic planning will be considered in the concluding chapter.

THE FINANCIAL CRISIS AND THE UTILITIES

The changes in planning processes and siting procedures were encouraged by the high capital costs connected with nuclear power. In June 1975, the Edison Electric Institute projected a demand for electricity that would require by 1990 an estimated investment of $750 billion in nuclear plants.[3] M. J. Whitman of the Atomic Energy Commission reported to the Fourth Geneva Conference on the Peaceful Uses of Atomic Energy

that "the evolution in the costs of nuclear power...would under normal circumstances, be classified as a traumatic, rather than a successful experience." Further, Whitman concluded that during the first decade after commercial sale of nuclear power, the real costs of delivering a nuclear plant would be 200 percent higher. However, Whitman considered this period one of intense learning, which would by the late 1970's result in the lowering of plants' costs.[4] In 1976, the seven major investor-owned utilities in New York State projected a need for 20 new generating plants [14 nuclear and six coal and pumped-storage plants.]

At the same time, these utilities were requesting permission from the Public Service Commission to establish the ESPRI (Empire State Power Resources Inc.) consortium.[5] Several objections were raised to this proposal, notably that there were automatic cost pass-along provisions to customers; that the cost savings would be less than the $6 billion projected by the utilities; as well as that the plan would result in a bypass of PSC regulation in favor of the Federal Energy Regulatory Commission. But like the cases of individual power-plant proceedings, perhaps the overriding criticism was that the utilities' projected need was overstated.[6] This proposal will be discussed in greater detail below.

The crisis of the electric-utility industry in the 1970's was manifest consequently by a financial crisis of such

severity that Mason Willrich argued utilities needed to reorient completely the objectives of their planning:

> What should now count most to an electric utility is financial survival, and that depends on a sufficient rate of return. Given this recasting of the strategies issue--survival in the new energy situation, rather than growth in the old situation--the tactics used by most utilities seem to lead them in the wrong direction. Continued advocacy of a growth-inducing rate structure--declining block rates--seems to be arguing againt one's own economic interest. Moreover, continued advocacy of any particular rate structure is less important than obtaining enough revenues to ensure survival.[7]

Willrich's statement suggests that the utility industry desired to continue with a planning process that put growth as the primary objective. In this sense, Willrich appears bewildered at the intransigence of the utilities in not recognizing the changed environment. However, this occurs because he fails to understand that the utility pro-growth policy is not simply a voluntary choice, but a response to the demands of shareholders and to the desire of utility managers to increase profit and thereby to expand their own salaries and perquisites. Additional pressures upon the investor-owned utilities in New York State come from the Power Authority's ability to construct generation plants and transmission lines in any service territory in the State. Further--as the environmental movement became increasingly critical of nuclear power and of other forms of central-station generation--the utilities were compelled to step up their efforts to depoliticize energy policy.

Willrich also fails to mention the activities of the electric utilities and of the petroleum industry aimed at reducing and/or coopting solar energy research-and-development. Ray Reece documents in The Sun Betrayed the efforts to restrict funding of independent solar energy projects, and to gear the remainder to more capital-intensive technologies necessitating corporate development.[8] In this way, it appears that much of the utility industry was attempting to "weather the storm" by controlling alternatives rather than moving in the direction of innovations in rate structures, load management, conservation, and an increased public role in energy policy. Further elaboration upon both the impact of the financial crunch upon utilities and their response is in order.

THE FINANCIAL CRISIS AND PSC RESPONSE

The financial crisis experienced by the utilities in New York State resulted in the PSC's proposal of solutions, including "an insurance or guarantee system, a direct subsidy system, or public ownership of the facilities"[9] for which the capital is required. The Public Service Commission examined the efficacy of these three solutions in 1975, while it was under the leadership of Alfred Kahn. Of the three solutions, the PSC staff appeared to conclude that the insurance system was the most beneficial, largely because it had the least disadvantages.[10]

The problem with direct subsidies, according to the PSC

report, was that they could result in the misallocation of economic resources by stimulating economic demand beyond that justified by prices without subsidies. There also would be an estimated tax loss because of the tax exemption on utility bonds of $3.3 million annually, which when compared to the State's income tax collections of $3 billion was termed as a "loss...of little consequence."[11] The major criticism of public ownership was that lower electric rates were ascribed to their tax-free status, rather than to any efficiency inherent in public management. In addition, the PSC estimated the drop of consumer bills from public ownership of generating facilities to be only 6%, while the increase in issuance of tax-exempt securities would result in greater interest expenses for the State and a concomitant rise in taxes.[12]

While these proposals were not implemented, the existence of the Report itself dramatized how seriously the Public Service Commission viewed the utilities' capital shortfall and, implicitly, the utilities' projections for significant increases in generating capacity. The 1974 Power Pool submission to the PSC had indicated "a possible need for approximately $16 billion in current dollars of new investment in plants and transmission and distribution facilities through 1983."[13] Con Edison's dividend omission in the first quarter of 1974 highlighted the difficulties investor-owned utilities were experiencing in obtaining sufficient capital. Nationally, the Edison Electric Institute had estimated the

capital requirement for construction purposes for 1974-1980 to be $140 billion in 1974 dollars, of which two-thirds was to come from external financing.[14] From 1971 to 1985, the electric-utility industry share of total business-capital outlay was projected to be 16%, rising from 9% for 1961-1971.[15]

Given the PSC's concern with enhancing system reliability and its lack of experience with looking critically at utility demand-forecasting--as well as the volatile energy demand situation in the country--it is not surprising that the Commission was vulnerable to utility pleas for financial support. However, before discussing the rejection of the ESPRI proposal, it is necessary to consider how the utilities and the Public Service Commission viewed the causes of the financial crisis.

The financial crisis owed itself to several factors, both internally and externally generated. First of all, New York State utilities and regulatory agencies had maintained low depreciation schedules of around 2% a year with required flow-through rate reductions to ratepayers, thus eliminating investment funds.[16] The Public Service Commission staff report accredited regulatory lag as a contributing factor to the electric utilities' inability to raise external funds, stating that rate "increases are not keeping pace with rising expenses."[17] Inflated interest rates severely hampered the ability of utilities to generate construction funds via equity

financing, as the risks and return on utility stocks increasingly looked less favorable compared to those available elsewhere.

A quote from the PSC report illustrates how seriously the equity-financing situation for electric utilities looked in 1975.

> In the United States total net equity financing dropped from $13.5 billions in 1971 to an estimated $3.2 billion in 1974. On the other hand, if the electric utilities are to continue raising 15% of their external funds via the sale of common stock, @I[they alone] will be issuing over $2 billion of common stock per year through 1978.[18]

While inflation and high interest rates placed strains on equity financing, the decline in rate of sales growth by 1974 eroded earnings to such a degree that investor expectations of return on equity were lowered, resulting in declining market-to-book ratios for electric-utility stock--and consequently in a greater dependence on debt for the utilities to meet their capital needs. Furthermore, the greater the issuance of debt, the more that debt coverage was reduced, leading to lower bond ratings; increased risks and the utilities' need to offer higher interest rates on their bonds resulted in further erosion of earnings. Since this cycle's starting point was the eroded earnings--due to the decline in rate of growth of sales--the crucial factor in developing a response to the crisis entailed fashioning a revival of sales, and thus of earnings, to the levels of the late 1960's. This is why several other measures were suggested, in addition to

the ones discussed above, to promote financial stability for the utilities, including:

> [1] a higher allowed return on equity, [2] using future test years in rate proceedings, [3] increasing book depreciation to accelerate capital recovery, [4] normalizing all timing difference tax benefits, [5] including construction work in progress in the rate base, and [6] revising rate structure to encourage conservation in energy and demand.[19]

The first four measures here relate to the rate-of-return side of the utility-earnings equation, which did not promise to offer the utilities' sufficient relief because at the time they were realizing a substantially lower rate of return on investment than that allowed by the Public Service Commission. Witness this statement from Public Service Commission Chairman Alfred E. Kahn:

> In 1974, during the course of which the Public Service Commission determined that the return on investment, based on the cost of equity capital, should be increased from 12.0% to the 13.5 to 13.75% range, the actual return on equity realized by the seven major electric companies ranged only between 8.3 and 11.1%, and averaged 9.5%.[20]

Thus, strategies aimed at stabilizing the electric utilities' financial situation by promoting expansion of the rate base (such as construction work in progress) were very important to them . As we have seen, strategies aimed at restricting utilities' expansion of their rate bases (such as improving demand forecasting and demand management) were disparaged. Hence--of all of the solutions to the financial crisis proposed by the Public Service Commission, the two most aggressively pushed by the electric utilities were

construction-work-in-progress and the investor-owned-utilities version of the insurance proposal: the Empire State Power Resources, Inc. consortium.

EMPIRE STATE POWER RESOURCES, INC.

The seven major investor-owned utilities in New York State proposed in 1976 the establishment of a corporation to be known as Empire State Power Resources, Inc., to finance, construct, and operate on a consolidated basis new baseload-generating plants. In 1976, in testimony to support of their petition, the investor-owned utilities projected a capital cost for new generating facilities from 1977-1998 in excess of $40 billion, and argued that with ESPRI assuming responsibility there would be a substantive reduction of the external financing requirements. Financial studies of the sponsoring companies put the savings at "approximately $28.9 billion less than the external financing which will be required in the absence of ESPRI."[21] In addition, William A. Lyons, Chairman of New York State Electric and Gas Corporation, testified that there would be additional estimated savings of "about $5 billion resulting from the development of an in-house engineering and operating organization and savings of about $6 billion resulting from a program of sequential construction, which ESPRI will facilitate."[22]

Niagara Mohawk Vice President John M. Endries endorsed his company's participation in ESPRI during PSC hearings by

noting that in addition to reducing the external financing burden and the retail rates, ESPRI offered additional consumer benefits "such as the customers protection from the entire fixed charge burden caused by outages or construction delays, (and) system operation and maintenance cost savings."[23]

Several objections were raised to the ESPRI proposal by various groups, including the Public Service Commission staff, the Consumer Protection Board, the People's Power Coalition and the Multiple Intervenors, a group of large industrial customers. The PSC's decision to reject the proposal was based upon two major considerations: (1) the financial savings were overestimated by the investor-owned utilites, largely due to their "unrealistically high" estimate of the portion of ESPRI financing that could be handled by bond sales; and (2) the Commission's belief that any benefits from ESPRI "were outweighed by the loss of regulatory control over a large portion of the costs involved in setting consumer rates."[24] The loss of regulatory control would occur because, as a wholesaler of power, ESPRI would be subject to federal rate regulation rather than to regulation by the State Public Service Commission. The Commission concluded that "we should not relinquish our jurisdiction to (the Federal level) to achieve the kind and amount of benefits likely to flow from the ESPRI proposal."[25] In addition--as was the case with the Article VIII generating plant proceedings--perhaps the overriding criticism was that the utilities' projections of

need for such large additions to generating capacity were overstated.[26]

When the investor-owned utilities petitioned the PSC in 1976 for permission to form ESPRI, they projected a need for 20 new generating plants (14 nuclear power plants and 6 fossil-fuel and pumped-storage plants), for a total addition to generating capacity of 20,800 mw by 1991.[27] By the time of the 1979 Report to the State Energy Office, the Power Pool's expansion plan called for 12,672 mw of new capacity. Perhaps a better illustration of the dramatic decline in demand was the change between 1976 to 1979 in forecast of peak load. The Power Pool submission in 1976 already had illustrated how quickly the long-term demand picture could change. Witness this statement from that report:

> We now forecast a 1990 peak load of 35,700 MW, some 14,000 MW lower than was forecast in the 1973 report. The significance of this change becomes more evident if one notes that the 1975 peak load was 20,001 MW and therefore that the 15-year load growth has been cut in half relative to the 1973 forecast. In the 1973 report, a 35,700 MW load was forecast to occur in 1983, some 7 years earlier than now forecast.[28]

The forecasted peak load for 1990 reported in 1979 was 28,040 mw, a decline in excess of 20% in three years.[29] In the absence of need for such tremendous generating-capacity expansion and a corresponding decrease in finance-capital requirements, the Public Service Commission determined that the ESPRI proposal was unjustified.

CONSTRUCTION WORK IN PROGRESS

A second major proposal for relief of the utility financial crisis was to include construction work-in-progress in the rate bases of the investor-owned utilities. CWIP was a controversial proposal both because it appeared to aid disproportionately those utilities with large construction costs, and it could serve as a fait accompli for obtaining the operating licenses for generating plants because the construction costs already would be absorbed into rates. Robert C. Henderson, Vice President of Rochester Gas and Electric Company advocated CWIP inclusion in the rate base as well as other changes in the regulatory process such as temporary rate increases to enable companies to earn their authorized rates of return.

On the contrary, witnesses from the Consumer Protection Board and the Public Service Commission staff testified that CWIP only was useful in helping to increase the market value of a utility's stock if it had a high level of construction work-in-progress and a low market-to-book ratio on its stocks. In fact, one PSC staff member questioned whether the studies performed regarding the impact of CWIP inclusion in rate base upon market value "may have been a study very much of companies with large and small construction budgets, which, too, should have some effect on the cost rates of debt capital; and so, therefore, it may not have been so much a study on CWIP as companies with larger versus small

construction budgets....[30]

Finally, regarding the question of CWIP inclusion as a means of easing the utilities' financial crisis, Joseph F. Thorne of the Consumer Protection Board concluded:

> Clearly... the increased revenue burden placed on current ratepayers by... construction work in progress in rate base is not offset by possible reductions in the cost of capital unless those reductions are significant [2% or greater]. Considering this, movement toward... expanding the placement of uncompleted plant in rate base should not be approved.[31]

One conclusion that may be drawn from the Public Service Commission's stance both on the ESPRI proposal and CWIP is that, by the late 1970's, the PSC was more openly critical of utility attempts to perpetuate a pro-growth policy through obtaining financial assistance from the State. This view was clearly expressed by citizens groups who criticized the transfer of planning jurisdiction away from the PSC in 1978 because--in their view--the 149-b proceedings were becoming very useful as a mechanism of public input in planning. Consequently, as utility forecasting, finance, construction plans, and operations were viewed more critically by the PSC, utilities looked for means to circumvent the revitalized regulatory commission through ESPRI and the State Energy Master Plan process. As Mason Willrich observed in 1975, the investor-owned utilities needed to be aware of the fact that they were operating in a much more political environment.

What was the impact of changes upon corporate planning in

the financial environment? The ESPRI plan amounted to an attempt both to pool existing financial resources in order to maintain financial health for the utilities, and at the same time to maintain autonomy from public scrutiny by overriding PSC regulation. Overall, the objective of corporatist planning was to maintain the pro-growth policy, which resulted in utility efforts to free up greater amounts of investment capital for system expansion. Thus, despite the dire warnings of Willrich and others, the major thrust of utility activity was to perpetuate business-as-usual and to ignore public demands for conservation, load management, alternative technologies, and consideration of end uses.

PASNY AND CORPORATISM

Beginning in the 1920's the hope for a publicly-generated electric policy in New York State was centered upon the Power Authority. As a method of understanding how far corporatist planning advanced since 1970, we will look at some of PASNY's activities relative to the investor-owned utilities during that time. In connection with our earlier discussion of the legislative framework for public planning, and also with the proposal for the Cementon nuclear plant, PASNY consistently resisted any attempts at public examination of its plans--particularly in the area of the question of need for its projects. Further, PASNY did nothing to encourage community groups to be active in energy policy, for fear of having its generating and transmission projects placed under

public scrutiny. This clearly was the case with regard to PASNY's proposal to build a 765-kilovolt transmission line from Massena to Marcy, New York, where due to public concern over the potential health hazards of these extra high voltage lines, PASNY eventually had its exemption removed.

The extent of PASNY collaboration with investor-owned utilities during this period is considerable, given its earlier history. It was a participant in the New York Power Pool's 149-b and SEMP planning reports, but consistently gave less supporting information about its plans and planning than did the IOU's. Critics of the 765 kilovolt line from Massena to Marcy suspected that the construction of this transmission line was a prelude to private-utility development of nuclear plants on the St. Lawrence River. Massena's battle to achieve municipal takeover of its electric system was met by opposition both from PASNY and from Niagara Mohawk. Further, Niagara Mohawk's construction and operation of the Fitzpatrick nuclear plant for PASNY demonstrates more collaboration than it does yardstick competition. And--as two state auditors' reports have concluded--PASNY appears to derive a disproportionate amount of its revenue from nuclear plants, indicating that its commitment to that technology owes itself more to institutional maintenance than to PASNY's acting as a yardstick regulator.[32]

EXTRA HIGH VOLTAGE TRANSMISSION LINES

The growing interconnection of planning between PASNY and the IOU's is evident further concerning the 765 kv line controversy. First, PASNY took most of the burden from the IOU's in building the line. Second, the IOU's proposals to build nuclear plants at Waddington and at Fort Drum to tie in with the line indicate that there was coordination of construction planning. Finally, PASNY's sketchy submissions to the Power Pool Reports for the PSC 149-b hearings and later for SEMP suggest that its exemption from regulation was used to justify the withholding of information about its plans.

This was not only contrary to the spirit of public planning, but to its own enabling legislation, to the extent that PASNY's mandate as a champion of countervailing power was based upon protecting the public health. Instead of aiding in the investigation of the health effects of extra-high-voltage transmission, the Power Authority sponsored trips by community leaders to a 765-kilovolt transmission line in Ohio, for the purpose of undermining public fear of the line. Further, the Power Authority requested permission to begin construction of the line while the health hearings were still in progress. This shows once again that the Power Authority used the fait accompli as a means of undercutting community opposition. Indeed, in his dissenting opinion on this case, Public Service Commissioner Harold Jerry expressed the view that PASNY somehow had terrorized the PSC into granting the approval for

this transmission line, using its limited authorization to purchase equipment which could only be used for a 765 kv line.[33]

The entire Massena-Marcy project is an example of corporatism in that PASNY did not attempt to study whether there were flaws in the assumptions behind this project--but instead strove to build it without regard to the question of the end uses for the energy. This disregard for the community's wishes was expanded at the State level as PASNY fought continuously against the removal of its exemption from having to show need. In fact, the Authority's disregard for community opposition extended to actions to acquire the lands for the right-of-way by deceiving landowners into signing over those rights.

One of the aspirations of the major investor-owned utilities at least since the Burton Report in 1959 was a statewide extra high voltage transmission grid. After the passage of Article VII in 1970, the conditions materialized for public review of utility proposals for major transmission lines; which led to a number of challenges to those plans. As a result of these citizen interventions, some additional features of utility planning have been uncovered and again the opportunity arose for the questioning of need for electrical-system expansion. While opponents of these projects did not succeed in preventing the construction of these transmission lines, their involvement in the Article VII hearings did

broaden the policy process to greater consideration of public health and safety issues. In addition, opponents recognized the relationship between planning for transmission-grid expansion and the pro-nuclear power activities of the utilities, which caused them to play a larger role in Article VIII and planning proceedings as well. As with the Article VIII proceedings, the success of the citizen opponents of transmission projects was based upon their ability to discredit the utility's claims of need for the projects.

Niagara Mohawk Power Company had filed an application on May 18, 1972 for a certificate of environmental compatibility and need for a 765 kilovolt transmission line to run between its Volney and Edic substations, a distance of 72 miles. This 765 kv line, and another proposed by Niagara Mohawk and Rochester Gas & Electric Company in 1974 to run from the Volney substation to R G & E's Pannell substation (an additional distance of 66 miles), were proposed to transfer electricity from Niagara Mohawk's Oswego Steam Station No. 6, from its Nine Mile II nuclear power plant, and from the proposed Sterling nuclear plant. In addition, Niagara Mohawk argued with regard to the Volney-Edic line that it would promote system stability and "ultimately could become part of a proposed west-east transmission line now under construction."[34]

Finally, the Power Authority of the State of New York submitted a proposal to the Public Service Commission in

September 1973 to construct a 765 kilovolt transmission line from Massena to Marcy, New York, in order to transmit electricity generated in Quebec. The significance of the fact that these proposals all were for 765 kilovolt (extra high voltage) transmission is that citizen concerns about the health impacts of these lines led to a Public Service Commission generic proceeding on 765 kilovolt transmission. As with the generating-plant controversies discussed in the previous chapter, the utilities' activities to gain authorization for these projects reveal the de-politicizing nature of utility planning.

Upon the requests of the Department of Environmental Conservation, the Department of Health, the Attorney General of the State of New York, and the Department of Agriculture and Markets, the PSC instituted a rule-making proceeding to determine whether existing and proposed 765 kv transmission lines could "be operated at their designed voltage capacity consistent with the health, safety and welfare of the people of New York State and, if so, under what conditions such lines should be operated."[35] Because Niagara Mohawk had received certification for its Volney-Edic line before the beginning of the PSC rule-making proceedings, the major question it faced was whether this line could be operated at 765 kilovolt capacity--while for both the Volney-Pannell and Massena-Marcy lines in late 1974, it was an open question as to whether they even would be constructed.

Niagara Mohawk's proposed Volney-Edic line was not received with a significant degree of citizen opposition prior to its certification, especially when this proposal is contrasted with PASNY's Massena-Marcy transmission project. The two major reasons this occurred are that citizen intervenors found it difficult to mobilize community opposition because there was to be no new land acquisition for a right-of-way--and also that the generating plants which would be serviced by this transmission line already had received certification for construction, thus precluding opposition based on need. As noted above, Niagara Mohawk's need case for this transmission line was based upon system stability and upon its eventual inclusion in an east-west transmission line. Thus, citizen intervenors would have had to examine the State's entire electric system to criticize the need case of the utility. Considering the fact that brownouts were still not uncommon in May 1972 when the application was filed--especially in the Con Edison service territory--it was unlikely the Public Service Commission would be convinced that greater transmission stability was unnecessary.

Turning to the first cause for an insignificant citizen opposition, we find that Niagara Mohawk had a large advantage due to the availability of a right-of-way which already had been acquired by the Power Authority, thus precluding conflicts between Niagara Mohawk and balking landowners. The availability of this right-of-way was useful to the utility

not only in discouraging citizen opposition, but also in making the case to the Public Service Commission and the Department of Environmental Conservation. In its Opinion and Order Granting Certificate of Environmental Compatibility... the Public Service Commission made note that PASNY's cooperation with Niagara Mohawk "makes easier our selection of the appropriate route for the Volney-Edic line."[36] The nature of the cooperation raises questions concerning the timing of the planning both for PASNY's and for Niagara Mohawk's system-expansion projects in the early 1970's. In other words, the cooperation between PASNY and Niagara Mohawk plausibly could have begun before Niagara Mohawk even began preparing its application for review by the PSC and intervenor groups.

When the hearing process began for the Volney-Edic line, the Power Authority already was constructing a 345 kv line from its Fitzpatrick nuclear plant to Edic, which was to utilize a 150-foot-wide strip of land on the side of a 400-foot-wide right-of-way. According to PASNY, the extra 250-foot-wide strip had been acquired "...in order to be sure that future use of the plant site would not be limited because of inability to transmit power from the site (Fitzpatrick) to the principal New York cross-state grid at Edic."[37]

The Public Service Commission termed the Power Authority's need for this right-of-way "extremely speculative, depending upon such imponderables as the future need by PASNY

for additional generation, the advisability of locating such generation at the Fitzpatrick site, the receipt of regulatory approval for such location, the advisability of introducing the output of this generation into the power grid at Edic, and so forth."[38] And despite the fact that the Power Authority could not specify the need by 1990 for the right-of-way beyond an anticipation of need for a 1000 mw plant, which might be located on the St. Lawrence River, the PSC recommended that the PASNY right-of-way be certified in February 1974.

However, in the hearings pending certification of the Pannell-Volney and Marcy-Massena lines, several intervenors called for the Public Service Commission to institute a common hearing for both applications with regard to the issues of "the levels of noise and ozone produced as well as the electrostatic, electromagnetic and other induced effects of all of the foregoing upon living organisms, including any possible effects on human beings."[39] Niagara Mohawk, Rochester Gas and Electric and the Power Authority immediately closed ranks in opposition to the conmmon hearing, arguing that it would violate their substantive and procedural rights in the ongoing proceedings; that it would constitute an inappropriate and arbitrary abuse of discretion at this stage of the proceedings; and that, since the proposed transmission lines were different in design and route, there would be minimal benefit from examining those issues for both lines.

The Power Authority was adamantly opposed to a

consolidated health-issues hearing. Furthermore, PASNY invoked its statutory exemption from regulation as an argument against inclusion of its project in the consolidated hearing:

> PASNY notes that whereas corporate applicants have to make a showing of need under Article VII, a finding of need by PASNY is binding on the Commission. PASNY states that in Case 26529, it has made a determination of need with respect to a 765 KV line on the route in issue and that necessary authority for construction of lines of that voltage have been received from the Federal Government.[40]

The Power Authority intended to use its exemption from a determination of need as a device to prevent the PSC from convening a consolidated hearing altogether, regardless of the statutory requirement in Article VII that adverse impacts upon the environment and upon health and safety should be minimized. The PSC Hearing Examiners concluded that despite PASNY's claim, "if it should be established that certain health and safety problems attend the use of 765 KV facilities, the Commission would not be bound by PASNY's determination that such a voltage level is the appropriate level to employ."[41] In the consolidated hearing that followed, not only were the health and safety issues examined in greater depth--but also citizen intervenors began an investigation of PASNY's case for need as well.

PASNY's involvement in contracting for Hydro Quebec power began when it received authorization from the State legislature to serve loads in the service terrritory of Con Edison in Southeastern New York. The Hydro Quebec power

contract was for 800 MW of firm power during Con Edison's seven summer peak months from 1978 to 1992. Opponents were quick to point out that the 800 MW from Hydro Quebec was only approximately one-fifth of the carrying capacity of a 765 KV line, and began to question further why such a high voltage transmission project was proposed. When the Long Range Electric and Gas Report was issued in 1976, a proposed nuclear plant on the St. Lawrence River appeared to be the answer. In the Public Service Commission hearing held in Canton, New York on September 10, 1976, Howard Jack, legal counsel to the Public Service Commission, confirmed this suspicion in the following statement. Because it illuminates the nature of Power Pool planning, it is reproduced here at length:

> First of all, there has been consideration given to the New York Power Pool long-range plans for generation and transmission, and included in these long-range plans is the potential generation on the St. Lawrence River, that in the Power Pool plan is conceptually located near Waddington and there the studies haven't even begun. As far as I know, there has been no determination at any point if anyone were to build the plants, and where possibly the location would be, but there is this projection of generation on the St. Lawrence and it's part of the record of this proceeding, part of the justification of the size of the line proposed here, namely 765KV, that in terms of long-range planning, it would be more compatible with long-range planning than 345 KV lines because of its potential for additional generation on the St. Lawrence as well as additional transmission that would have to be built to serve that generation. This particular line in itself would not be adequate to serve that generation on the St. Lawrence. It would not be or could not create a reliable system. The testimony in this case has indicated that there would have to be a second high voltage line so you would have a loop system to provide adequate reliability.[42]

At that point in the hearings, the line's opponents realized that their changes of success were dependent upon their ability to debunk the Power Authority's case for need for the project. Of course, PASNY's exemption from the requirement to prove need for its projects made such a task unlikely, if not impossible. However--although the Power Authority ultimately received authorization for the line and has constructed it--as a result of the legislative efforts of the Massena-Marcy line opponents, the Power Authority's exemption from Article VII was nullified in 1978.

But while the project's opponents were moving to examine the need for the line and were raising questions about potential health hazards, the Power Authority was using the fait accompli as a lever with which to finish the line. Before the Public Service Commission was finished with the consolidated hearings on health impacts, PASNY had gained its authorization to clear approximately 122 miles of the right-of-way.[43] What the PSC did not know at that time, however, was that the Power Authority already had contracted for support structures and lines for 765 kv transmission, again despite the fact that the PSC had not granted certification for 765 kv operation. While the Power Authority argued that the purchase of this equipment was a cost-saving action, critics of the project pointed to it as an example of the Power Authority's arrogance.

One Public Service Commissioner, Harold A. Jerry, Jr.,

dissented from the majority opinion authorizing erection of the support structures on the grounds that due process had been violated. Jerry argued that the rights of all the parties in this case were not protected because the case was ended too soon, leaving some parties deprived of their right to present evidence and be heard. The Department of Environmental Conservation was in the process of preparing rebuttal testimony when the PSC released its opinion, and the cross-examination of a key witness on health effects, Dr. Andrew Marino, was not yet complete.[44]

In addition, the Commission did not use an examiner's decision as a guide in making their decision--leading the intervenor group, Upstate People for Safe Energy Technology (UPSET), to oppose the PSC motion on the grounds that the testimony and cross-examination were not complete. Finally, Jerry argued that the PSC majority opinion was in violation of the Article VII statute because there was "almost a total lack of evidence in this case concerning the nature and economics of alternative means of minimizing the impact of the line."[45] The wording of this dissent illustrates clearly how the fait accompli undermines regulatory authority:

> Our staff notes that operating noise can be reduced by increasing the size of the cables used or by increasing the number of cables in each bundle. But the staff states that "unusual circumstances" preclude such design changes. The "unusual circumstances" are that the Power Authority has already ordered and obtained the materials for the transmission line. We are advised by staff that it believes we cannot change the proposed size or number of the cables because then the Power

> Authority could not use the steel it has already obtained. But staff adds that this fact is not on the record: moreover, any design changes might delay construction of the line. Reasoning like this makes me wonder what purpose is served by Public Service Commission involvement in the design and construction of this line. All of the crucial decisions in this case have, in effect, been made by the Power Authority, without regard to the Public Service Commission, the environment, or the applicable statute.[46]

Thus, the use of the fait accompli on this project by the Power Authority resulted in increased citizen opposition to its project, and in this statement by dissenting commissioner Jerry:

> I am concerned lest this case should become a precedent for similar unilateral action by the Power Authority... If a private utility were involved here, the adoption of such procedures is beyond my powers of imagination. **But the Commission has somehow been terrorized by the Power Authority.**[47]

Furthermore, the deliberate action of contracting for equipment for the 765-kv line prior to PSC authorization to operate at that level indicates that the Power Authority had placed its own plans as a higher priority than its mandate to serve the public interest by taking into account environmental and health impacts. The majority opinion of the Public Service Commission also was moved by PASNY's argument that further delays in initiating construction would jeopardize the projected $45 million in fuel savings for 1978 from the purchase of 800 mw of Hydro Quebec power,[48] not to mention any additional power which Hydro Quebec may have been able to divert. Besides the $16 million incurred annually due to

interest charges and inflation as the project was delayed, the Public Service Commission suggested there were other hidden costs involved with a delay:

> Though the specific health impact of reduced emissions was not evaluated, the record does show that since the 800 megawatts of diversity power will replace oil-fired generation, emissions of particulate matter, oxides of nitrogen and oxides of sulphur will be reduced.[49]

Commissioner Jerry's dissent to this opinion seemed to be in direct response to these claims of costs and environmental savings. He argued that due to the "almost total lack of evidence" regarding alternative means of minimizing the lines' impacts it simply was "not possible to make the decision required by the statute that the facility approved represents the minimum adverse environmental impact."[50] In his concluding statement on this opinion's violations of due process, Jerry put the fuel savings argument in a different light:

> In their unseemly, if not panicky, haste to terminate this proceeding, our staff, the examiners, and the majority have aborted this case before it was legally complete. The rights of the intervenors, of the citizens of northern New York, and indeed of the environment are to be sacrificed for an ephemeral and non-recurring one-year fuel saving to the average residential Con Ed customer [one who uses 250 KWH per month] of $4.92.[51]

With the authorization to construct the 765 kv lines, the opposition to the project increased--moving out of the Article VII hearing rooms and into the woods of Northern New York. Protests against the line grew in intensity due to the arrests of demonstrators, and because the opponents recognized that

PASNY's treatment of their opposition to the transmission line was only part of a larger pattern of behavior and a prelude to more threats to their community. The following is quoted from a 1978 article in The Nation by Joel Ray, a participant in the opposition to the Massena-Marcy transmission line:

> ...the line was perceived to be unnecessary because its capacity was five times what was needed to bring 800 megawatts from Quebec. It was possibly ill-advised because the contract called for shipment of power during only seven months of the year and ran for only five years, after which PASNY would have to negotiate each year--and what it got would depend on the Canadian National Energy Board's finding of a surplus. It was a stupid project, many felt, because it was based on a contract with a politically unstable government.[52]

And as noted above, there was evidence that the existence of this extra-high-voltage line was an invitation to construct nuclear generating plants on the St. Lawrence River. Further examination of the need for the line was foreclosed by PASNY's exemption from this provision of Article VII. However, questions remained about how this project fit in with the larger picture of electrical-system planning in New York State.

Opponents of the line claimed that the PASNY transmission line was the same one for which Con Edison had been unable to prove need.[53] By PASNY's own admission, the electricity from Hydro Quebec was not planned to add energy to the grid, but to serve as replacement power for fossil fuel generation serving the New York City metropolitan area.[54] Further, the attorney for UPSET (Upstate People for Safe Energy

Transmission) "argued that a need for the line was never established in the first place" because of PASNY's exemption.[55]

In addition, evidence continued to surface that the line was needed to service proposed nuclear generating plants in Northern New York-- such as in the feasibility study for a nuclear energy center at Fort Drum, sponsored by the Nuclear Regulatory Commission,[56] or in the Department of the Interior study of the capability of nuclear power plants to aid in ice control on the St. Lawrence River.[57] UPSET referred to a report from the Canadian National Energy Board which concluded that Canadians should not have to pay for the full cost of the 765 kv line, because a 345 kv line was all that was required. The following quotation from the report is from a witness employed by PASNY, who testified that the Massena-Marcy line "would likely be required by about 1991 as part of a high voltage loop which would be used to incorporate additional nuclear generation planned for northern New York State."[58] Over a month previous to the Canadian report, Power Authority Chairman James Fitzpatrick had insisted, "We have no plans, nor do we know of any plans, for nuclear power plants in Northern New York."[59]

Opponents of the line also charged that there were not sufficient guarantees of Canadian hydropower availability to warrant construction of the 765 kv transmission line, stating that the powerline was "designed to carry vast amounts of

Canadian power, the sale of which Hydro-Quebec has repeatedly warned it cannot guarantee."[60] The terms of the contract with Hydro Quebec were for 800 kw of firm power for only seven months of the year, considerably less than the capacity of the line. However, even when the Power Authority arranged for considerable amounts of interruptible power to be imported from Canada, there were concerns about whether the reliability of the electrical system actually had been increased.

The arrangement entailed a tie-in between Hydro Quebec's system and the Power Authority grid, allowing up to 2,200 megawatts of electricity to be brought into New York State by 1984. Problematically, Hydro Quebec lacked the funding for construction of the power lines it would need. As it was reported in July 1979, due to Hydro Quebec's funding problems, PASNY Chairman Frederick Clark "suggested that the Power Authority might consider putting up the front money in exchange for more firm power."[61]

While the controversy over the 765 kv line in Northern New York became protracted, newly appointed Power Authority Chairman John Dyson began working out a deal to continue selling Vermont inexpensive power in exchange for the State's construction of high-voltage lines east of Lake Champlain.[62] In fact, the State had experienced so much powerline dissent from upstate citizens that Governor Carey sought legislation that would have allowed the Power Authority "to help finance construction outside of New York and in Canada if

necessary."[63] Clearly, the protests against the Massena-Marcy 765 kv line had made an impact upon the transmission-line siting policy in New York State. Indeed, by September 30, 1978, Niagara Mohawk and Rochester Gas and Electric Company's application for the Volney-Pannell 765 kv line was in danger of being dismissed because they had not gone forward on the proposal for two years.[64]

Despite the conflict surrounding construction of the Massena-Marcy line, the Power Authority's public relations indicated that it had been a success. While PASNY still was involved in a regulatory dispute with the PSC--to be discussed in a moment--it announced that the line had saved New York from the cost of importing about 1,650,000 barrels of imported oil, a saving of nearly $21.5 million.[65] Approximately a month later, a Waterown Daily Times editorial estimated that the savings "in barrels of foreign oil" had topped 2 million;[66] and in March of 1980 the Power Authority announced--along with a transmission rate increase--that Quebec hydropower had saved New York State's consumers about $50 million through replacement of electricity which would have required the burning of over 600 million gallons of foreign oil.[67] But the public relation offerings of the Power Authority were only part of a larger effort to get the line into operation, which included attempts to establish a fait accompli with the line and a dramatic confrontation with the Public Service Commission.

The conflict began after the PSC granted the Power Authority authorization to erect transmission towers on the right-of-way in June 1976, because the order provided that the PSC could attach conditions on the line's operation depending upon the findings of the ongoing hearings on health and safety effects of high-voltage transmission. At the time, the Power Authority expressed no objection to this provision, although the same provision later became the center of the conflict between it and the Public Service Commission.

In 1978, the Public Service Commission stated that the Power Authority challenge to the PSC's ability to impose operating conditions "undermines the very basis for its construction authority, which we never would have granted had we thought we might be powerless to impose the necessary operating conditions."[68] The conditions the Public Service Commission was imposing at the time included a wider right-of-way; resolution of complaints about excessive noise from the line; PASNY funding assistance for more research on health impacts of high-voltage transmission; and acceptance of the PSC's right to impose further conditions.[69]

What was most interesting about this conflict is that the PSC consciously was taking steps to attempt to prevent a PASNY fait accompli, seemingly in recognition of the Power Authority's use of this tactic. In the Public Service Commission order issued on October 16, the Power Authority was given until October 30 to reply in writing as to whether

it would accept the PSC's jurisdiction over operating conditions, before the PSC would order a halt to construction. The following statement from the PSC indicates just how real it considered the possibility of a PASNY fait accompli to be:

> The Power Authority is at liberty to challenge our decision in court. But we are unwilling to allow it to complete and energize the line while it does so.[70]

The Commission went on to explain the possible consequences of a PASNY challenge in the courts:

> ... if the court were to remand the case to us, we would have to examine the alternatives to unconditioned operation of a 765 KV line. We do not believe PASNY should be able to confront us at that time, with the fait accompli of a completed, energized line.[71]

Meanwhile, it became known that the Power Authority was not only unwilling to comply with the PSC's conditions, but actually had been operating the line since August 29, "importing about 320 megawatts of electricity from Quebec."[72] As a result, a group of power-line opponents petitioned the PSC to force the Power Authority to stop using the line for power transmission. PASNY responded that its use of the line was "for testing purposes only,"[73] and decided to take the dispute to the courts--where it won a series of decisions.

First, Appellate Division Judge Ellis Staley issued a temporary stay against the PSC on October 30, leading to a Power Authority decision to continue its "testing" and construction until the court's determination of the order to

show cause.[74] When the PSC appealed to the State Supreme Court, arguing it only had authorized a test of the line, a newspaper account contained this argument:

> PASNY contends that its use of the line to import Canadian Hydro power is nothing more than the test which the commission had allowed.[75]

The State Supreme Court did not issue a temporary restraining order against further PASNY operation of the line, and extended the stay against the PSC revocation of authority to continue construction of the line. A newspaper account of this court action aptly described the situation facing the PSC after it had issued an order directing the Authority to stop using the line:

> ...without its own police force, the commission could do little else but join the authority in court, stuck with the de facto operation it was determined to stop.[76]

The Power Authority's brief submitted to the Appellate Division of the State Supreme Court singled out as the most objectionable condition the PSC order to extend the right-of-way from 250 feet to 350 feet, labeling the requirement as "arbitrary and capricious." PASNY contended that this represented an attempt "to rob the Authority of its legislated right of eminent domain."[77]

The substance of PASNY's claim was that the PSC lacked scientific proof that the electric and magnetic fields at the edge of a 250-foot right-of-way were at dangerous levels. Furthermore, the Power Authority challenged the credibility of the scientific witness, Dr. Andrew Marino, who had been a key

spokesman for the opponents' argument that the electric and magnetic fields produced by high voltage transmission were hazardous to human health. In this regard, PASNY's brief cited the PSC's Administrative Law Judge, who stated "it has been demonstrated that Dr. Marino was reckless and inaccurate in his public statements."[78] Because the health hazards issue is at the core of the controversy over the 765 kv line, it will be discussed in a moment.

The brief of the Public Service Commission before the Appellate Division of the State Supreme Court addressed both PASNY and UPSET, the citizen's group opposing the line. The PSC denied UPSET's assertions that it had been too lenient in establishing operating conditions on the line and had been "too biased in favor of the lines to conduct a fair study."[79] Turning to the Power Authority, the PSC tried to show that PASNY had given the appearance of quiet acquiescence to the Commission's condition of imposing future operating restrictions, in order to begin construction of the line before the completion of safety hearings. The PSC's brief stated that the Power Authority had undermined the basis for the PSC's authorization to begin construction by its refusal to obey the Commission's operating restrictions:

> We believe PASNY is now barred from challenging the condition of which it took advantage to commence construction before the hearings were completed.[80]

The decision of the Appellate Division of the State Supreme Court could be viewed both as a victory for the Power

Authority and an ironic reminder to the PSC that the warnings of UPSET and other opponents of the line in 1976 should have been heeded. The court rejected the PSC's contention that it had the authority to impose operating conditions upon the line after granting certification:

> In our view, if the commission had doubts concerning the health and safety aspects of the transmission line, then it should not have granted final certification until those doubts were resolved.[81]

Further, the court rejected UPSET's contention that the PSC did not have the authority to certify the line. In what proved to be a clarification of the Power Authority's autonomy, the court majority ruled that the commission's authority ended after it had granted certification to construct the line--adding that if the Authority were to be required to purchase additional homes to resolve noise problems with the lines, those decisions would be made by the courts.[82]

THE DEBATE OVER HEALTH EFFECTS

Several scientists testified in the Massena-Marcy line hearings concerning the possibility of health hazards related to exposure to operating high voltage lines. Dr. Andrew Marino testified in the initial stage of the PSC hearings that 765 KV power lines emit a type of radiation that acts as a "biological stressor".[83] In support of his testimony, Marino cited scientific literature and reported the results of his own experiments, which had shown harmful biological

effects from electromagnetic fields. The utility witnesses in this case included Dr. Herman Schwan, Martin Miller, Edwin Carstensen, and Sol Michaelson, who together made the case to the PSC that radiation from the Extremely Low Frequency (ELF) end of the electromagnetic spectrum could not adversely affect living organisms. It was Marino's conclusion that:

> The electric field of the proposed transmission line will probably cause biological effects in the subjects exposed to it.... The exposed group will consist of the old, the young, the sick, and healthy men, women and children--a completely uncontrolled set of exposed subjects.[84]

Further, Marino stated that "no human agency can predict the **specific** biological consequences that will occur in the exposed subjects along the ROW (right-of-way) of the proposed transmission line."[85]

Of particular interest here regarding corporate planning and energy policy is the response by Schwan et al. to Marino's testimony. Edwin Carstensen criticized Marino because the experiments to whcih he referred only had been performed once. The following is from Marino's rebuttal testimony:

> ...there are only three groups in the United States today with research funds available in the ELF area, namely the Energy Development Research Agency, the Electric Power Research Institute, and the Office of Naval Research, and all three generally do not fund projects in the laboratories of investigators who have previously reported a biological effect due to ELF exposure.[86]

In addition to experiencing the cut-off of funding for his own research project, Marino recounted the difficulties in

acquiring research reports from the National Academy of Sciences and the Electric Power Research Institute:

> EPRI refused to supply a substantial amount of the requested information on the grounds that it was privileged... The [PSC] staff was not able to obtain copies of documents and reports from the National Academy of Science which are important to my analysis of the issues.[87]

Activities to suppress research also were reported by Louise B. Young, author of Power Over People. In a New York Times Op-Editorial, Young explained why people in upstate New York were so disturbed about the health-hazards issue. Since there is a wealth of information here concerning this suppression, the article is quoted at length:

> They suspect that there has been a large-scale effort to suppress and discredit any research that indicates serious health effects associated with high-voltage lines. They know that for several years the Russians' research was never mentioned in the literature or in discussions of biological effects of high-voltage lines in the United States until I called public attention to it in my book "Power Over People" in 1974, although key members of the United States electric industry had attended an international symposium in Paris in 1972 where the results of this research were reported.
>
> They have heard that a research project funded by an arm of the electric industry, the Electric Power Research Institute, had its financial support terminated when initial reports from the study indicated significant biological effects. They believe that these health questions should be answered before a line is built over their property. They do not relish the prospect of serving as guinea pigs.[88]

In the Article VII case for the 765 kv line from Massena to Marcy, the Public Service Commission determined that, despite testimony to the contrary, the biological effects of

the electric magnetic fields produced by the transmission lines were not a significant hazard to human health. Due to the fact that the legislature had granted PASNY an exemption from having the Public Service Commission determine need for transmission projects, the PSC was "bound by PASNY's determination that a particular amount of power was required to be transmitted."[89]

With the PASNY determination of need, the PSC only was able to make a recommendation upon whether there should be a single 765 kv line, or whether four or five 345 kv lines could be substituted. Given this choice, the PSC recommended the single 765 kv line because "the larger number of lines required would itself entail considerable environmental degradation as well as added cost".[90]

In fact, the Department of Environmental Conservation also supported the single 765 kv line concept, as opposed to a larger number of 345 kv lines. But the PSC went on to address other concerns raised by the parties in this case. For instance, some opponents of the line questioned the fairness "of subjecting North Country residents to the line in order to reduce the price and enhance the reliability of the power supply to downstate cities."[91]

The PSC responded that the State's electric needs could not be compartmentalized; that the ratepayers in the Con Edison service territory paid on average twice that of their counterparts in Niagara Mohawk's service territory; that the

cost of power is a factor in businesses leaving New York City; and that this PASNY line would provide $45 million in annual fuel savings.[92]

Ultimately, the administrative law judges in this case recommended that recreational use of the right-of-way not be encouraged, and that the investor-owned utilities not be directed to fund studies of public health effects. But this did not become the position of the Commission as a whole. The recommendations emerging from that group were to have a 350-foot right-of-way for the transmission line; an extensive study funded by the investor-owned utilities; and PASNY exemption from operating 345 kv lines from the standard adopted for 765 kv lines. This came after considerable discussion of the merits of the applicant's case that there were not adverse health effects, despite the arguments made by Dr. Andrew Marino and Dr. Robert Becker that the electromagnetic field surrounding this extra-high voltage line would cause stress and stress-related illnesses to humans.

In this instance, most of the controversy surrounding this proposal centered upon the possibility of adverse health effects connected with the technology rather than with the issue of need and determination of need. This does not mean that intervenor groups like UPSET were not concerned with the need issue for this transmission project. In fact, the line's opponents argued that it was being built to transmit only 1/5 of the available capacity of the line for the purchase of

hydropower from Quebec. Also, the intervenor groups in this case exerted pressure on the State Legislature and the Public Service Commission to remove PASNY's exemption from showing the need for its projects.

And because of the challenges to the 765 kv line and the continuing lack of resolution about health hazards, the PSC proposed that a six-member board be set up to study the possible effects of exposure to high-voltage transmission lines. The distinctive point about the composition of this board was that it did not include Dr. Andrew Marino or Dr. Robert Becker, whose testimony had been so controversial.

The memorandum from the Public Service Commission's Power Division outlined some of the major objectives of the study, including their desire for objectivity:

> We avoided selecting any other witnesses because of the strong advocacy of the positions during the case which could be viewed as constituting a predisposition towards the issues that will be considered by the Board.[93]

The funding for this study came from the utilities of the New York Power Pool, amounting to a potential $20 million. The NYPP's willingness to spend such a sum is explained by the absence of Marino and Becker, and the fact that the only Review Board member from the PSC was Allen Frey, who "was cited for his objectivity by the Power Authority of the State of New York."[94]

The resolution of the controvery between PASNY and the PSC would suggest that the Massena-Marcy line was a successful

project for PASNY. Since there was discussion at a meeting of the New England Conference of Public Utility Commissioners of a proposal to bring even greater amounts of hydropower into the region in 1981, some discussion of the line's impact on corporate planning is in order. Amory Lovins, author of Soft Energy Paths, sent a memorandum to several high-ranking utility commissioners urging them not to increase hydropower imports because of the uncertainty of Hydro Quebec's own energy policy. But Lovins' primary objection to the prospect of larger imports of Canadian hydropower was that "no need for them has been shown." Lovins explained:

> By this I mean that no respectable analysis has been done which enumerates, for any New England/New York service area, and in a disaggregated fashion, [a] required end-use energy services, presently and at the argin; [b] the supply curve for providing each service by successively more costly marginal investments in energy productivity by energy supply; and [c] the corresponding exhaustion of all marginal opportunities cheaper than any new electrical supply, including Canadian imports.[95])

Lovins' critique demonstrates what we have seen with regard to the forecasting policy of the utilities--that the lack of interest in end uses of energy and in controlling demand through conservation is integral to utility planning.

Lovins echoed the criticism made of the original contract by opponents of the 765 kv lines, that a supply agreement would require a treaty between the United States and Canada to have any reliability. Further, this contract was being arranged with the government in Quebec, which did not

recognize the authority of the federal government in Ottawa on many matters.[96]

But beyond this general criticism, Lovins analyzed in detail Hydro Quebec's policy with regard to additions to generating capacity, consequently shedding further light on the matter of utility corporate planning. Just as with utilities in the United States, the Canadian utilities are concerned with constraints on their domestic electrical demand. Lovins argued that they attempted to circumvent those constraints through the three following strategies:

> [a] Federal subsidies to convert oil-heated buildings to electric resistance heating--a process which on HQ's own data, commits HQ to an investment of about C$60,000 **per house** for generating capacity alone; [b] Cross-subsidies to electric heating from other classes of customers--an increasing practice that is likely to become politically unpopular as people wake up to it; and [c] Sales to gullible Americans, preferably if US rate payers can be made to finance the capacity expansion into the bargain.[97]

It appears that Canadian utilities engage in their forecasting and planning with objectives very similar to those described in this study in New York State. Hydro Quebec correspondingly has invested capital in construction for capacity expansion to the degree where Lovins argued they were faced with the same financial difficulties as American utilities. For instance, Lovins presented this information in support of his argument against contracting for additional capacity from Hydro Quebec:

> Hydro Quebec has the highest net income of all North American utilities; yet about 87% of that net

> income goes to pay interest on debt incurred for new construction. Hydro Quebec in 1979 had current liabilities about twice current assets, a normal indication of insolvency [though some lines of credit remained undrawn], and spent nearly four times net earning on construction.[98]

The reason Hydro Quebec was able to maintain so much debt is that its debt instruments are guaranteed by the full faith and credit of the Province. Although this gave Hydro Quebec high ratings and made their debt look attractive to the investment community, the enormity of the debt would lead to political controversy, according to Lovins. The following is an indication of the amount of that debt:

> By 1979, the cumulative guaranteed debt for construction work in progress was about 93% of all Provincially guaranteed debt, and almost 19 times the controversial guaranteed debt incurred by the Olympics. It exceeded the total debt of all Quebec's municipalities and urban communities; school boards; government boards; commissions; and corporations; universities, colleges, and health and welfare institutions.[99]

Like electric utilities in the United States in the 1970's, however, the financial crisis did not lead to significant decreases in planned capacity additions. Again, from Lovins' memo:

> Hydro Quebec's ten-year investment forecast, i.e. for the 1980's, proposed about C $89 billion in investment, increasing the guaranteed debt by about **C$14,000 for every Quebecer.**[100]

Incidentally, Lovins noted that Hydro Quebec was not able to use the same explanation for its rising costs---the high price of imported fossil fuel--as an explanation for its rising costs, since 99% of its sales are hydropower.[101]

Moving from the financial situation of Hydro Quebec to its operations in general, we can discern some parallels with the Power Authority of New York State. Lovins informed the Chairman of the New York Public Service Commission of the difficulty in getting information from Hydro Quebec about the cash-flow projection. Lovins related that when asked about the impact of their construction program upon revenue requirements and rates, Hydro Quebec planners would not produce the cash-flow projection, stating that they could not do so without "jeopardizing their competitive position".[102] Later, he was told privately by one of the Hydro Quebec planners that they were concerned with the impact upon Wall Street's confidence if their cash-flow projection were to become public.

Here we see the same pattern of restricted access to information practiced by a public corporation with supposedly open records. Concern with the confidence of investors appears to be overriding, as Ann Marie Walsh argued in The Public's Business. And in conclusion, the planners at Hydro Quebec--like their counterparts in the Power Authority and the investor-owned utilities in New York State--demonstrated great reluctance to engage in demand management and in consideration of end uses of energy in determining energy demand.

CONCLUSION - PASNY AND CORPORATE PLANNING

From this extensive analysis of the Power Authority's project to import Canadian hydropower, we can see several

features of corporate planning and, at the same time, further evidence of similarities between the activities of a public-benefit corporation and an investor-owned one. The Power Authority used its exemption from the Article VII requirement to prove need to force this project through. In a manner reminiscent of Robert Moses' heyday, the Power Authority used the fait accompli to pressure the Public Service Commission into granting certification for the extra-high-voltage line.

Despite citizen intervenors' efforts to do an independent analysis of the need for the project and to make PASNY accountable to the public-planning processes in existence by compelling them to prove need for their projects, the Power Authority managed to gain authorization for this project. And as we have just seen from Amory Lovins' analysis, the contract with Hydro Quebec seriously is distorting an honest appraisal of electricity demand both in the northeastern United States and in Canada.

One of the tasks of this work has been to investigate the extent to which public corporations pursue the same objectives as private corporations; and, as has been demonstrated here, there is a great deal of evidence to support that case. Furthermore, in the joint financing and construction efforts of the investor-owned utilities, the joint forecasting of the New York Power Pool, and the single lobbying organization for the investor-owned utilities (Energy Association of New York State), we see the outlines of corporatist planning--which has

as its objective the maintenance of a private sector determination of demand.

This is not to suggest that competitive market forces of supply and demand actually are the driving force behind electric-system planning. The market established through corporatist planning responds to the strategies of the corporate sector to utilize both artificial scarcity and artificial demand to promote corporate objectives. (Artificial scarcity is evidenced in the petroleum industry as demonstrated in works such as Robert Engler's The Politics of Oil.) As we observed above in connection with the utilities' forecasting practices, while evidence was mounting that their demand forecasts were too high, the utilities persisted in fighting against independent evaluations of their forecasts. That this was occurring during a time of capital scarcity, of mounting construction costs, and in a climate of criticism from environmental, community and consumer groups indicates that the utilities considered their own higher demand forecasts to be essential to the maintenance of their control of the electric system as a whole.

Although the Power Authority was successful in forestalling public review of its demand forecasting, there is evidence to suggest that it also utilized artificial demand through its construction program. For instance, the Comptroller's Office in New York State charged that PASNY was recovering most of its revenue from its nuclear plants, while

the lion's share of its generation came from its hydro plants.[103] Obviously, with rate structures that virtually guarantee profit over and above costs coming from a rate base, there were incentives to build more expensive nuclear plants because of the ability to pass costs on to consumers. Thus--because it was a means of artificially inflating the need for electricity--the Power Authority and the investor-owned utilities investing in nuclear power defended this technology because the alternative was less expansion and the possibility of losing out on a means of generating artificial demand.

In this regard, the Power Authority's activities indicate more than the reluctance of a public corporation to make public planning possible. The joint ventures of PASNY and Niagara Mohawk suggest that the planning conducted by PASNY actually is more private than public. This means that PASNY is more interested in maintaining and expanding its policy autonomy than it is in serving as a yardstick regulator. Furthermore, as tax-exempt corporations not subject to regulatory oversight to the same degree as investor-owned utilities, public corporations have wide latitude in policymaking. Thus, it is even more important to recognize that the autonomy central to the operations of the public corporation raises serious questions about the activities of these corporations in areas of public policy requiring planning.

In the instance of PASNY's battle to construct its 765 kv

line in Northern New York, its public-corporation status allowed it to circumvent the requirement of proving need for building the project. In addition, when the Public Service Commission granted PASNY authorization to clear the right-of-way while the health and safety issues were being reviewed, PASNY's move to go beyond the authorization by purchasing the support structures for a 765 kv line forced the PSC's hand in authorizing the line's construction for 765 kilovolt transmission. Furthermore, when the PSC originally was willing only to authorize a 345 kv line, PASNY conducted a public-relations campaign to convince the public that the abandonment of the 765 kv line would be cost-prohibitive.

It is clear that PASNY's financial autonomy as a public corporation made possible the purchase of the support structures and the financing of the public-relations campaign. The impact of PASNY's autonomy also can be seen in the dissent of Public Service Commissioner Harold Jerry, who wrote that the PSC had been "somehow terrorized by the Power Authority."[104] Jerry dissented on the grounds that the rights of parties to intervene in the health and safety proceedings had been impaired, and also because there had never been discussion for the record of the "nature and economics of alternative means of minimizing the impact of the line."[105] Further, PASNY has not shown any interest in exploring innovations in transmission when health and safety issues were raised concerning its project. This contradicts

the orthodox assumption that the public corporation form promotes entrepeneurial activity. Entrepeneurs do not resist technological innovation.

PASNY's style of planning is an example of what Otis Graham calls "plans without Planning", where measures are taken "to achieve selected goals in some sub-sector of society" without developing a framework for the formulation or achievement of economic and social planning.[106] Consequently, PASNY's operations provide an example of corporate planning, where a corporation develops strategies to achieve what Edward Herman would call "profitable growth".[107] Then the question may be raised: if public corporations do not promote planning conducted with public access and input, who does receive the benefits of public-corporation planning?

Ann Marie Walsh observes in The Public's Business: "The most rapidly growing sectors of government enterprise are designed to reduce the risks and to strengthen the profits of nongovernmental entrepeneurs in scores of businesses."[108] It appears that the public corporation is a very inadequate mechanism for facilitating public planning, because while it possesses the autonomy necessary for policy-making, it is not responsive to the public interest.

What should be the perspective upon which public planning is based? It is important to recognize that planning is not a neutral enterprise. It is based upon the assumptions and

objectives of the planner. Energy planning has been linked to industrial growth because of the link between low energy costs and overall low production costs, which produces higher profitability. But in the equations of energy planners, the risks of ecological, environmental, and health hazards are shifted onto farmers and rural inhabitants, as shown by the fight over the Massena-Marcy line and the siting of nuclear plants. Some "social consequences" are taken into account, but again these are measured by the standard of profitability. Or in the case of the public corporation, the standard is the marketability of its bonds. For effective public energy-planning, the private sector claims on public resources must be replaced by a logic which allows citizen access to policymaking, and which subordinates profitability to considerations of end uses of energy. The public corporation does not facilitate such a logic.

Public corporations are likely to be poor public-interest planners because their financial autonomy from the public sector compels them to place institutional maintenance high among their planning objectives. Since they receive their funding from the money markets of the private sector, autonomy from the public sector results in dependence upon the private sector. Furthermore--due to the fact that public corporations compete against other entities in the money markets for funding--their planning must pursue goals which make them an attractive investment.

Also, in Edwin Vennard's works on management in the electric-utility industry, planning is geared to financial concerns. Indeed, he notes that financing is "usually scheduled well in advance on a long-term basis."[109] This raises questions concerning the adequacy of rate regulation as a check on utilities, if the financing schedule of the utilities drives the rest of their planning. David Roe finds evidence of this in one of the rate cases desribed in Dynamos and Virgins.[110]

A more detailed look at the corporate-planning process reveals other sources of tension with public objectives. Perhaps as significant as the financing objective is the controlled access to information. In this regard, Roe explains that the specific components of utility forecasting models seem to be deliberately hidden to prevent close examination of their assumptions by regulatory commissions. When the Environmental Defense Fund generated its own forecasting program and counterposed it to the models produced by Pacific Gas & Electric, Niagara Mohawk and others, it was unable to get the utilities to reveal how they had arrived at their forecasts.[111] Clearly, the practice of withholding information as "proprietary" in the interests of protecting a utility's market position for financing seriously undermines the prospects for democratic planning.

Vennard claims that the overriding objective of utility planning during the crisis years of the 1970's was "to build

the percent return on investment to a full fair return and keep it there."[112] This was the case because rising energy prices, coupled with environmental concerns, resulted in a change in the environment for utility managers. In his words:

> It is precisely because of this severe change that management wants a long-range plan on financing, pricing, load management, expense control, employee and customer information, and all the other phases of the business.[113]

In order for utility corporations to control their costs of production in this new environment, they must restrict their planning objectives to include only those operations that provide a profit for them. This means that public corporations have less incentive to gear their planning to multiple purposes, in the tradition of the conservation movement. To give a specific example, Roberts and Bluhm note that the 1970's regulatory environment provided both public and private utilities with less incentive to invest in pollution-control equipment.[114] Thus, utility corporations both in public and private sectors fail to consider resources as public capital.

UTILITY COOPERATION AND CORPORATIST PLANNING

But the inadequacies of the public corporation are not the only reasons for the failure of public planning at the state and local levels. This also has much to do with the scale upon which the utilities operate. As noted earlier, one of the most important measures to tip the balance of power in the favor of private utilities against the municipal-power

movement was the Federal Water Power Act of 1920. In the 1970's and 1980's, utilities have been able to weather the storm of citizen involvement in energy-planning because of the federal sanction of regional advisory councils. The impact of this activity was noted in Centralized Power.

> State governments that have authority to coordinate both local planning and utility growth planning within their state boundaries tend to be circumscribed by the utilities' practice of planning on multistate regions through interstate powerpools and regional electric reliability councils.[115]

Contrary to these findings and to their original bypothesis, Messing, Friesema and Morrell state in their preface

> ...that large-scale power generation to date has not resulted in a uniform centralization of political authority at higher levels of government. In fact, several cases indicate that decisions involving large-scale powerplants have reinforced or increased political activities at the state and local levels by stimulating strong state responses.[116]

While it is true that activities have increased at these levels, it is not evident that the result has been the democratization of energy planning. Just as Kolko and others argue that increased government regulation does not necessarily result in a circumscribing of industrial power, increased activity at state and local levels may well suggest a more active government intervention at these levels on behalf of the regulated. McConnell's work on local government bias in favor of organized private interest bears repeating at this juncture. Speaking of the influence of private groups

with narrow constituencies, McConnell noted that business groups in particular have "where possible, relied on their own economic power, but have frequently used governmental agencies where this was more expedient."[117]

Further, in explanation of the changes in the government agencies deemed responsible for energy-planning, McConnell's work suggests that the IOU's needs were for a public planning process less responsive to constituencies advocating conservation, end-use planning and small-scale generation unfitted to the utilities' traditional central-station policy. That they were eventually successful in altogether killing the SEMP process indicates the corporatist planning bias against policy processes open to citizen input.

Corporatist planning here will denote industrywide planning by private interests with the sanction of the State. Its major objective is the establishment and maintenance of a system of production which preserves autonomy from public controls, and simultaneously provides the opportunity for the private sector's dominance over countervailing powers. The uneven and complex relationship between private industry and the state arises due to the contradictory functions which the state is required to perform, namely legitimization and accumulation (or as Robert Goodman describes it, policeman and accomplice).[118]

Not all segments of industry will be winners within a market economic framework, as is illustrated by Long Island

Lighting Company's experience in New York State; but the market is necessary to provide the legitimacy for the private sector's operations. That is why some of the planning regimen the New York Power Pool later adopted as its own initially was imposed upon it by the PSC, as Peter Schiff described. Despite the risks attendant with state intervention, the overall benefit of state sanction of private planning from the corporatist perspective is that the limits on the involvement of publics are then established by the State.

It follows that we may define democratic, or end use, planning in contradistinction to corporate planning--in terms of how democratic planning seeks to expand the arena of conflict in policy formulation. The greater the involvement of publics as well as private interest groups, the more complete is the picture of costs borne and benefits received by initiatives in the policy process. Democratic planning of the electrical system is not based upon the market determination of demand (what the traffic will bear), but rather upon needs as defined by involved publics. Consideration of end uses of energy then would dictate that any mechanisms of stimulation of artificial demand would be removed from the planning process and would be replaced by policy processes which take into account resource depletion, conservation potential, and demand management.

But several events here demonstrate the survival of the market as the framework for energy planning. First, the PURPA

legislation essentially provides for the reliance upon smaller-scale generation projects selling electricity to investor-owned utilities, to resolve the environmental crisis of central-station coal and nuclear generation. This does not extend the public domain over electrical generation, but instead merely looks to these small-scale privately-owned projects to increase the generating capacity of the entire system.

Second, despite the growing criticism of the load forecasting methodologies of the utilities, and although the Public Service Commission, the State Energy Office, the Department of Environmental Conservation, the Consumer Protection Board, and various critics such as the Energy Systems Research Group gained valuable load-forecasting expertise on their own--the utilities essentially have retained control of that aspect of energy planning.

Third, the public-power movement has stalled since the late 1970's, with few cities attempting to go to municipal ownership of their electrical service since that time. (However, there was a brief flurry of interest in the formation of "paper munis" during the debate over PASNY hydopower allocation, which mainly was a manifestation of the Authority's search for mechanisms through which to maintain its mandated market without in reality aiding municipal ownership.) Finally, in the research-and-development area, the inroads made by the PSC in oversight of r & d expenditures

as a result of the 149-b process were lost in the transfer of jurisiction over siting proceedings to the State Energy Office.

From the utility perspective, perhaps the most significant indicator of the development of corporatist planning is demonstrated by the joint construction efforts of the 1970's. While this trend already had evidenced itself with regard to research-and-development of nuclear power in the 1950's, the movement toward investor-owned utilities cooperation was boosted by the rising cost of building nuclear power plants that plagued the industry during that period.

There are a number of factors involved in the rising costs, including [1] more expensive safety equipment mandated because of more strict regulation; [2] higher costs of uranium fuel; [3] increases in labor costs; and [4] higher costs for licensing and litigation due to increasing citizen and community opposition.

The triumph of corporatist planning occurs when the corporate sector is able to establish and/or maintain--with the assistance of the state--the framework and appearance of a market economy, which it then transcends. In terms of the legitimation and accumulation functions, the presence of the market serves as the major factor in legitimation, while the major firms in the industry engage in planning to overcome the accumulation crisis on a more fragmented basis. In this market, we must recognize that consumers are not all equals;

so that the cost burden for industrial production is not borne equally. In the case of the electrical industry, industrial customers pay a significantly lower price for electricity than do residential customers, mainly because industry has a greater bargaining power within the market. As we will see, industry is moving in the direction of supplying more of its electrical needs in-house, as a means of lowering its overall cost of production. While there is an analogous movement in the upper-income levels of the residential sector, this movement places an even greater burden upon those residential customers whose income levels do not promise an escape from dependence upon utility service.

Corporatist planning, then, has as a central objective the maintenance of a market framework; because the likely alternative to a market system could be a form of planning where end use considerations gain in prominence. In concrete terms, the utilities' activities in resistance to the PSC 149-b process and to SEMP were based upon a perceived threat to the existing mode of determination of demand for electricity. To the extent that the electric utilities' forecasting methodology was geared to a built-in inflation of the demand forecast--and a consequent over-construction of generating capacity--any attempt from the public sector to circumscribe utility prerogatives in load forecasting would threaten the entire planning system. That is why the utilities used their resources in the political arena first to wrest the planning

process from an invigorated Public Service Commission, and then to gut the SEMP process.

Currently, the only full-scale planning process in operation is that of the New York Power Pool--besides the recently created process resulting from an executive order issued by Governor Cuomo.[119] Without belaboring further the struggles over load forecasting in terms of need for additions to generating capacity, given the amount of resources invested by the utilities in maintaining their control over load-forecasting--as well as acknowledging the investment of intervenor groups in challenging and replacing those load forecasts--it is obvious that this was of central concern to utility planners.

Thus, as noted above, the movement to install a planning process run by electric-utility initiative must be viewed in contrast to the type of open planning process of the first SEMP proceeding, where not only could the efficiency of generating-plant use be questioned, but also the end uses of electricity as a whole. By extension, community groups' arguments that proposed additions to generating capacity under Article VIII could be replaced by conservation and the development of sustainable energy sources also led to efforts to undermine these public-input initiatives.

The impact of the PURPA Act can not be overemphasized here. While the utilities were faced with the prospect of having to purchase electricity from small-scale producers,

this in many ways was a desired alternative--from the perspective of investor-owned utilities--to more extensive encroachment of solar energy and public power into the electrical system. Thus--as noted above--while PURPA increased the amount of competition to which the utilities would be subject, it did not threaten the market framework of determination of need for electricity.

However, the decade of the 1970's did produce several challenges to electric-utility practices designed to generate artificial demand for electricity. One such challenge was the regulatory pressure to abolish utility advertising encouraging increased electricity consumption. While utilities were prohibited from advertising directly to customers through bill mailings, the advocacy of electric heating and appliance usage continued.

A second challenge came, as noted above, from environmental and consumer agencies and citizen groups that took a more active role in questioning the efficiencies of generation and transmission technology. For instance, the plans of the New York State utilities for pumped-storage hydroelectric facilities in the early 1970's came under increasing criticism due to the inefficiency of this method of obtaining peaking power. In addition, as the on-line time record for nuclear power plants declined, there was more questioning in Article VIII hearings of the projections for capacity and life-of-plant. Similarly, while efficiency of

transmission appeared to be a supporting argument for 765 kilovolt lines over 345 kilovolt transmission, the distances over which electricity was to be transmitted--in the case of the Massena-Marcy line, ultimately from Quebec to the New York City metropolitian area--fuelled arguments that electrical-service burdens were being borne disproportionately by rural areas.

But perhaps the most costly challenge to utility artificial-demand stimulation came as industrial customers were compelled to examine more closely their electricity usage patterns, due either to cost concerns or to public pressure to change rate structures. For instance, the Business Week issue which questioned the viability of central-station generation as a pillar of the utility industry illustrates how serious was the pressure to re-evaluate utility policies.[120] That is why the various utility activities in the political arena--designed to maintain control over load forecasting, technological research and design, and at the same time to forestall rate-structure reforms--are so visible during this period. And the success of the New York State utilities in undermining public planning demonstrates the effectiveness of corporatist planning over the long haul.

CORPORATIST PLANNING AND THE STATE

While authors such as Joseph Camilleri, Robert Jungk, and others have written about the repressive aspects of the nuclear state, they focus for the most part upon state

activities which are threats to civil liberties.[121] But corporatist planning poses threats to civil liberties primarily from the private sector, which occur as pro-nuclear interests engage in surveillance and monitoring of the activities of anti-nuclear groups.[122]

The deliberate shrinking of the sphere of citizen involvement in public policy is the most significant threat produced by corporatist planning. While citizen intervenors distinguished themselves in terms of how quickly they grasped the fundamental aspects of electric-system planning, the hearing processes established under the PSC 149-b legislation--as well as SEMP--became increasingly expensive and professionalized, which threatened to cause many citizens to drop out of the proceedings.

As we will see in the concluding chapter, one of the prerequisites of a democratic public policy is the willingness of policymakers to engage in the education function crucial to meaningful participation. Corporatist planning not only fails to engage citizen participation in policy, but actively discourages it. In this sense, the threats to citizen liberties and the general decline of citizen participation--the corollary of corporatist planning--owes itself as much to the activities of the private sector as to the operations of the state.

Dealing with the evolution of planning in the electric-utility industry, Messing, Friesema, and Morrell

observe that the form of ownership does not seem to be a significant factor in determining the nature of the process or the responsiveness to the public. For instance, with regard to energy forecasting--as we have seen with PASNY's projections in support of the Cementon plant--its load-forecasting autonomy was jealously guarded against public scrutiny. They state:

> In instances where municipal power systems generate their own power, their planning is generally similar to the load forecasting and expansion planning of private utilities--based on extrapolations of past trends on models of anticipated regional growth.[123]

On a broader scale than load forecasting are the Power Authority's lobbying efforts to maintain exemption from Public Service Commission planning in the 149-b process and from State Energy Office planning under SEMP. Messing, Friesema, and Morrell argue that public-power systems in general have not functioned in such a way as to democratize energy policy. Regarding public power systems they state:

> Although they give the appearance of heterogeneity, diversity, and public ownership to the electric-utility industry, from the standpoint of system development they have served to support increased centralization through the provision of an extensive distribution and marketing network and the absence of a competitive interest either in owning and operating generating systems or in providing integrated energy planning in local planning decisions.[124]

The same could be said for rural cooperatives since the late 1950's, which have grown dependent for electricity upon the large-scale state or federally-owned generating systems.

The cooperation of municipally-owned power systems and of rural cooperatives with PASNY in its attempt to develop paper municipal electric systems is illustrative of this conclusion, as is the statement by an assistant counsel for the State Energy Office--who complained that municipal systems are inefficient in terms of energy use, have higher rates of use of electric heating, and resist attempts to redistribute PASNY hydropower on a more equitable basis.[125]

The key to understanding this activity on the part of municipal power systems and of rural electric cooperatives is the dependency upon state- or federally-owned generation. Massena, New York had to fight not only the Niagara Mohawk Power Company in order to have municipal power, but also the Power Authority of the State of New York. Without the events of the decade of the 1970's resulting in greater citizen input in energy-planning and a revitalized Public Service Commission, Massena may not have been successful.

This means that state regulatory agencies do play a role in combating the centralization of decision-making in utility planning. However, the results are not encouraging overall. Due to the lack of resources of state regulatory authoritites,

> Utilities still maintain the principal responsibility for determining the need for additional capacity, selecting and planning the types of facilities to be constructed to meet that need, and choosing sites. **State regulatory agencies then review and ratify the basic planning decisions of the utilities**, either through specific approval of plans or through approval of financial terms necessary for the planned expansion.[126]

The picture seems just as bleak at the local level:

> Except when a local government is operating an electric utility as a publicly owned system, either purchasing electricity or generating its own or some combination of the two, local governments do very little direct planning for electrical supply or for the siting of energy facilities.[127]

Again--while regulatory agencies have had some success in opening up utility planning for public scrutiny, it is the level of public input and participation in the policy process that makes the difference. And as these authors suggest, the record is not good for public bodies in checking the planning of the major investor-owned utilities. Further, the trend appears to be more advanced in the direction of utility cooperation against challenges to its planning prerogatives.

For instance, Joseph A. Camilleri observed a significant movement toward the concentration and centralization of energy decision-making accompanying the rise of what he termed the 'nuclear state'.[128] And Gerald Garvey concluded in 1977 in Nuclear Power and Social Planning that the United States would be compelled to accept an energy system based upon nuclear parks and on corresponding social planning to maintain economic growth, while the country was waiting for fusion technology to develop.

Garvey's argument unveils the crucial point of divergence between the critics of centralized-energy decisionmaking and those who regard it as a necessary evil: the question of economic growth. Garvey hinges his entire argument for the further development and adoption of nuclear plants upon the

need for growth, stating that the case for nuclear-energy technology is the "case for economic growth."[129]

However, although citizen interest was stimulated by the concerns for environmental degradation and health hazards, the response to utility planning of major forecasting additions to the generation and transmission system was to challenge the utilities' projections of demand, as we saw in Chapter Four. Of interest here are the structual changes in energy-planning administration developed in response to these challenges. From the perspective of public planning, the positive steps were the acceptance of non-utility load forecasting; funding for intervenor groups (especially in SEMP I); and the removal of PASNY's exemption from having to prove the need for its projects.

On the negative side are the lapse of SEMP after 1983; the earlier lapse of intervenor funding for SEMP; and the consequent revival of utility-dominated forecasting. One interesting development with regard to utility forecasting is that since the PURPA legislation ushered in competition from small-scale power producers, utilities actually may be underforecasting future demand in an attempt to slow down these developments.

CONCLUSION

For the most part, this study has focused upon artificial demand, which appears to be one of the underlying reasons for the utilities' adoption of nuclear-power technology in the

1960s and 1970s. Of course, the electric utilities' promotion of artificial demand as a strategy predated the 1960's and is demonstrated by the advertising for the use of electric appliances and for all-electric homes. But as these more obvious practices were discouraged and in many cases outlawed by regulatory commissions in the 1970s, the role of forecasting and capacity expansion became more central to electric-utility strategies to maintain the conditions for profitable growth.

The consequences of this movement are several, including: 1) Cost overruns in billions of dollars for nuclear plants, resulting from inflation, labor costs, and litigation generated by citizen opposition; 2) Increased hazards to health due to the existence of more nuclear power plants with greater amounts of radioactive fuel being produced and shipped, as well as extra-high-voltage transmission lines whose operation still is considered by some experts to pose hazards for human health; 3) A drain on finance capital, which exacerbated the effects of the oil shocks of 1973 and 1979 and worsened inflation; and 4) Threats to civil liberties as nuclear utilities moved to establish strict security conditions around plants, advocated the investigation of anti-nuclear groups, and sequestered information about nuclear power plants and about the nuclear fuel cycle from public scrutiny.

We might add to this list a cost resulting from corporate

planning in the form of increased frustration on the part of the citizenry with the workings of its representative government, and a weakened trust on the part of the citizenry in the accountability of its government. However, this is a tentative addition to the list of costs of corporate planning, subject to reconsideration as we turn to the promise of--and the stumbling blocks to avoid in--democratic planning.

Chapter Five - ENDNOTES

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VI. DEMOCRATIC PLANNING

The major objective of this concluding chapter, is to examine the activities of citizen intervenors in order to determine the prerequisites of an energy policy formulated through democratic planning. By no means would it be possible to perform an exhaustive study of the activities of citizen intervenors in energy policy, even if we were limited to the span of a single decade in New York State. Consequently, the major case study here will be of the Town of Massena, which fought with Niagara Mohawk and with the Power Authority of the State of New York in order to establish a municipal power system.

Of course, other activities already discussed here demonstrate the potential of citizen action in energy policy; I will borrow from them in this discussion of democratic planning. It is important to note at the outset that a distinguishing feature of democratic planning is a public determination of need for whatever good or service is to be delivered as a result of the policy process. As we saw in Chapter 5, a major objective of the utilities was to maintain a market determination of demand for electricity, which would preclude a public appraisal of end uses of energy and of the effectiveness of utility forecasting.

Because citizen intervenors were compelled to consider end uses of energy when engaged in attempts to undermine

utility justifications for additional generation and/or transmission facilities, we have evidence of how a public determination of need affects energy policy and how it might work to establish democratic planning.

When State Legislator Richard Brodsky drafted a proposal for public power in New York State predicated upon a PASNY buyout of the investor-owned utilities, one of the common opposition arguments dealt with the lack of accountability and poor management of some publicly-owned electric systems. The most obvious and oft-used example was the default of the Washington Public Power Supply System, resulting from its failed attempt to construct simultaneously five nuclear power plants.

The WPPSS debacle sheds light upon the related themes of this work: that public-agency operation of power systems is not an unqualified good; and, that citizen participation in energy policymaking is necessary to control and to offset the effects of utility planning. Consequently. a discussion of some of the literature on WPPSS follows.

WASHINGTON PUBLIC POWER SUPPLY SUPPLY SYSTEM DEFAULT

The best counterpoint to the argument of mismanagement and to the lack of accountability with regard to the WPPSS default is provided by the activity of the Seattle Public Utility District, which examined the WPPSS proposal for adding

the nuclear plants to the system and decided not to be included in the project.

Both David Myhra and D. Victor Anderson placed the lack of adequate public participation as a central cause of the WPPSS default. Myrha stated that the WPPSS program for five nuclear plants to be built simultaneously was unrealistic considering both construction complexities and nuclear power-plant economics. But,

> Blindness toward these realities was heightened by the historical interaction of WPPSS in the Federal Columbia River Power System--**the discouragement of public participation and honest reporting of the need for power** for the Bonneville Power Administration.[1]

It appears that the WPPSS situation paralleled that of many New York utilities, not only by the utility opposition to citizen input, but also because WPPSS--like the New York Power Pool--did not allow for a public appraisal of the need for its proposed plants. Again, Myhra's account is instructive:

> From WPPSS' beginning, its Board of Directors, Executive Committee, and Participants' Committee operated pretty much behind closed doors....all the power-plant planning was done during meetings of BPA officials and utility executives, to which the PUD membership and the general public were not invited.[2]

The rationale for this exclusion of the public was provided by one Glen C. Walkley, commissioner of the Franklin County Public Utility Commission:

> When you're talking about a lot of these scientific things, you don't want to jaw about things with [the public] all day. We're not going to argue back and forth with people. It takes all day. I don't care what it is, when you're talking about

something new, you're going to have againers.[3]

This relationship between WPPSS and the public did not develop merely out of the planning for the nuclear-plant program. WPPSS was established by the Washington State legislature and given the authority to operate with a great deal of autonomy, in part so that it would not be vulnerable to attacks by the investor-owned utilities. Consequently, the WPPSS leadership had developed a "closed-door, privately guarded organization" even before the development and failure of the nuclear power-plant program.[4]

Unfortunately--despite spirited efforts by opponents of the nuclear power-plant project not only to stop its development but to introduce other objectives into energy planning in the State--WPPSS after the default became even less responsive to ratepayers and to the general public in Washington State. For instance, the Washington State Legislature reconstructed the WPPSS' Executive Board, placing directors from outside the WPPSS member utilities in six of the eleven seats. What is more, only three of the remaining five members from public utilities in the Pacific Northwest were elected.[5]

Ironically, Chemical Bank's appeal on behalf of the bondholders for the nuclear power plants referred to them as the "true victims," and attributed the blame for the default to ratepayers:

> They, the ratepayers, had the responsibility to elect qualified utility managers and commissioners

> and the right to make these officials answerable to their electorate. Those ratepayers had the opportunity to attend public meetings and participate in every phase of the process that has resulted in this tragic financial loss.[6]

Before concluding the discussion here of the parallels between WPPSS and the activities in New York State in the 1970's, it is useful to note some of positive developments which arose out of the WPPSS' troubles. Citizen intervenors offered a public initiative to voters to place controls over WPPSS, specifically with regard to construction of power plants. Initiative 394 contained several provisions: 1) voter approval of the amount of money borrowed by public agencies for major power plants; 2) voter approval for cost overruns beyond 200%; 3) voting to be confined to the service area or membership area of a utility group; 4) a requirement for an independent-consultant study of the cost effectiveness of proposed plants; and finally, 5) a broad statement of objectives for energy policy:

> ...Initiative 394 would set up a hierarchy of priorities for planning and financing future publicly financed energy projects. Conservation efforts would have top priority for revenue-bond issues followed in declining order by projects that would use renewable energies, waste fuels, super-efficient fuels, and last, nuclear energy.[7]

Despite being outspent by over six times--with major donations to Initiative 394's opponents coming from contractors, suppliers, aluminum companies, and interested investor-owned utilities--voters approved the initiative by a vote of 495,000 to 356,700. However, the banks serving as

bond trustees for nuclear plants 1, 2 and 3 filed suit; and the U.S. District Court declared Initiative 394 unconstitutional as applied to those three plants because it would impair existing contracts. In this way, despite public intervenors' attempts to establish controls over public utilities and to obtain input in energy planning, they were frustrated in their attempt to save WPPSS from its default.

The City of Massena's attempt to establish its own municipal power system is an instructive parallel to that of WPPSS because it illustrates not only the efforts of public-power advocates to make energy policy, but also the efforts of investor-owned utilities and of PASNY to frustrate citizen input in energy policy.

MASSENA MUNICIPAL POWER

Massena's decision to study the possiblity of a municipal takeover of its electric-distribution system from Niagara Mohawk in 1973 began a six-year battle with Niagara Mohawk Power Company, and--according to some participants--with the Power Authority of the State of New York.

The study, requested in 1973, estimated a cost of $4.5 million for the power system. Although disputed vigorously by Niagara Mohawk, Town of Massena voters approved a referendum in 1974 for $4.5 million to pay for the takeover. The center of the controversy was that although the Town of Massena was able to contract its power from the Power Authority, Niagara Mohawk owned the distribution facilities connected to the

town's system, and refused to wheel the power. Consequently, the Town of Massena initiated an antitrust suit against Niagara Mohawk. Before this dispute between Massena and Niagara Mohawk was resolved, the Federal Energy Regulatory Commission and the Power Authority of the State of New York became embroiled in the battle as well.

Niagara Mohawk's efforts to obstruct Massena's municipal takeover illustrate the difficulties faced by public-power advocates when their relatively limited resources are tested in a fight with an investor-owned utility. By the time Massena actually was successful in the takeover in 1980, their projected cost for the takeover almost had doubled; and attorneys for the town claimed that part "of Niagara Mohawk's stategy [was] to prolong the legal fight to bankrupt Massena."[8]

In fact, Massena's town supervisor expressed concern about whether there would need to be an additional referendum to pay for the court battle:

> Mr. Richey described Massena's financial situation as "precarious" regarding its bid to operate a municipal power company.[9]

An administrative-law judge for the Federal Energy Regulatory Commission also suggested that Niagara Mohawk's argument in the courts was designed to garner such a high value for its condemned property that it "may well demean Massena's assets to establish its own distribution system."[10]

When Massena's antitrust suit against Niagara Mohawk appeared to be too time-consuming for the town to continue because of the costs involved, it initiated a request for a ruling by the Federal Energy Regulatory Commission to require Niagara Mohawk to wheel power from the PASNY lines to the town. Yet the FERC ruling proved to be even more problematical because it concluded that--according to a contract between the Power Authority and Niagara Mohawk--"Niagara Mohawk only has to wheel PASNY power to municipal electric systems that were in existence at the date of the contract in 1961."[11] On the other hand, the FERC indicated that the 1961 contract itself might violate antitrust law by excluding new municipal systems from receiving PASNY power.[12]

While the antitrust suit and the FERC ruling were undergoing appeal, it also appeared possible that the power contract between PASNY and Massena would expire.[13] The contract itself had stated that if electrical service "has not started within two years from the contract date it may be terminated within 30 days' notice".[14]

The relationship between the Power Authority and Massena as described thus far appears to put PASNY in the light of being supportive of Massena's attempt to establish municipal power. However, when FERC Administrative Judge Raymond Zimmet looked into the contracts between PASNY and Niagara Mohawk relative to the Niagara Power Project, he concluded that PASNY

was collaborating with Niagara Mohawk against Massena and attempting to hide this collaboration from the Commission.

In broad terms, Zimmet ruled that the "present customer's" contracts were unduly restrictive and anti-competitive, and he concluded that a "hard look needs to be given to PASNY and to each contract which this state agency has entered into with investor-owned wheeling agents concerning the Niagara Project."[15]

In fact, Zimmet's decision pointed to evidence of PASNY collaboration with Niagara Mohawk regarding the terms with which the investor-owned utility would wheel power to Massena. In the proceedings, Niagara Mohawk had introduced into evidence a letter dated February 12, 1979 from one of its officers to a PASNY official. The letter in actuality was drafted jointly by Niagara Mohawk and the Power Authority's staff. The following is from the decision of Judge Zimmet:

> The letter, with its terms and conditions, is the product of a series of meetings between Niagara Mohawk and PASNY, which meetings at the behest of Niagara Mohawk began in earnest in November of 1978--shortly after the PASNY-Massena contract was signed and the New York Court of Appeals ruled against Niagara Mohawk.
> The terms and conditions spelled out in the letter, as agreed to by PASNY's staff--but not yet approved by the Board of Directors--would aid Niagara Mohawk in the antitrust case, this show cause proceeding, and in the company's fight against Massena in the condemation proceeding. Though the letter carries the date of February 12, 1979, that date is inaccurate, for the letter was not finalized until months later, in June 1979--a fact which neither Niagara Mohawk nor PASNY explained until Niagara Mohawk was questioned about it.[16]

This collaboration demonstrates that the Power Authority

was working with Niagara Mohawk to frustrate municipalization. Judge Zimmet ruled that although PASNY had allocated power to Massena conditionally by its failure to make a firm arrangement for power transmission from Niagara Mohawk--and because of its narrow interpretation of the "present customers" clause of the Niagara Power contract--the Power Authority had violated its Niagara license.

This is not an isolated instance. The City of Sherrill, New York had purchased the facilities of a small investor-owned utility, and wanted to receive PASNY power instead of Niagara Mohawk power. The city was compelled to bring a court action against Niagara Mohawk and PASNY because, as with Massena, Niagara Mohawk claimed it did not have to deliver PASNY power due to the "present customer" clauses of its contracts.[17]

As Massena in 1979 was struggling financially to keep its municipalization effort alive, PASNY announced that it would provide no additional hydroelectric power to the municipally-operated systems and cooperatives in the State. After the FERC decision in late 1980, the Power Authority renegotiated its contracts with ALCOA and thereby locked away until the year 2013 the power it would have been able to withdraw in 1986.

The Authority's effort further to remove power from the municipal electric utilities of New York State through the creation of a Residential and Rural Energy Authority

demonstrates some circumstances to avoid in the establishment of democratic planning. Thus, it deserves separate discussion below.

PAPER MUNICIPALITIES AND ARTIFICIAL PUBLICS

Along with the City of Sherrill's attempt for a municipal takeover and along with the success of Massena, there were moves in the direction of municipal takeovers in Westchester County, in Suffolk County, and in New York City and Buffalo between 1979 and 1981. By the summer of 1981, the Power Authority had proposed that a Residential and Rural Energy Authority be created in 1985 to take Niagara power to municipally-owned utilities. Then PASNY would "create a paper public body that would qualify as a preference customer under the Niagara Redevelopment Act, funnel the power to residential customers of the downstate investor-owned utilities by leasing their lines, and save every residential customer several dollars on their electric bills."[18] At the same time, this action would have destroyed the municipal-power movement by removing the hydropower preference for publicly-owned utilities. In effect, the Authority's RREA proposal constituted an abandonment of the objective of expanding the publicly-owned portion of the New York State electrical system and, at the same time, a removal of the yardstick aspect of its own operations.

When it was created in 1931, the Power Authority was charged with demonstrating the real costs of hydroelectric

generation in order to provide a standard of comparison for investor-owned utilities charges. While the Power Authority was to continue to be responsible for electrical generation on the St. Lawrence and Niagara Rivers and for distribution to existing publicly-owned systems, the abdication of its distribution responsibilities to the investor-owned utilities through the RREA certainly would have a chilling effect upon the creation of new municipal systems because of the greater difficulty in receiving backup power. Massena's experience is instructive here.

What the Residential and Rural Energy Authority (RREA) represented was a corporatist artifice designed to forestall the public-power movement's gains. Clearly the Authority was not promoting this policy as a means of facilitating public involvement in energy policymaking, since it continued to press municipalities to create their own local versions of these sham municipal entities when the Legislature did not act on RREA in 1982. While the power delivered to residential customers through the RREA concept would be less expensive than the existing rates, it also would be passed through the investor-owned utilities--which would be responsible for the demand forecasting for those customers. Thus, the RREA would make less likely the creation of new municipal utilities which could conduct independent load forecasting.

One of the rationale of the Power Authority for the RREA deserves mention here as an example of a circumstance to avoid

from the extension of public ownership of the electrical system. According to the Authority's report, entitled Allocation of Hydroelectric Power, residential customers of municipalities receiving low-cost hydropower consumed nearly 1.5 times as much electrical energy as their counterparts served by investor-owned utilities. A major cause for this disparity resulted from the differences in use of electric heat:

> The percentage of residential customers who heat by electricity in the municipal systems is as high as 80% and averages 25%. On the other hand, in the upstate investor-owned utility systems, only about 7% of the residential customers use electric heat.[19]

Considering the inefficiency of using electricity for space heat--Barry Commoner computed that "about two-thirds of the energy content of the ultimate source of the energy...is wasted"[20]--it is necessary to recognize the shortcomings of municipal systems that have no incentives to explore demand management and energy conservation because of their low rates. At this time the discussion turns away from the pitfalls toward some of the essential features of democratic planning.

DEMOCRATIC PLANNING

The literature on democratic planning mainly emphasizes the types of considerations democratic planners should utilize. For instance, E. F. Schumacher emphasizes the necessity of recognizing natural resources as a form of capital, and urges that planners take into consideration the entire ecsosytem.[21] Schumacher's conception of resources as

capital is very similar to the Progressive Era view of conservation, which stressed efficient use of resources. A follow-up work by an associate of Schumacher's, George McRobie, emphasizes the principle of using intermediate technology as a counterpoint to the economies of scale supported by corporate planning. In addition, the Conserver Society envisioned by McRobie would contain technology valued for its smallness, simplicity, nonviolence, and capital-saving features.[22]

Barry Commoner argues that research-and-development funding was the critical point in terms of establishing the type of technology advocated by Schumacher and McRobie. In addition, he calls for the consideration of end use efficiencies in determining energy policy.[23] Amory Lovins also places consideration for end uses at the center of a democratic energy policy.[24] However, the failure of Lovins and of the other authors mentioned above is in their lack of attention to the means to establish effective citizen control over technology and end use considerations. Consequently, we return to a discussion of publics.

The discrediting of democracy in its post-World-War-II form came in works such as Seymour Martin Lipset's Political Man and, later, The Crisis of Democracy by Samuel Huntington, Joji Watanuki and Michel Crozier.[25] Lipset built the case against the expansion of democracy on the basis that those groups of people who were uneducated and lacking in interest

in politics tend to embrace authoritarianism.

In addition, the literature opposing economic planning developed from various appraisals of planning by the Soviet Union. For instance, Friedrich Hayek's influential The Road to Serfdom, published in 1944, warned the West of the threat to individual liberty posed by collectivism. Hayek proposed the "invisible hand of the market" as the antidote to collectivised planning. Part of the basis for this concern came from the experience of Nazi Germany, where the central question facing analysts was how the German citizenry could have endorsed the emergence of the Nazi state. Conversely, pluralists in the postwar era came to accept the notion that an unmobilized public not only was not a danger, but was perhaps even a positive good. With the lack of interest and rationality of those of low socioeconomic status, it would be better to have apathy in order to insure social and political stability.[26]

But it was the lack of functional apathy that by the early 1970's served as a source of concern for the Trilateral Commission, as evidenced by Samuel Huntington's claim that the United States was suffering from "democratic distemper"--excessive demands placed upon government by political movements. Huntington argues, of course, that the growing demands for welfare-state expansion place tremendous strain upon the energies of economic growth in the United States. Huntington suggests that this strain could become so great as

to lead to a parting of the ways between democracy and capitalism. His choice is to place limits upon democracy in order to save capitalism in the United States.[27] Obviously, the value underlying Huntington's argument is the desire for economic growth.

What the critics of corporate energy policy agree upon are the dangers posed by an energy policy which uncritically promotes economic growth. Clearly evidenced in the works of Lipset, Huntington, and the pluralists is an argument supporting decreased public participation in public policy. In this sense, the supporters of corporate planning appear to be very aware of the potential for publics actively involved in policymaking to effect significant changes in energy policy--specifically, a change from a growth-at-any-cost energy objective to one which places in policymaking concern for the conservation of natural resources, for increased use of renewable resources, and for consideration of end uses of energy.

The contention here is that the most effective means of achieving the democratization of energy policy is through the cultivation of publics. Although various authors--even some of the technocratic advocates--recognize the need for a more open energy policy, analysis of how publics are created and maintained is scarce. Borrowing from the experiences of the citizen intervenors in New York State, the following is an attempt to outline some of the features of a "publics-

oriented" energy policy.

PUBLICS AND DEMOCRATIC PLANNING

The school of thought which distrusts democratic potential makes the fundamental error of assuming that, in the absence of government planning, no planning is occurring. However, we observed in Chapter Two that after World War II, planning became a widely used practice in corporate operations. And it is fallacious to assume that corporate planning, in narrowing the range of public policy responsive to citizen initiative, does not have an impact upon individual efficacy.

More specifically, when policymaking is conducted in the private sector without public involvement through citzen oversight, de-politicization is encouraged. Michael Watson argued that since the 1950's the perspective had been developing that planning could be an instrument of rationalization in the existing economic system, provided that the business community was in control of the planning apparatus.[28] According to Watson, the consequence of this is that planning, which once was considered to be central to the development of social democracy, could be utilized to produce the opposite.

In contrast, several other contributors to Planning, Politics and Public Policy bolster the argument that citizen participation is an essential element of democratic planning. They attribute the success of Italy's regionalisation of its

planning process to the politicization of the process and to the resulting awareness on the part both of planners and of citizens of planning's potential.[29] Furthermore, these authors have concluded that "to be valid, democratic planning has to be built on the practice of self-management."[30]

Consequently, we need to be concerned with more than the cultivation of publics, including the question of how to keep open access for publics to be involved in planning. The same authors observe that the general trend of planning is in the direction of corporatist planning, with the major objective of economic growth. Apparently the rise of corporatist planning owes itself to the failure of technocratic, or apolitical, planning. In response to the public-interest group demands for greater access to public policymaking, corporatist planning has the advantage over technocratic planning of being politicized, albeit with participation by pre-defined, artificially created publics acting only in support of corporatist objectives.

Membership in the corporatist planning circle is determined by the willingness of the group in question to accept private sector control of planning and the objective of promoting economic growth. That is why Michael Watson concludes in his overview of planning in liberal democratic states that the nature of planning is "that of being an instrument of rationalization for the system rather than a process of socio-political change from within.[31] The

consequences of this decline of socio-political reform as planning's primary objective are inflation and the legitimacy crisis of the state. Watson's prescription here is presented in his own words:

> The development of a more democratic decision-making process in the economy could be expected to help free government in its planning endeavours from the dominance of a one-dimensional economic ideology sustaining modern capitalism in its frenetic course of expansion, concentration and therefore inflation..."[32]

Watson saw the democratisation of corporate policy through employee-elected boards as a means not only of improving labor's weak position in planning, but also of bolstering the State by increasing the legitimacy of its planning:

> To re-equilibrate the role of government's major 'partners' is necessary if political rationality is to be embodied in a way conducive to the integration and coordination of action that planning requires, above all by restoring a greater autonomy to government as arbiter, and thereby in its strategic use of public power.[33]

Watson argues that, without greater autonomy from the corporate sector, the state is threatened with the loss of legitimacy. Watson concludes that the development of corporate planning has produced contradictions within capitalism that have raised the likelihood of more attempts by publics to assert themselves into policymaking.

In the same vein, Bowles and Gintis go so far as to interpret the schism between capitalism and democracy as an indication that Huntington's dilemma is very real. However, they focus upon those instances where democracy has flowered;

and consequently their interpretation of recent history is one where capitalism is being undone by citizen involvement in investment decision-making.[34] Presumably, this growth and development of democracy eventually would lead to the displacement of capitalism.

What this study modestly suggests is that as citizen intervenors in energy policy began to search for vulnerable points in the utility-planning scheme to construct major generation and transmission facilities, they found that refutation of the case for need often was their most powerful weapon.

And when some of these intervenors began to look more systematically at end uses of energy, they discovered great waste and correspondingly great potential for conservation. This is but a small step from the recognition that individuals, communities, and regions could define need for themselves. This is the characteristic of individuals in genuine publics which emerges most clearly in this look at the response to corporate planning.

The democratic planning literature suggests that recognition of the aptitude of human beings to determine their own needs in one area would not be confined to that area.[35] In other words--the more democratic the process in energy policymaking, the more likely that citizens would be able to envision and to realize the potential of taking charge of policy in other areas. The converse of this spillover would

be the narrowing of the scope of citizen input in policymaking, which results from the fragmentation of policy and/or the narrowing of objectives.

As government planning became increasingly identified with the promotion of economic growth, various planning adherents became caught up in making this the prime objective of their activity. Through the 1930's and 1940's, the public-power movement, the Tennessee Valley Authority, and PASNY had, as a central objective, economic growth. More specifically, the public-power movement gained much of its impetus from the private utilities' reluctance to expand service to rural areas and to provide affordable electric service in some urban areas. The Rural Electrification Administration is perhaps the classic example of a government policy designed to fill in a vacuum left by inactivity in the private sector.

PASNY's and TVA's early histories demonstrate that a large part of their raison d'etre was to expand electrical service. To the extent that the municipal utilities became closely tied with government power agencies, their own energy-policy perspective reflects that of those organizations. The lack of greater citizen involvement in energy policy is a function of the fragmentation of objectives which emerge from the various publics vying for input in energy policy.

A significant part of the public-power movement is pro-growth, critical of the efforts of environmentalists and anti-nuclear advocates whom they consider to be the cause of

their rate increases and--as Douglas Eldrige of the New York State Energy Office noted--uninterested in conservation. We noted earlier that despite Gerald Garvey's various concerns and criticisms regarding nuclear fission as a means of generating electricity, he nonetheless recommended expanding its use in the short run as a means of achieving the objective of economic growth. By contrast, Andrew Shonfield looks at the increased use of national economic planning to achieve economic growth unchecked by public considerations as an impediment to "the attainment of things that people most deeply want."[36]

Thus, a large part of the public-power movement's failure in the 1980s has to do with its embrace of the policy of economic growth at a time when some segments of the same movement were looking in the direction of conservation, the development of renewable resources, and energy planning through analysis of end uses. The more the public-power movement became idenitifed with the utilities' economic-growth perspective, the greater the rift that developed with conservationists.

What was remarkable about the citizen groups who opposed the utilities' policy of using nuclear power was that they developed tools for analysis of the demand for electricity and became sophisticated critics of the forecasting methodology of the utilities, while the prevailing direction of energy policy was to plan for incremental growth.

ON PUBLICS

Thus far, the analysis of corporatist planning has demonstrated that one of its major objectives is the preservation of a market economy, which, for the purposes of this analysis, means the preservation of a non-public determination of need for a good or service. Maintaining this market system requires that corporatist planning be engaged in the destruction of publics, because they threaten to displace the non-public determination of need with a public one. John Kenneth Galbraith suggests in American Capitalism that concentrated centers of power in society will be balanced through countervailing powers which arise organically to challenge these institutions of concentrated power, providing they receive assistance from a responsive government.[37] He thus recommends that government policy should be geared to the encouragement of those countervailing powers; for instance, by assisting organized labor and consumer organizations.[38]

Here in our consideration of the ontology of publics, a central question suggests itself: how do corporate planning and the corporate political economy serve to generate publics? Regarding the question of the relationship between publics and the corporate political economy, it is necessary to expand the definition of a public coming from Hans Gerth and C. Wright Mills. For these authors, a public is a discussion group of people who have the right to advise and to criticize government, and who confront themselves with issues.[39] The

definition needs to be expanded to include not only criticism of government but of non-government institutions as well--in this case, the corporate sector.

Several authors have looked upon publics as vehicles for democracy, noting that they represent a middle ground between individuals and the state,[40] that they serve to cultivate democratic personality,[41] and, finally, that they are the foundation for the establishment of democratic culture.[42] Thus, the appearance of citizen-intervenor publics on the energy-policy scene in the 1970's might be the result of perceived threats to aspects of the democratic culture of those groups. Lawrence Goodwyn bases his interpretation of Populism upon not only the political economy of the crop-lien system, but also upon the various aspects of democratic culture in the late-nineteenth-century U.S. that appeared to be threatened by the industrialization of the United States.[43]

For our understanding of democratic planning, the significance of publics is that they serve as the vehicles for the formulation of values upon which public policy is based. Hans Gerth and C. Wright Mills borrow their definition of publics from Hans Speier:

> ...a public exists whenever people outside a government have the right to give advice and criticism to the government.[44]

John Dewey claims that the source of a public is "the perception of consequences which are projected in important

ways beyond the persons and associations directly concerned in them...."[45] This perception of consequences leads the individuals into forms of conjoint action in order to supervise and to regulate the consequences. But the public is incapable of this regulation on its own because "the essence of the consequences which call a public into being is the fact that they expand beyond those directly engaged in producing them."[46]

In this way publics participate in the formulation of the state; because as they organize themselves to regulate these consequences, they establish "special agencies to care for and regulate these consequences."[47] But publics become influential in the activities of the state only insofar as they have "weight in the selection of official representatives and in the definition of their responsibilities and rights."[48]

Of course, publics are not natural phenomena, but are historical creations. This follows from Gerth and Mills' formulation that man is a historical creation who can be "understood in terms of the roles which he enacts and incorporates."[49] The roles in turn are limited by the social institutions of the particular historical period, which provides the key to our concern for publics. With the rise of corporate planning, there is a corresponding increase in the number of "organized publics and audiences",[50] which arise as products of that planning. Furthermore, corporate planning

undermines the public's capacity to evaluate, criticize and act upon the plans of corporate planners.

What the problems of corporate planning illustrate is that democratic planning should be considered not only as a more environmentally and fiscally sound form of public policy, but as a necessary replacement for corporate planning. For as we noted in Chapter I, publics are the political alternative to the mass, which is easily manipulated through advertising and various other methods of capturing the popular imagination.

Barry Casper and Paul Wellstone claim that the major cause of the involvement of Minnesota farmers in opposition to a 765 kilovolt transmission line was the farmers' feeling that this project was in violation of their responsibility as stewards of the land.[51] This would appear to bear out Mills' formulation in The Sociological Imagination that, in genuine publics, people are aware of their values and are mobilized when they perceive threats to their values.

However, in this study we have attempted to locate the wellsprings of democratic planning not only in culture but also in the U.S. political economy. While the consequences of the utilities' plans in the 1970's did indeed threaten the values of the citizens engaged in efforts to stop the utility projects, the most useful points of attack for the citizen intervenors were criticism of the utilities' plans from standpoints of need and financial costs. This would reinforce

what John Kenneth Galbraith recognizes in American Capitalism--that groups would arise in oppositon to the concentration of power in the American economy--but it is necessary to look even more closely at the phenomenon of how publics develop in order to see how they are related to political economy.

Galbraith's formulation of countervailing power seems almost to suggest that publics owe their origin to an organic development. The role of the state in this formulation is to assist and perhaps in some cases to accelerate the development of countervailing power. However, this idea from American Capitalism later was abandoned by Galbraith. As we have seen above, corporate planners have developed artificial publics--which not only belies the notion that they are organic and simply need assistance, but suggests that they may be altogether artificial.

Publics develop in dialectical form, from the contradictions arising within the political economy. The political economy of the nuclear-power cycle threatened community values, individual property rights, individuals on fixed incomes, and public health and safety. While intervenors were not as successful in pointing out health hazards in discrediting the electric-utility industry, they were successful in undermining the utilities' case for need. In this sense the utilities' financial problems and the criticisms of their forecasting and their arguments for need were the significant factors in the successes of citizen

intervention.

Further, if the development of publics is a dialectical one, we should see not only that publics arise from political economy--but also that political economy arises from publics. As we have suggested thus far and will expand upon below, very different objectives of energy policy emerged as a result of greater citizen participation, including greater emphasis on renewable resources; conservation; small-scale technology; consideration of end uses; public accountability of energy planning; and equitable economic development.

PUBLICS AND ENERGY POLICY

The community organizations and environmental groups involved in energy policy were most visible by their intervention in land use policy, i.e. power-plant siting; but were most effective in challenging the utility forecasting of future need for electricity. This suggests that the most fruitful contribution that publics can make in policymaking is to challenge the principle that a private determination of need is the most efficient. The example of Seattle public utility districts' decision to opt out of the WPPSS plan is instructive here.[52] It indicates that community-based public policy not only is beneficial in terms of encouraging citizen virtue, but is beneficial from a practical economic point of view as well. For instance, Fred Levine of the Consumer Protection Board stated that the effect of citizen intervention in New York State energy policy was the saving of

billions of dollars on unnecesssary generating capacity.[53] To the extent that demand forecasting is tempered by public intervention, the potential for utility manipulation of the market declines. And in those instances where citizen intervention extends to a critique of the end uses of energy generation--particularly of heavy industry--the possibility of a truly democratic energy policy emerges.

Perhaps the most common defense of large consumption of energy by industry comes from the claims of increased employment. However, citizen groups began to take aim at some of these claims, and were able to develop models of correlation between energy use and employment that undercut industry claims. Authors such as Amory Lovins, E. F. Schumacher, Hazel Henderson, and Richard Grossman and Gail Daneker presented evidence that an energy policy geared to conservation rather than to increased consumption actually held greater potential for employment.[54] These models demonstrate how public consideration of end uses of energy can lead to the expansion of citizen involvement in, and commitment to, the policy process.

Barry Commoner argues in The Politics of Energy that it is unclear whether there is a direct connection between levels of energy consumption and economic growth--except that high energy prices can forestall growth.[55] He is joined in this argument by Amory Lovins, who notes that wasteful end uses of energy do not bring growth. E. F. Schumacher takes this point

further by raising questions about the correlation between economic growth and progress, thus making his contribution to the debate by looking at energy policy from a fresh perspective.

For Schumacher planning is not a neutral enterprise, but one which necessarily is based upon the assumptions and objectives of the planner. Thus, the connection between energy planning and industrial growth results from the link between low energy costs, and overall low production costs yielding high profitability.[56] As long as industry can count on relatively inexpensive energy costs--largely from the declining block-rate structure--utility planning for incremental growth in generating capacity is not deemed inconsistent with industry's needs.[57] However, from the perspective of generating jobs, Schumacher's position is unequivocal: centralized production and generation do not produce jobs.[58]

Citizen intervenors in Article VIII proceedings emphasized the potential of conservation as an energy source primarily because it struck at the heart of the growth-at-any-cost rationale for generating-capacity expansion. Their arguments were buttressed by several studies supporting the claim that greater employment opportunities would result from a shift to energy conservation. For instance, the Bonneville Power Administration concluded:

> High impact conservation programs create more jobs than would be created by building new power plants to generate an equivalent amount of energy.[59]

Amory Lovins' Senate testimony indicated that new jobs generated from conservation programs would range from tens of thousands to nearly one million per quadrillion of BTU's of energy saved.[60] Another study indicated that the production of highly energy-efficient appliances created more employment than the production of inefficient ones, because of the greater time and care needed for quality construction. In addition, the higher initial cost of the appliance is more than offset by reduced electric bills, leaving more income left for consumer goods purchases, which generate more jobs.[61] Finally, a Federal Energy Administration report projected the outcome of simple energy efficiency increases in 34,372 private homes:

> By 1985, natural gas supply would be increased because of the saving of 1,212 billion cubic feet. This is the equivalent of the gas to be obtained from the major discovery at the Alaskan North Slope. It is also about the equivalent of the output of 39 one-thousand megawatt electric thermal power plants. Consumers in these 34,372 homes would save $1.7 - $2.3 billion in heating costs.
> The work would cost $7 - $10 billion, compared with $17 - $20 billion for 39 large fossil fuel power plants; 487,000 jobs over 7 years would be created: 122,000 in manufacturing, 366,000 in local installation.[62]

The report also emphasized the fact that the jobs created by these conservation techniques [installation of insulation and automatic thermostats, and retrofit or replacement of furnaces] would be located in urban areas of

acute unemployment and require low-to-moderately-skilled local labor. This can be contrasted with the findings of Richard Grossman and Gail Daneker that:

> centralized, expensive energy production complexes usually have to bring in highly-skilled labor from outside the consruction area. These transients create a large amount of disruption: temporary housing and many services must be supplied to meet the problems temporary workers create. In the energy "boom towns" of the Western United States, crime, alcoholism, and family break-ups are well above average. Serving the needs of transient labor ends up being a drain on the local economies the transients were supposed to be stimulating.[63]

A democratic energy policy also would demonstrate a preference for fuels and energy technologies that provide an alternative to corporate energy policy. As this study demonstrates, the declining block-rate structure leads utilities to prefer capital-intensive technologies--resulting in a lack of capital availability for investment in other areas.

END USES OF ENERGY

A democratic energy policy necessarily involves the setting of priorities, by publics, for the kind of projects for which resources will be committed. Thus, concern for conservation of non-renewable resources, for the limitation of environmental degradation, and for threats to health--decisions on adoption of different technologies representing drains upon capital resources--lead inexorably to debate over whether these resource investments "pay out." Without such debate, the profit motive of industrial consumers of

electricity subsumes these public priorities.

For instance, the aluminum industry uses several times as much electricity to produce a beverage can as would be needed to produce a glass bottle.[64] In order to be able to afford offering aluminum as an option for consumer beverage containers, the industry maintains close ties with the private electrical-utility industry, and takes advantage of declining block rates. Furthermore, the aluminum industry has been quick to take advantage of centralized public-power generation plants which offer low rates to industry as an incentive to employment--as has been the case with Reynolds Metals Company and ALCOA with the PASNY plants on the St. Lawrence River. These same companies encourage the utilities' practice of not pursuing riverbasin development along with power generation.

But the advantages to the aluminum industry provided by inexpensive electricity redounds to a disadvantage to the public, as more generation plants are needed to meet the consumer electrical demand that is unmet because of the bonus to the industry. The increased capital costs for businesses competing with utilities in the money markets, greater consumption of fossil fuels or uranium in new generation plants, denuding of corridors for transmission lines to bring the power to load centers, and possibly adverse environmental and health effects are the material costs of having to construct additional capacity. The political costs are

demonstrated by public acceptance of the aformentioned material costs; by the institution of siting procedures that override viable local planning processes; and the centralization of policymaking to balance the centralized decisions of utility planners.

Barry Commoner notes in The Poverty of Power that the National Science Foundation has given little hope for solar energy to provide a significant part of the nation's energy needs by the year 2000.[65] But here Commoner raises the point that the central problem with solar energy is not the technology, but the lack of investment in research-and-development made by the energy industry or the federal government. Ray Reece in The Sun Betrayed documents the efforts of electric utilities, of energy companies, and of the United States Government to frustrate the development of solar energy technology.

But despite the corporate capture of energy policy, Reese also discusses examples of efficient applications of solar technology. For instance, a catalog compiled by the Citizen's Energy Project yields these examples:

> 1. A wood-energy conversion program in Vermont which has stimulated a six-fold increase in the use of wood for home-heating since 1970;
> 2. Serious R & D programs by the governments of Iowa, Minnesota, California, and Montana designed to encourage small-scale renewable energy technology specifically tailored to each respective regional climate [Montana's program is financed by a 2.5 percent levy on the state's coal-severance tax];
> 3. A "new town" project in Cerro Cordo, Oregon which hopes to achieve near-total energy self-

> sufficiency for its 2500 residents through the deployment of renewable technologies ranging from solar heating and methane gas production to horse, trolley, and bicycle transit systems;
> 4. A boldly innovative fuel conservation and solar development program in Davis, California, whose major components include a new building code strongly favoring solar applications, city-funding construction of prototype homes and apartments that are 90-percent solar-powered, citywide gardening and waste-recycling systems, and heavy emphasis on bus and bicycle transportation--all aimed at reducing the city's annual fossil fuel consumption by 40 percent in 1990 [it has dropped five percent since 1975, while energy consumption in neighboring cities has risen six or seven percent.][66]

Barry Commoner finds solar energy to be advantageous compared with other more exotic technologies not only because of the capital drain of the exotic technologies, such as fusion, but also because of "thermodynamic overkill". For instance, he noted the absurdity of a fusion reactor used to boil water for steam to drive a turbine where the heat source operates at 100,000 degrees, converted through the turbines into electricity for electric hot-water heating to raise the temperature of water by tens of degrees.[67]

The reason alternative forms of energy such as solar energy would be part of a democratic energy policy is due, then, not only to the relief promised to capital costs, but also to the thermodynamic efficiencies that accompany the use of these techonolgies. That is why Commoner states that most long-range studies of energy conclude that "midway throgh the twenty-first century, or even somewhat sooner, we could obtain all, or nearly all, of our energy from the sun."[68]

A further note about the value of solar power in terms

of capital costs is also found in Commoner:

> In every conventional energy source, the productivity of capital---the energy produced per value of capital invested-has fallen sharply with increased production [the law of diminishing returns]. In contrast, the capital of solar energy can be continuously expanded with no decrease in capital productivitiy because the production of one unit of solar energy in no way makes it more difficult or costly to produce the next... What is more, as solar energy replaces conventional sources, the latter can be gradually phased out, through reducing the most intense demand for capital in United States industry.[69]

The development of solar-energy technology within a democratic-planning framework is particularly significant for this study because of the attempts of utilities to constrain it within the confines of electrified technologies. For instance, the Energy Research and Development Agency decided in 1975 that electrified solar technologies were the only ones capable of making a long-term contribution to the United States energy picture.

Amory Lovin's reaction to this is to point out that ERDA was insisting that "92% of U.S. end uses must conform to the supply patterns appropriate to the other 8%."[70] In other words, the utility solar energy perspective is narrowed by its desire to promote its own development within confines as a source of electrical-generation, which would serve to exacerbate the thermodynamic inefficiencies.

Solar energy techology leads us to a discussion of how a democratic energy policy would focus on end uses of energy. Thus, perhaps the most fruitful area for the introduction of

a democratic energy policy concerns the assessment of end uses of energy. Here Barry Commoner provides some figures illustrative of the inefficiencies of wasteful energy sources:

> About 28% of the national energy budget is used for low-temperature tasks such as space heat, water heating, cooking, air conditioning, and refrigeration; on an overall national basis, their estimated Second Law efficiencies range between 3 and 6%.[71]

As noted above, a major source of the inefficiency here is that these tasks often are coupled to electrical energies, which means that a fuel is being burned to produce steam to generate electricity, then transported over great distances--with considerable loss over the distance--and then used for heating and cooling.

It is in this last phase that the greatest inefficiencies arise--with the use of electricity for tasks such as heating water and space heating. What is more, the major competing energy source for these tasks, natural gas, is controlled for the most part by the same utility companies selling electricity and consequently is priced in such a way as to be uncompetitive with electricity.

Commoner uses the petrochemical industry as an example of the inefficiencies of industrial uses of energy. Consider these illustrations of the significance of the petrochemical industry in terms of energy use: by 1971, the industry consumed 605 million barrels of crude oil as fuel, and 480 million barrels as raw material. Also, it used about 28% of all of the fuel used by industry as a whole--which meant that

it consumed about 9% of the total national energy budget.[72]

The problem with this large energy use is that--compared with other sectors of manufacturing, petroleum refining, and the chemical industry, which together constitute the petrochemical industry--it yield remarkablys little economic value, measured by value-added relative to the amounts of fuel and capital they use and the employment opportunities they generate.[73] This means that the petrochemical industry rates very low in maximizing productive output gained from the investment of energy and capital and the enhancement of employment opportunities.

As noted above, one of the more significant consumers of energy is the nuclear fuel cycle itself. If we consider the amount of electricity used for uranium enrichment and the relatively low efficiency ratings of nuclear plants, nuclear power's economic benefit becomes questionable. Likewise, a technology also on the increase in the 1970's as a peak-load generating source was the pump-storage hydroelectric plant, which uses 30% more energy than it produces. What this suggests is that the electric-utility industry itself could benefit from more public involvement in energy policy in matching technology with end uses of energy.

These are some of the substantive policies which would be found in a democratic energy policy. Although this brief discussion of policies is in no way inclusive, it does point in the direction of a planning process which challenges the

predominance of the market as the most equitable framework for resource distribution.

In order to elaborate upon the replacement for the market, we now shift our discussion to the framework for deomcratic planning. In the voluminous literature on energy policy, recommended reforms range from the revival of market conditions to the institutionalization of a nuclear priesthood; from small-scale solar collector technology to solar satellites. Building upon the findings here on the value of citizen participation in policy formulation and implementation, the discussion of recommendations revolves around those measures which open up citizen access to the policy process--and thereby removes issues such as the determination of demand and technological development from the utilities' exclusive domain.

REGULATION

One author concerned with the increase in citizen participation in energy policy in the 1970's focuses upon the responsiveness of public utility commissions, and concludes that they were not "captured" by the utilities or their largest users.[69] While the regulatory commissions provided important access to information in order for public interest groups to examine corporate plans, their record in actually effecting controls on utilities is not laudable. Overall, public-utility commissions were ineffective in compelling utilities to engage in load management and to adopt renewable-

resource generation strategies and rate restructuring. All of the aspects of utility planning that are left significantly untouched by rate regulation falls beyond the purview of public service commissions.

In 1985, New York State Public Service Commissioner Rosemary Pooler testified before the Assembly Subcommittee on Public Power that the key to promoting public planning of the electrical-system is removing incentives to pursue bad policies--namely by reforming rate-base regulation.[75] Pooler argued for the replacement of rate-base regulation with public least-cost planning, which ultimately would put "more money in non-utility sectors of the economy and will allow New York to once again become a center of economic productivitiy and innovation."[76] Pooler also advocated a public takeover of the investor-owned utilities--conducted by the Power Authority--as a means to establish least-cost planning. Since one of the previous chapter's conclusions is that the Power Authority's bond financing removes it from effective political accountability, one of the central concerns here will be to investigate how public agencies in general could be made to be more effective in the establishment of democratic planning.

A note on the usefulness of public service commissions is in order. In addition to the aforementioned access to utility information secured by the presence of regulatory commissions, we observed how the public demand for reliability pressured the PSC in New York to play a more active role in encouraging

utilities to invest in strengthening the electrical grid. While the utilities' forays into utilising 765 kv transmission still are questionable from a public-safety perspective, the presence of a statewide grid has made power pooling possible--which could enable regional planning to become a reality. Before the creation of energy offices in various states, some of the more progressive measures in energy policy were advocated by public service commissions--such as load management, lifeline rates, etc. In a word, the type of checks provided by public service commissions are necessary, but not sufficient to establish democratic energy planning.

CITIZEN UTILITY BOARDS

Citizen utility boards are a relatively recent reform advocated within the citizen-participation movement as a solution to the loss of community autonomy vis-a-vis utilities. While they have value as mechanisms in getting more information from the utilities to be made public--and also as encouragement for citizen involvement in energy policymaking, they are unlikely to promote far-reaching reforms because they do not challenge the utility industry's rate structure, the private ownership of energy resources, or the logic of generating electricity for profit.

Like regulation, the citizen-utility boards are an innovation which has opened the door for greater involvement of publics and policymaking. However, they are insufficient on their own as effective countervailing powers to the

electric utilities, because they are limited both by the amount of information provided by utilities and by the parochialism of local interest.

At the same time, it is essential to recognize the potential of a community-based energy policy for the mobilization of publics, as individuals are moved to defend the values they think are important to maintain. Within community public-utility districts, the boards of directors would have to be elected. The WPPSS experience has discredited the public-utility districts in the eyes of many; but, as discussed in the opening of this chapter, the planning occurred at levels above that of public-utility districts. Furthermore, the example of Seattle's public-utility district's opting out of the WPPSS project indicates that there is promise for communities to determine their own energy needs; and that the failure of WPPSS was due to the lack of public controls over the electric utilities.

Of course, the public-utility districts of the Tennessee Valley Authority system and of the rural cooperatives are not on their own sufficient to serve as a check on the electric utilities when load forecasting is centralized. Obviously, the key here is to develop a public load-forecasting capacity sensitive to community needs, as well as to regional and national development plans.

The development of PSC's forecasting capability before 1979, and that of the State Energy Office after 1979,

demonstrate that with help from public interest groups the public sector is capable of assessing energy demand and of forecasting for future demand. However, appointed regulatory bodies like the PSC and the State Energy Office are subject to the vagaries of gubernatorial appointments and are vulnerable to capture by the utility industry itself.

Consequently, the development of a load-forecasting capacity centralized in a single state agency not only remains vulnerable to funding cuts and to other political pressure, but also fails to provide effective community involvement in decision-making on the determination of demand and strategies to meet that demand. The democratic load-forecasting recommended here, then, invites communities to engage in genuine debate over questions of energy need and of how those needs can be met.

SCALE AND DEMOCRATIC PLANNING

If franchise licenses for water power are considered public grants of resource use as a means to providing services, the scale of community resource-planning can be aligned with the service area defined by franchises. Regional development planning requires that the region have an energy resource base--whether it be water power, wind power, solar, geothermal, biomass, fossil fuel, or nuclear. Thus, it is unnecessary to start from scratch in developing regional plans because existing utility service areas already encompass a great deal of the generating capacity for themselves. In

those instances where a utility service area is to a large extent dependent upon energy from outside its service area, the continuation of this policy often prevents a true accounting of costs and benefits. On the other hand, unusually rich resources like Niagara Falls, the Columbia River, or the Tennessee River should not belong exclusively to the contiguous service territories, but would be considered as the base-load generation for the entire region's development plans.

At the same time, any regional or community-based power planning system would require implementation of national economic planning to enforce the sharing of resources between regions. Thus, scale is an issue not only in terms of economics, but especially in regard to the politics of planning. The politics of scale seeks a match between public involvement in decision-making and a true assessment of the risks and benefits coincident with the decision-making.

Benjamin Barber offers a number of recommendations to move us in the direction of "strong" (participatory) democracy. His position on the scale issue is to call for the programmatic encouragement of participation at both the local and national levels. In this sense, his first recommendation is a "national system of neighborhood assemblies."[77] The neighborhood assemblies would utilize telecommunication technology to provide for information access to facilitate national referendum and initiative activities. Like Thomas

Jefferson's vision of American democracy--which advocated strong local governments in wards and, at the same time, disciplined national political parties--Barber emphasizes the interconnections between participation in local public spheres and the formulation of national policy. This is very similar to what Rexford Tugwell calls the ecological view, which recognizes "diversity within unity."[78] This ecological view, in Tugwell's words, "suggests a general determination of policy with local execution",[79] where there is central coordination but decentralized control of operations. The decentralization of control of operations is as important as the centralization of authority for the formulation of the plan because "creativeness. . . depends on localized initiative."[80]

Tugwell's list of requirements for planning includes a development plan (with an official map of the plan); a planning agency to put the plan and map together; technicians who "are that and nothing more",[81] and the submission of plans for their own development from every operating department of the government. With specific regard to public corporations, Tugwell states:

> ...because it is self-financing, and does not make demands on revenue from general taxation, it ought not to demand exemption from the central planning process. That the expansion of power or water facilities, which are especially convenient for this kind of organization, ought to be coordinate with other developments is axiomatic. Besides, the revenues of such facilities are a kind of sales tax; if they are excessive they may jeopardize the sources of all revenue.[82]

While this statement clearly indicates his view toward public corporations, he goes further in demonstrating how planning is systemic by arguing that the same principle applies to private enterprise because "if they fail, government also fails."[83] He elaborates further on this principle of planning-agency operation:

> The agency, looking toward the future, and having the purpose of enhancing the well-being of the whole, cannot exempt itself from interest in, and from giving advice about, any social activity of importance which makes demands on the labor force, the technical skills, or the natural resources of the society, or which has the power to increase or diminish social well-being.[84]

Tugwell and Banfield's conclusions on the TVA were connected intimately to their critique of grassroots ideology. They maintained that in order for TVA to realize democratic planning, government power would have to be centralized before it could be decentralized. The centralization would make government power superior to interest groups and would make government policy more visible. Stronger administrators devoted to the national interest would be required, to advance a TVA vision of the national interest. Finally, the transformation of the mass into publics "which are capable of exercising a stable and responsible control of government" would provide the checks on public policy necessary to maintain conformity between the visions of the government and the public.

The agreement between Tugwell and Barber on another key point illustrates the concern of democratic planning advocates

for maintaining mechanisms of checks upon planning agencies. Tugwell emphasizes that this argument does not imply either the necessity or desirability of substituting public for private enterprise.[85] He sees the planning agency's role not as substituting itself as as decision-maker, but as improving the decisions of representative decision-making bodies.[86] In a similar vein, Barber notes that "the prudent democrat reforms by adding participatory ingredients to the constitutional formula, not by removing representative ingredients."[87] Here Cohen and Rogers argue that progressive movements need to recognize the importance of developing strategy both to maintain access to existing representative structures--in their example, the Democratic Party--and to provide an alternative as a rallying point for the different constituencies the Party may be capable of reaching.[88]

Gar Alperovitz builds his case for a pluralist commonwealth in contrast to state socialism, which errs in its centralization and because it "largely precludes maintenace of an underlying network of local power groupings rooted in control of independent resources."[89] Centralization not only makes accountability more difficult to achieve; but it also removes from citizens' reach opportunities to participate in debates over the values of planning and to engage in making public-policy decisions. In this sense, planning is meant to bridge the gap between the articulation of a national vision

and the creative application of that vision to local circumstances.

Alperovitz's critique of state-socialist centralization also included its tendency to reduce "individual and social responsibility, and thereby destroys the basis both for freedom and for a practice and ethic of voluntary cooperation; to the extent decision-making is centralized to achieve the planned allocations of resources, alienation appears to increase."[90] Consequently, he looks to other alternatives for decentralization--among them worker self-management, common-wealth institutions, and local councils. For Alperovitz, worker self-management decentralizes decision-making, but does so too narrowly to worker-managers making decisions within a market framework. Instead, he emphasizes "workers' control", which "should be conceived in the broader context of, and subordinate to, the entire community."[91]

The guild socialism advocated by G.D.H. Cole was to be arranged in much the same way as Alperovitz's suggestion, where democracy in all institutions would be organized on a functional basis.[92] In Cole's words:

> In a democratic community, it is essential that the principle of self-government should apply to the affairs of every one of the associations arising out of either of these forms [trade unionism or cooperation] of common purpose.[93]

Due to his desire for the expansion of self-government, Cole also warns of the necessity of avoiding centralization.[94] And through this, perhaps the most

interesting solution offered by Cole's guild socialism is its promise to confront the lack of productivity and poor workmanship. He states:

> If the Guilds are to revive craftmanship and pleasure in work well done--if they are to produce quality as well as quantity, and to be ever keen to devise new methods and utilize every fresh discovery of science without loss of tradition; if they are to breed free men capable of being good citizens both in industry and in every aspect of communal life; if they are to keep alive the motive of free service--they must at all costs shun centralization.[95]

Applying this vision of the costs of centralizing decision-making power over work life--in what Thorstein Veblen's The Instinct of Workmanship calls the Machine Age--to centralized energy technology appears to explain the large cost overruns for nuclear plants, environmental threats, the withholding of alternative technologies, and shoddy workmanship. Cole offers as the solution the reorganization of society "to afford the greatest possible opportunity for individual and collective self-expression to all its members."[96]

Worker democracy holds promise to include utility employees in technology-adoption decisions. In this sense, the encouragement of worker democracy well could lead to reconsideration of those electrical-generation sources that are damaging to the environment. However, a danger of encouraging worker democracy as the sole reform would be the possibility that worker boards of directors would have the same incentives to exaggerate electrical demand as a means of

expanding employment at the expense of consumers. But the benefits of worker democracy lie in the sense of increasing worker responsibility for decisions made about their communities' economy, and therefore about their lives. The lack of democracy has considerable consequences for the quality of political life in the United States.

A major cause for the poverty of political life in the United States is the lack of opportunity for citizens to be involved in meaningful decision-making processes which cultivate their abilities to assess information, to set priorities, to criticize plans coming from centralized authorities, and thus to become self-governing individuals. Individuals in mass society on the receiving end of information from centralized authorities coming through mass media remain in an arrested state of development, lacking political maturity to take responsibility for the consequences of their own decisions and/or lack of interest in the political sphere.

Worker democracy thus holds the promise for educating citizens in decision-making skills in the realm of activity which absorbs most of their adult waking lives. Worker democracy is advocated as a reform to cultivate a more active democratic citizenry because it is hoped there will be a spillover between working life and other social activity, whereby the efficacy gained from participating in decision-making at the workplace will lead to a desire on the part of

citizens to have a greater decision-making role in various other institutions.[97]

Consequently, if the arguments of worker democracy theorists are correct, worker councils would not be able to monopolize energy policy decision-making on their own because a more democratic citizenry would seek avenues to influence the policy process not only as workers but as consumers, as community members, and as individuals concerned with the environment. In other words, citizens would be cognizant of their own levels of self-interest. In this regard, the success of worker democracy would be measured by the extent of this spillover effect demonstrated by the rise of community organizations and of consumer and environmental groups to act as sources of countervailing power to worker councils.

Building a democratic planning base also hinges upon facilitating public involvement in investment decision-making. Replacing bond-market financing with bond referenda would allow elections to be located in the locales where generation and transmission costs are to be absorbed. The creation of public-utility districts would provide the capacity for communities to perform cost-benefit analyses of competing projects. Public research-and-development expenditures on the enhancement of native energy resources would help to ensure that these resources had the most efficient development. Publicly elected district boards would have access to information from industry, from large residential contractors,

and from commercial sector customers--not only on aggregate forecasted demand, but also on end-use efficiencies of the energy required by these customers. The guiding principle behind placing these responsibilities on publicly elected boards is to maintain decision-making about the investment of public resources in a framework accountable to community and regionally based publics. At the same time, it is necessary to utilize some of the mechanisms discussed above for the development of a national energy policy vision to serve as a guide for the regional and community plans.

Given worker democracy's possible disadvantages, and some of the pitfalls attached to democratic planning, a brief reminder of the dangers of corporate planning is in order at this time.

In the interest of expanding generation capacity with capital-intensive technology in order to increase demand for electricity--and, thereby, profits--the electric utility industry in the United States made a commitment to nuclear power as a major source of generation. Accompanying the use of nuclear power plants for electric generation was a dramatic increase in mining, milling, enrichment, and fissioning of uranium, otherwise known as the nuclear fuel cycle. The increased exploitation of uranium at every stage of the cycle has aggravated worker health hazards due to exposure to radioactive material.

In addition to workers in immediate proximity to the

radioactive material, people in communities near mines, mills, and nuclear plants have had greater exposure to low-level radiation. Grand Junction, Colorado is a community which serves as a chilling example of the dangers of the increased utilization of uranium, in the absence of sufficient enforcement of protection against health hazards.[98] The high rates of leukemia and symptoms of radiation sickness that developed in Grand Junction, after mill tailings from the uranium mill were used as landfill, demonstrate that danger.

Significantly, the Atomic Energy Commission's refusal to accept responsibility for the misuse of these mill tailings indicates the ineffectiveness of regulatory bodies to protect against the dangers posed by the nuclear fuel cycle. The Karen Silkwood case at the Kerr-McGee plant in Oklahoma suggests that uranium enrichment possibly is as hazardous to the health of the workers or the communities where enrichment plants are located as in uranium mill towns.[99] And, of course, the accidents at the Browns Ferry plant in Alabama, at Three Mile Island, Chernobyl, and the operations in the Savannah River Nuclear Weapons Complex demonstrate that the operation of nuclear power plants poses risks of radiation exposure to the public from accidents.

In their efforts to impose nuclear technology and the nuclear fuel cycle into the energy system of the United States, utilities and other segments of the industry have moved to constrain citizen input into energy policymaking.

The reason for the addition of this practice into corporate planning is that citizen awareness of these dangers and involvement in public policy would serve to constrain the utilities. The threats to citizen involvement and liberties are several--including restrictions of speech of nuclear power opponents, restrictions of the press in reporting on failures in various parts of the nuclear fuel cycle, narrowing of mechanisms to petition government on public concerns about the technologies, and restrictions on freedom of the industry's critics to assemble to demonstrate their views to the industry, to government, and to the public as a whole.[100]

The recent Nuclear Regulatory Commission ruling that communities must cooperate in emergency-evacuation programs is one example among many of the sacrifices of community autonomy in the interests of perpetuating the nuclear industry. As nuclear power is called upon to supply an even greater share of the generating capacity of the United States, threats to these liberties, the restriction of information to allow the operations of the industry to continue, and the narrowing of the ability of citizens to question the industry and related government bodies all will be accelerated.[101]

Finally, the fact that the electric-utility industry is the most capital-intensive industry alone points to the danger of concentrated control over policy because of the drain upon the capital pool available for all of industry. With the

costs of constructing nuclear plants alone running over by hundreds of percent, with corresponding financing costs and increased interest rates, the economy cannot afford to allow electric-utility executives--inadequately checked by regulatory commissions--to make demands upon capital to the degree attempted in the 1970's.

When it is recognized that the capital resources invested in non-renewable-resource technology will be lost when those resources are exhausted, and therefore the capital needed for a shift to a renewable-source energy system will have to be created anew, the true costs of corporatist energy planning emerge in sharp relief. As Amory Lovins describes the decision facing the United States at the end of the century, the "hard" and "soft" energy paths are mutually exclusive.[102] The further we go on the capital-intensive path, the more sacrifices will have to be made to acquire the capital to shift to a more democratic, nonpolluting, renewable energy system.

PUBLICS, TECHNOLOGY, AND POLICY

One illustration of the way in which publics are important for the defining of values for public policy is discussed by David Dickson and David Noble, regarding the 1970's shift in technology policy. The goal of this shift was to create a corporate technology policy emphasizing exchange value.

Central to the corporate strategy was the redefiniton of "rationalization" with regard to technology policy:

> The rationality of federal policy is not measured by the yardstick of democraticaaly determined social objectives, but by the extent to which it permits the unrestricted operation of market forces.[103]

The shift in policy came in effect as a counteroffensive against "pressures for increased public control of research and the pace and direction of technological change."[104] This shift was not limited to that particular area, but was part of a larger program to depoliticize public policy in general, according to Dickson and Noble:

> Not accountable to democratic or judicial norms, state action when cloaked in the mantle of science may still be justified as "rational," while consequences of the value-neutral character of scientific enterprise effectively sanitizes the policy-formation process, justifying its removal from the control of mass democratic institutions. What is at stake in the current struggle over science and technology policy is not merely the technocratic redefinition of reason, but the redefiniton of democracy itself.[105]

The corporatist view that we no longer can tolerate democracy has led to various calls to restructure the United States Government. A few of these proposals include greater presidential power; strengthened political parties in Congress; a rationalized (one-term) presidential nominating process; less government support for mass education; and an elite civil service accountable only to the President.[106]

PUBLICS REVISITED

In opposition to the publics--which are the backbone of democracy--are the corporatist-organized publics, which are on the rise with the growth of the mass in industrial nations.

In the United States, commercial advertising and public education serve as the instruments for the creation of corporatist-organized publics which do not demonstrate the capacity to advise and to criticize the governing agencies producing the advertising and education.

We find throughout the literature that publics and free associations are necessary for a modern democratic society to provide the "form within which a politics of real issues is enacted."[107] This is echoed by Gunnar Myrdal in Beyond the Welfare State, where he proposes that the objective of planning should be to simplify policy coordination, which thus would allow more direct citizen intervention into the policy process. The need for greater citizen participation in the policy process in order to keep planning democratic is a dominant theme in Myrdal's work.[108]

Encouragement of citizen participation both strengthens public and private organizations at the regional and local levels, and serves to legitimize government intervention--because, in Myrdal's words, people accept regulation more willingly "when they themselves participate in making and managing the regulations that govern them."[109]

Myrdal stresses as well that a vacuum of citizen intervention results in the strengthening of corporate planning. With the growth of the Broker State during the New Deal and the Second World War, the United States abandoned the free market--with the result that "all demand and supply

curves are then in a sense 'political'."[110]

Consequently, a lack of democratic planning would not mean the return to the free market or the nonexistence of planning; but rather the development of private interest, oligarchy, general citizen apathy, and greater advantages for big business and those "of the higher income brackets."[111]

THE PROMISE

The key to democratic planning is the cultivation of publics which can engage in debate over the priorities for energy use within a democratic framework, and thereby render unnecessary corporatist planning which fails to consider the social costs attending a policy of economic growth at any cost.

An energy policy determined by publics offers the potential at best to get rid of the nuclear fuel cycle, and at worst to make the various stages of that cycle more safe. Uncoupling the energy system from the nuclear fuel cycle also offers the promise of undermining the proliferation of nuclear weaponry by making nuclear-reactor technology more expensive compared to other energy forms--when government subsidies to the industry are cut--consequently decreasing the likelihood that developing nations would be able to justify the acquisition of nuclear-reactor technology, often done for the purpose of developing nuclear weaponry. In simpler terms, the less radioactive waste generated, the less fissionable material available to be converted into nuclear weapons.

As noted above, the shift to an energy system which utilizes less-polluting, renewable resources offers the benefit of promoting employment in the fields of conservation technology, construction, and agriculture. Since the presence of public-utility districts encourages community-development planning and the stimulation of smaller decentralized businesses, democratic planning could help provide the conditions for more equitable economic development. Finally--as Bowles and Gintis have suggested--democracy as a social system is expansive and reproduces itself; which means that once democratic planning is allowed to take hold in an area such as energy policy, it will spill over into others.

With the predominance of corporate planning at this juncture, the democratic man envisioned by Enlightenment theorists appears an unlikely creature. But as Karl Polanyi observes in The Great Transformation, the idea of economic man is an artifice, an ideal.[112] Whether or not democratic man does emerge will be determined either by the energy invested in restructuring institutions to make them more responsive to public influence, or by the ability of corporatist planners to forestall the crises threatening their control over the economy and by their ability to develop an ideology allowing the public to remain idle in the decline of its political life.

Chapter Six - ENDNOTES

[1] David Myrha, Whoops!/Washington Public Power System Nuclear Plants, Jefferson, N.C.: McFarland and Company, 1984, p. IX.

[2] Ibid., pp. 48-9; and, similarly, D. Victor Anderson, Illusions of Power, New York: Praeger, 1975, p. 119. According to Myrha, the Participants' Review Committee resisted four attempts to open up their meetings between 1979 and 1981.

[3] From Myhra, p. 50.

[4] Ibid., p. 91.

[5] Ibid., p. 125.

[6] Ibid., p. 152.

[7] Ibid., pp. 93-4.

[8] "Massena Feels Sting of Utility's Strategy", Watertown Daily Times, October 2, 1979, p. 24.

[9] Ibid.

[10] "Massena Power Conflict Issues Need 'Hard Look'", Watertown Daily Times, October 6, 1979, p. 3. An additional Niagara Mohawk strategy to address the possibility of a municipal system organized by Massena was to refuse to deliver the power at a voltage which the town's distribution system could handle. Niagara Mohawk argued in November 1979 that Massena would have to pay more than $3 million to construct a reliable transformer system for the connection between Niagara Mohawk's lines and the town's distribution lines.

[11] "Agency Rules Against Massena", Watertown Daily Times, August 1, 1979, p. 24.

[12] "US Hints PASNY Must Serve Municipal Systems", Watertown Daily Times, August 2, 1979, p. 24.

[13] "Massena Raps Pace of Judge", Watertown Daily Times, October 26, 1979, p. 9.

[14] Ibid.

[15] "The Future of the Power Authority of the State of New York", Volume 1, May 1984--Report from Assemblyman Joseph Ferris, Chairman, Assembly Joint Subcommittee on Public Power, p. 32, Exhibit 1.

[16] Ibid., p. 25.

[17] Ibid., p. 4.

[18] Ibid., p. 4.

[19] Power Authority of the State of New York, Allocation of Hydroelectric Power, July 1981, p. 7.

[20] Barry Commoner, The Poverty of Power, New York: Knopf, 1976, p. 63. A member of the State Energy Office staff commented that the municipal utilities in New York State are some of the worst offenders in terms of energy waste. Because of the low rates, they have higher-than-average numbers of households with electric heat and have not demonstrated a commitment toward conservation.

[21] E. F. Schumacher, Small is Beautiful, New York: Harper and Row, 1973.

[22] George McRobie, Small is Possible, New York: Harper and Row, 1981, p. 166.

[23] The Poverty Of Power, pp. 28-29.

[24] Amory B. Lovins, Soft Energy Paths, New York: Harper and Row, 1977, pp. 68-72.

[25] Seymour Martin Lipset, Political Man, Baltimore: Johns Hopkins, 1981; Samuel Huntington, Michel Crozier, and Joji Watanuki, The Crisis of Democracy, New York: New York University Press, 1975.

[26] Bernard Berelson, Paul Lazarsfeld, and William McPhee, "Democratic Practice and Democratic Theory", from Voting, Chicago: University of Chicago Press, 1954.

[27] The Crisis of Democracy, p. 115.

[28] Jack Hayward and Michael Watson, eds., Planning, Politics and Public Policy, London: Cambridge University Press, 1975, p. 447.

[29] Ibid., pp. 289-290.

[30] Ibid., p. 456.

[31] Ibid., p. 459. See also p. 447.

[32] Ibid., p. 482.

[33] Ibid.

[34] Samuel Bowles and Herbert Gintis, Democracy and Capitalism, New York: Basic Books, 1976, p. 5.

[35] See Carol Pateman, Participation and Democratic Theory, New York: Cambridge University Press, 1970; and L. S. Stavrianos, The Promise of the Coming Dark Age, San Francisco: W. H. Freeman, 1976.

[36] Andrew Shonfield, Modern Capitalism, London: Oxford University Press, 1965, p. 227.

[37] John Kenneth Galbraith, American Capitalism, Boston: Houghton Mifflin, 1956, p. 111-112.

[38] Ibid., p. 137.

[39] Hans Gerth and C. Wright Mills, Character and Social Structure, New York: Harcourt, Brace and World, 1953, p. 435.

[40] Bowles and Gintis, p. 11.

[41] Karl Mannheim, Freedom, Power and Democratic Planning, New York: Oxford University Press, 1950, p. 29.

[42] Harry Boyte, The backyard revolution, Philadelphia: Temple University Press, 1980, pp. 9, 24-25.

[43] Lawrence Goodwyn, The Populist Moment, New York: Oxford University Press, 1978, p. 33.

[44] Gerth and Mills, Character and Social Structure, p. 435; from Hans Speier, Social Order and the Risks of War, New York: Stewart, 1952, p. 323.

[45] John Dewey, The Public and Its Problems, New York: Henry Holt & Co., 1927, p. 39.

[46] Ibid., p. 27. See R. Jeffrey Lustig, Corporate Liberalism, Berkeley: University of California Press, 1982, pp. 263-264, for a similar view.

[47] Ibid., p. 39.

[48] Ibid., p. 77.

[49] Character and Social Structure, p. 11.

[50] Ibid., p. 436.

[51] Barry M. Casper and Paul David Wellstone, Powerline, Amherst: University of Massachusetts Press, 1981, pp. 44-45.

[52] Seattle's rejection of the WPPSS plan is described in D. Victor Anderson, Illusions of Power, p. 114.

[53] Interview with Fred Levine, Consumer Protection Board, August 22, 1986.

[54] Amory Lovins, Soft Energy Paths, New York: Harper and Row, 1977; E. F. Schumacher, Small is Beautiful, New York: Harper and Row, 1973; Hazel Henderson, Creating Alternative Futures, New York: Berkeley Publishing Co., 1978; Richard Grossman and Gail Daneker, Energy, Jobs and the Economy, Boston: Alyson Publications, 1979.

[55] Barry Commoner, The Politics of Energy, New York: Knopf, 1979, pp. 78-80.

[56] Small is Beautiful, pp. 124-125.

[57] Commoner's figures here illustrate the dimensions of industry's advantages over residential customers in energy consumption. While under the Carter Energy Plan, residential/commercial customers were called upon to achieve 45% of the projected energy conservation by 1985, they were to receive only 15% of the added energy. Industry was to be responsible for 40% of the conservation, and would receive 74% of the added energy. Politics of Energy, p. 6.

[58] Small is Beautiful, p. 175.

[59] Bonneville Power Administration, Electric Energy Conservation Study, Portland, 1976. Prepared by Skidmore, Owings & Merrill.

[60] Amory Lovins, Testimony before a Joint Hearing of the Select Committee on Small Business and the Committee on Interior and Insular Affairs, United States Senate, December 9, 1976.

[61] Skip Laitner/Critical Mass, The Impact of Solar Energy and Conservation Technologies on Employment, Washington, D.C.: May, 1976.

[62] Federal Energy Administration, Conservation Investment as a Gas Utility Supply Option, Washington, D.C.: 1976.

[63] Grossman and Daneker, p. 53.

[64] The costs from the production of "disposable" aluminum cans, and some recommendations for advancing recycling and conservation are found in Anna Gyorgy, et al., No Nukes, Boston: South End Press, 1979, pp. 231, 240-241.

[65] The Poverty of Power, pp. 132-136.

[66] Ray Reece, The Sun Betrayed, Boston: South End Press, 1979, pp. 206-7.

[67] The Poverty of Power, p. 131.

[68] Ibid., p. 142.

[69] Ibid., p. 143.

[70] Soft Energy Paths, p. 142.

[71] The Poverty of Power, p. 145.

[72] Ibid., p. 183.

[73] Ibid., p. 189.

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[75] Assembly Subcommittee on Public Power, Testimony by Rosemary Pooler, 1985, p. 16.

[76] Ibid., p. 18.

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[78] Rexford G. Tugwell, The Place of Planning in Society, Puerto Rico Planning Board, Technical Paper 7, San Juan, Puerto Rico, 1954, p. 41.

[79] Ibid.

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[89] Staughton Lynd and Gar Alperovitz, Strategy and Program, Boston: Beacon Press, 1973, p. 52.

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[95] Ibid., p. 51.

[96] Ibid., p. 5.

[97] See footnote [35].

[98] H. Peter Metzger, The Atomic Establishment, New York: Simon and Schuster, 1972, pp. 164-192.

[99] See No Nukes, pp. 103-105.

[100] See Jerome Price, The Antinuclear Movement, Boston: G. K. Hall & Co., 1982, pp. 17-20.

[101] See Joseph Camilleri, The State and Nuclear Power, Seattle: University of Washington Press, 1984, pp. 85-86, 128-130.

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[103] Thomas Ferguson and Joel Rogers, eds., The Hidden Election, New York: Pantheon, 1981, p. 265.

[104] Ibid.

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[107] C. Wright Mills, Power, Politics and People, New York: Oxford University Press, 1963, p. 37.

[108] Gunnar Myrdal, Beyond the Welfare State, London: Methuen & Co., 1960, pp. 63-64, 67, 69, 72, 76.

[109] Ibid., p. 74.

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[112] Karl Polanyi, The Great Transformation, Boston: Beacon Press, 1944, p. 258.

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