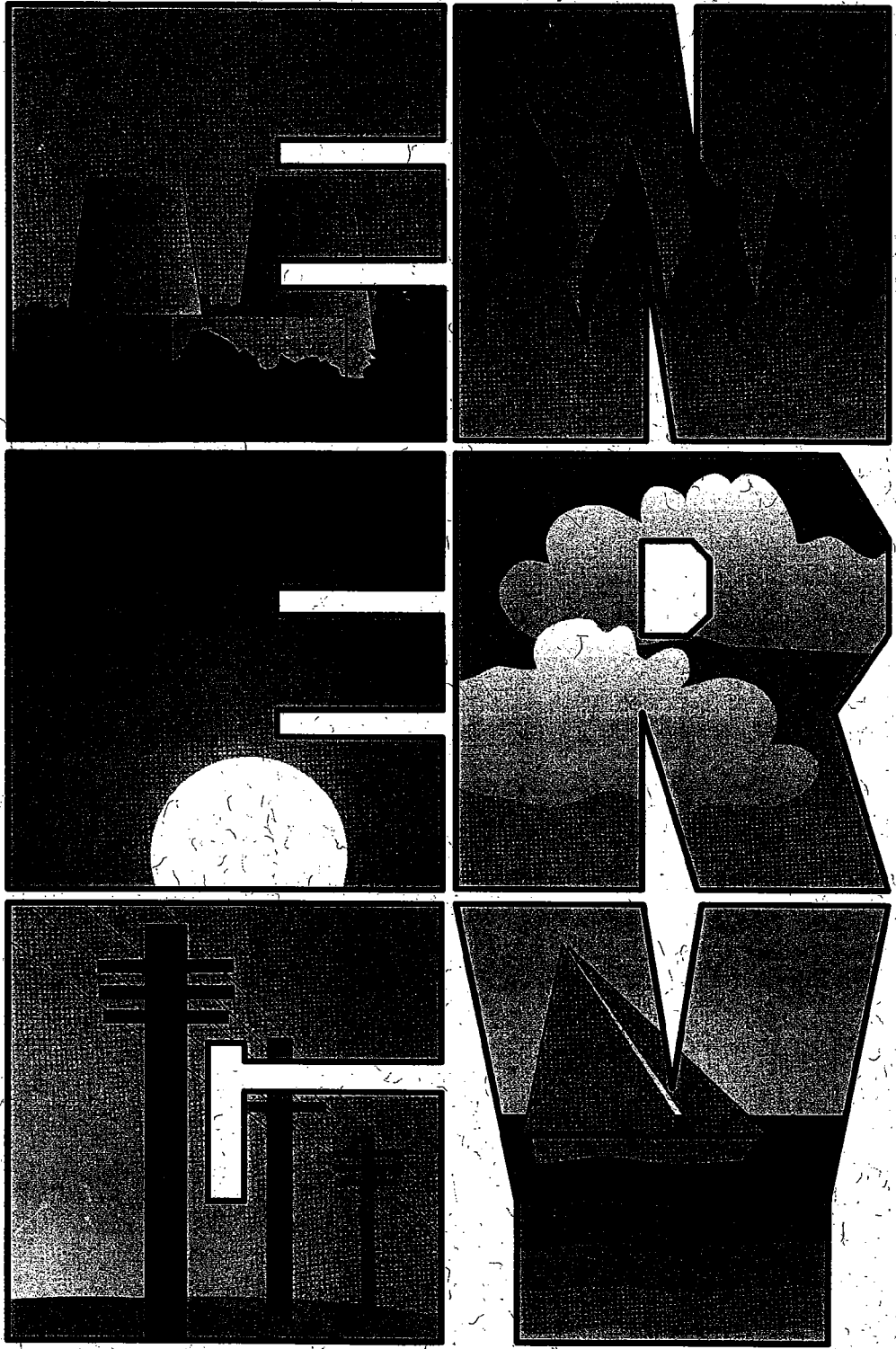


New Jersey



Master Plan

PHASE I REPORT • MARCH 1995

Dear Fellow New Jerseyans:

March 1995



*Christine Todd Whitman  
Governor*



*Herbert H. Tate  
President, Board of  
Public Utilities*

It is with confidence that we present the 1995 New Jersey Energy Master Plan Phase I Report to the residents and business owners in New Jersey. The Phase I Report is a policy document that provides a framework for managing the transition of the State's energy industries from markets guided by the regulation of monopolies to those guided by market-based principles and competition.

The policies contained in this energy planning document promote competition and streamline the regulatory process, while maintaining consumer protection standards to ensure that all ratepayers benefit from increased competition. The Phase I Report is the culmination of extensive public input from industry representatives, consumer groups and environmental advocates. This document, as well as its development process, represent our administration's goals to encourage economic growth; ensure smarter, streamlined, more responsive government; and inspire public participation in the governmental process.

On behalf of the New Jersey Energy Master Plan Committee, we thank the members of the public who generously contributed their time and expertise to help develop the Phase I Report. We encourage your continued guidance during the evolution and implementation of energy policy in New Jersey.

Very truly yours,

Christine Todd Whitman  
Governor

Herbert H. Tate  
President, Board of Public Utilities  
Chairman, New Jersey Energy Master Plan Committee

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# New Jersey Energy Master Plan Committee

**Herbert H. Tate, President**

Board of Public Utilities  
Chairman, Energy Master Plan Committee

**Robert C. Shinn, Jr., Commissioner**

Department of Environmental Protection

**Harriet Derman, Commissioner**

Department of Community Affairs

**Len Fishman, Commissioner**

Department of Health

**William Waldman, Commissioner**

Department of Human Services

**Frank J. Wilson, Commissioner**

Department of Transportation

**Brian W. Clymer, Treasurer**

Department of Treasury

**Frances I. Sundheim, Acting Director**

Division of Ratepayer Advocate

**Also Invited to Participate**

**Lonna R. Hooks, Secretary of State**

Department of State

**Gualberto Medina, Commissioner**

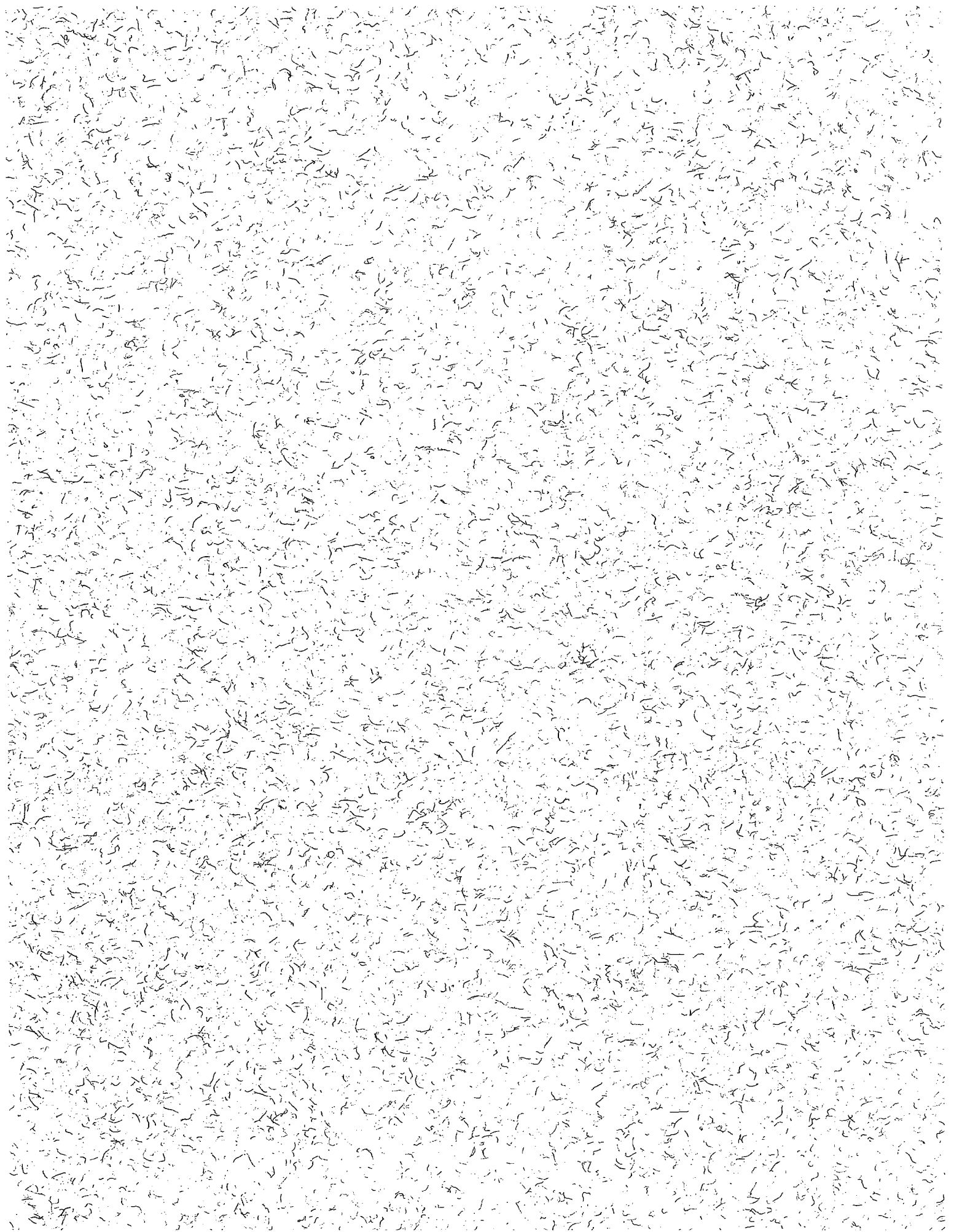
Department of Commerce and Economic Development

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# Vision For The Future

New Jersey's natural gas and electric power markets traditionally have been served by regulated monopolies. More recently market forces, combined with Federal and State actions, have laid the foundation for the development of additional competition in these markets.

Additional competition in New Jersey's energy markets offers the potential to enhance the State's economic development objectives by exerting downward pressures on prices, by creating incentives for energy producers to lower costs and operate more efficiently, and by providing an opportunity for government to streamline the regulatory review process. These benefits should both stimulate economic growth within the State and encourage the State's industries to become more competitive with other industries in the region. The promotion of additional competition in New Jersey's energy markets is, therefore, a major theme of the Energy Master Plan.

The New Jersey Energy Master Plan Phase I Report provides a framework for managing the transition of the State's natural gas and electric power industries from markets guided by the regulation of monopolies to those guided by market-based principles and competition. The Plan enunciates standards which ensure continued consumer protection as New Jersey moves toward more competitive markets. The Plan recommends the adoption of:

1. rate flexibility as a short-term or interim measure which allows utilities to compete in order to retain and attract customers in a changing regulatory environment;
2. alternative regulation as an interim and possibly as a long-term measure which allows market forces to stimulate efficiency, productivity and innovation;
3. significant consumer protection standards to ensure that captive ratepayers do not subsidize competitive activities and to ensure that all ratepayers benefit from the transition to greater competition; and,
4. integrated resource planning and a competitive supply side procurement process as interim measures to streamline the regulatory review process, lower costs to all ratepayers through increased competition, and ensure that the State's environmental and energy conservation goals are met in a competitive marketplace.

Title 48<sup>1</sup>, and the body of the Board of Public Utilities decisions implementing Title 48, establish the existing standards for the regulation of public utilities in New Jersey. The Plan does not recommend the abandonment of those standards. Alternatively, the Plan recommends supplementing them. The proposed alternative regulation legislation is intended to promote efficiency, productivity, innovation and lower costs while maintaining the fundamental ratepayer protections embodied in Title 48 and prior decisions of the Board.

While the Plan recommends actions and certain regulatory reforms which promote additional competition, the Plan recognizes that regulation must continue to ensure:

- continued access to safe, adequate and reliable service at a reasonable cost;
- protection of the public interest;
- meeting environmental and energy efficiency goals;
- system reliability; and
- the financial integrity of utilities which have an obligation to serve the public.

Consistent with the above recommendations and consumer protection standards, it shall be the policy of the State that:

- Where effective competition exists and ongoing regulation becomes unnecessary to provide consumer protections, the State should allow the marketplace to determine the quality and price of service.
- In those markets where competition does not exist but where increased competition could benefit consumers, the State should take actions to facilitate the development of a competitive marketplace, while at the same time recognizing that there might be a need to balance legitimate public interest goals and consumer protections.
- Where competition does not exist or it is determined that consumers are best served by continued regulation, the State should continue to regulate the quality and price of commodities and services.

## PART I

# Energy Goals and Objectives

State energy policy is guided by four primary public policy goals: economic competitiveness, environmental quality, energy security and consumer protection. The New Jersey Energy Master Plan Phase I Report sets forth short-term, interim and long-term strategies for achieving these goals.

## Goals

### Goal 1 Transitional Planning

New Jersey's natural gas and electric power markets have traditionally been dominated by regulated monopolies. State energy policy should guide the transition of the State's natural gas and electric power industries to more competitive markets through interim and long-term strategies and recommendations contained within the Energy Master Plan.

### Goal 2 Promote Competition

State energy policy should promote competition. Greater reliance on competition can:

1. Promote efficiency and foster productivity and innovation which will exert downward pressure on rates for all customers.
2. Encourage New Jersey utilities and energy producers to become more competitive, improve the energy infrastructure and lower prices. This will promote economic development through business attraction, expansion and retention in the State.
3. Position New Jersey's natural gas and electric industries to better compete with other utilities and energy producers in the region.
4. Promote the provision of service at more competitive prices and higher service quality levels for all consumers.

### Goal 3 Consumer Protection

State energy policy should ensure that transitional programs are beneficial to energy consumers and strive to prevent cross-subsidization, both within and among classes of customers. State energy policy should also strive to prevent cross-subsidization between a utility's competitive activities and its regulated activities.

### Goal 4 Regulatory Efficiency

State energy policies should streamline and render more efficient the planning and regulatory review process through the development of integrated resource planning rules. Integrated resource planning creates a central forum for assessing the short-term, intermediate, and long-term costs and benefits to New Jersey's economy and environment from the various resource options.

### Goal 5 Energy Security

State energy policy must ensure continued access to safe, adequate and reliable energy supplies. State policies should promote secure and diverse energy supplies and reliable services to energy users.

### Goal 6 Environmental Quality

The State energy policies should promote the achievement of Federal and State environmental requirements and objectives in the most rational and cost-effective manner and, where possible, provide market-based incentives to achieve these goals.

### Goal 7 State Policy Coordination

State energy policies should be coordinated with the State's economic and environmental policies and objectives through the Economic Master Plan, the Environmental Master Plan and the State Development and Redevelopment Plan. The development of the State's energy policies should include participation by the public.

## Goal 8 Energy Efficiency

State energy policies should promote the efficient production, transmission, distribution, and use of energy.

## Goal 9 Public Health and Safety

State energy decision-making should consider the health and safety of the public.

## Objectives

### Objective 1

Develop an energy planning strategy that amplifies Governor Christine Todd Whitman's economic development goals of attracting and retaining business, creating jobs, enhancing the economic vitality of the State, and ensuring that New Jersey remains competitive with other states in the region.

### Objective 2

Establish a framework for an evolutionary transition toward a more competitive marketplace through the promotion and use of market-based forces. More competition will drive the efficient production and delivery of all forms of energy and improve the quality and choices of service for all energy consumers.

### Objective 3

Manage the transition to a market-based, more competitive environment to ensure that the challenges of the changing nature of the regulatory environment are met to the benefit of all customers. Managing the transition will require consumer protection standards to ensure that transitional programs produce tangible benefits for energy consumers, that strive to prevent cross-subsidization within or among classes of customers, and that consider the impacts on low and fixed-income customers. Managing the transition will require standards to ensure fair competition between utility and nonutility businesses, primarily by ensuring that competitive utility services are not subsidized by regulated services.

### Objective 4

Streamline the regulatory process through the development of rate flexibility, alternative regulation, integrated resource planning, and a competitive supply-side procurement process to allow timely responses to a rapidly changing, more competitive marketplace.

### Objective 5

Develop alternate forms of regulation which promote efficiency, productivity and innovation, and streamline the burdensome and time-consuming process associated with rate-base/rate-of-return regulation.

### Objective 6

Review and study Title 48 to determine whether modifications, amendments or restructuring are necessary for the State's gas and electric utilities to better meet the challenges of the changing marketplace.

### Objective 7

Develop energy policies which promote the achievement of environmental requirements and objectives by pursuing strategies which rely on market-based forces to achieve environmental and energy efficiency goals at the lowest reasonable costs.

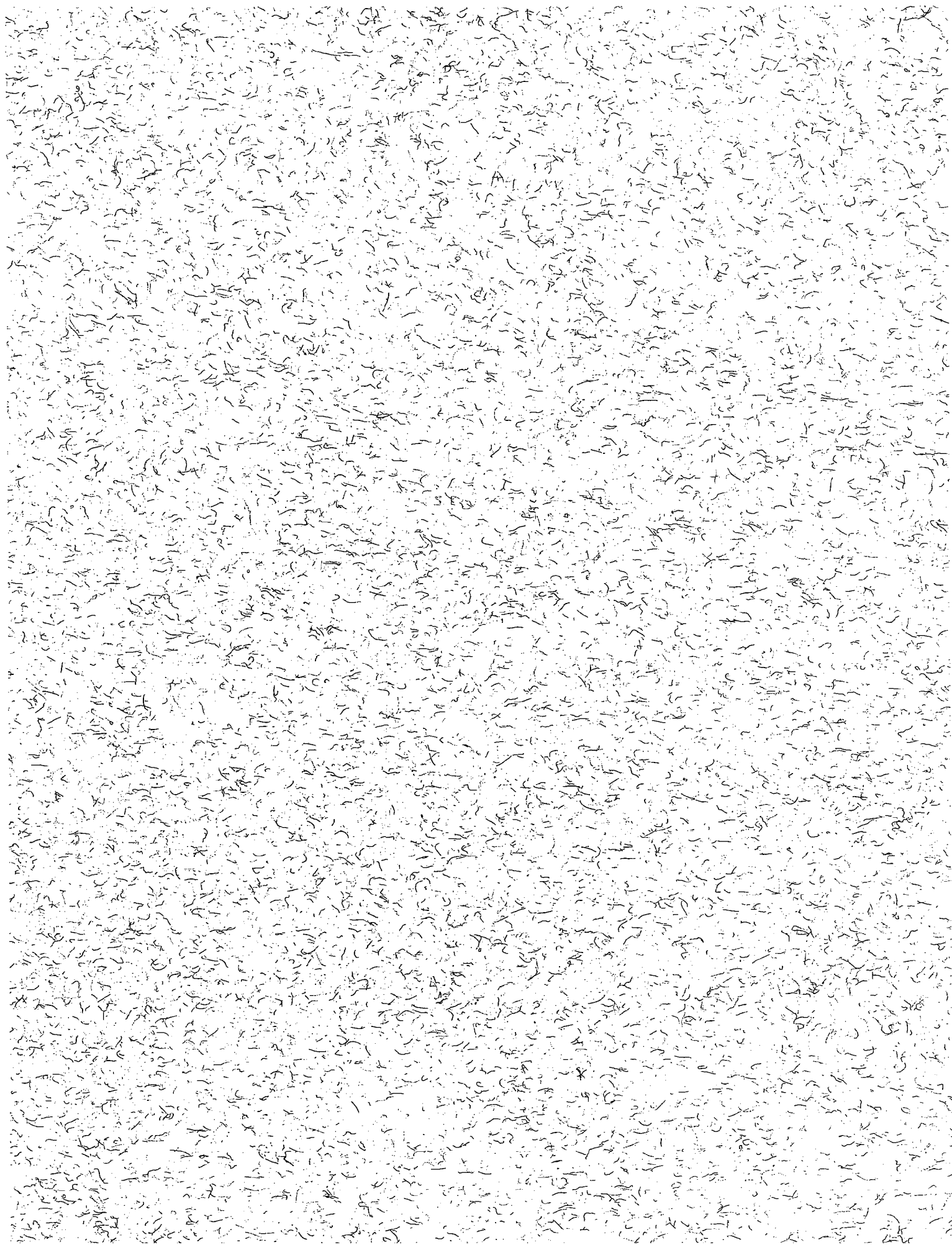
### Objective 8

Ensure that energy decisions include a consideration of both short and long-term environmental and economic impacts.

### Objective 9

Encourage greater participation in the State's energy planning and decision-making process by all interested parties. Encourage negotiated solutions as an alternative to litigation.





## PART II

# Development of New Jersey's Energy Policy

## Reorganization Plan Number 001-1994

On May 5, 1994, Governor Christine Todd Whitman issued Reorganization Plan Number 001-1994<sup>2</sup> to provide for more effective development and implementation of the State's utility, environmental and energy policies. The reorganization plan included the following provisions related to the development of the State's energy policies:

- The Board of Regulatory Commissioners, which was in but not of the Department of Environmental Protection and Energy, was transferred to and constituted as the New Jersey Board of Public Utilities, in but not of the Department of Treasury. The name of the Department of Environmental Protection and Energy was changed to the Department of Environmental Protection.
- The responsibility to act as Chair of the Energy Master Plan Committee was transferred from the Commissioner of the former Department of Environmental Protection and Energy to the President of the Board of Public Utilities.
- The Division of the Ratepayer Advocate was established within the Board of Public Utilities as an independent division, to represent the various classes of ratepayers including the residential, commercial and industrial ratepayers.
- The Director of the Division of the Ratepayer Advocate, appointed by the Governor, enjoys a two-year term, and has been given a permanent seat on the Advisory Council on Energy Planning and Conservation and on the Energy Master Plan Committee in order to provide an opportunity for the Division to play an active role in the development of energy policies.

- The Office of Energy Planning and all of its functions, powers and duties were transferred to the Division of Energy Planning and Conservation in the Board of Public Utilities. The Division of Energy Planning and Conservation is responsible for coordinating the development of the Energy Master Plan.

## The Process

N.J.S.A. 52:27F-14 establishes an Energy Master Plan Committee charged with the adoption of the New Jersey Energy Master Plan. The Energy Master Plan Committee is composed of seven of Governor Christine Todd Whitman's Cabinet members, including the President of the Board of Public Utilities and the Commissioners of the Departments of Environmental Protection, Transportation, Treasury, Community Affairs, Health, and Human Services. Pursuant to Governor Whitman's Reorganization Plan Number 001-1994, the Director of the Division of the Ratepayer Advocate was added to this Committee.

The Division of Energy Planning and Conservation, within the Board of Public Utilities, is coordinating the development of the State's energy policy. The Division met with representatives of the Energy Master Plan Committee, along with the Department of Commerce and Economic Development and the Office of the Secretary of State, to ensure that energy policy recommendations are consistent with the goals and objectives of each department.

Consistent with Governor Whitman's goal of a participatory government, persons representing a wide variety of interests were invited to provide input into the development of energy policy. Two advisory councils, one representing industry and one representing consumers, were formed. Twelve subcommittees were organized representing the interests of residential, commercial and industrial customers, trade groups, electric and gas utilities, energy conservation companies, independent power producers, environmental organizations, fuel suppliers and the financial community. A subcommittee was also formed to evaluate the tax implications of energy policies.

The process commenced with the release of an "Issues Paper" prepared by the representatives of the Energy Master Plan Committee. Each subcommittee submitted a report to the Advisory Council outlining its position on the issues. The Advisory Councils met jointly with representatives of the subcommittees twice to discuss the issues raised in their

reports. The written comments received, and the oral comments provided at the Advisory Council meetings, were considered in the development of this Phase I Report.

## Three Phases of The New Jersey Energy Master Plan

The New Jersey Energy Master Plan is being developed in three phases. This Phase I Report includes a Vision for the Future, plus goals, objectives and a discussion of the key energy policy issues facing New Jersey. For each issue identified, this Report includes either a specific policy recommendation or identification of the need for further study of the issue. The Phase I Report outlines the broad policy objectives to be followed in developing more specific recommendations in Phases II and III.

The Phase II Report will summarize the activities related to the implementation of the recommendations included in the Phase I Report. The State department or agency responsible for implementing each recommendation in the Phase I Report will initiate a proceeding to do so. For those issues that require further study, the respective State departments or agencies will initiate a proceeding to do so. It is anticipated that Phase II will be completed by year-end 1995.

The Phase III Report will include an assessment of energy prices, energy supply and energy use for a variety of energy sources, including energy conservation, renewable sources of energy, coal, natural gas, petroleum, propane, nuclear and electricity. It will also include an assessment of energy use by various sectors of the economy, including residential, commercial, industrial and transportation. The Phase III Report will include an update of the majority of the information included in the 1991 New Jersey Energy Master Plan. The Phase III Report will be developed concurrently with the Phase II Report and is scheduled to be concluded by year-end 1995.

The public will continue to participate in the development of energy policy during Phase II and Phase III of the Energy Master Plan. As in Phase I, interested members of the public will be invited to help guide decision-making on energy policy. Each department implementing a Phase II proceeding will provide an opportunity for public input into its process. Further, the Division of Energy Planning and Conservation will schedule a series of public workshops to assist in the development of the Phase II Report.

## Coordination with the Economic Master Plan, Environmental Master Plan and State Development and Redevelopment Plan

Governor Whitman's Executive Order Number 001-1994<sup>3</sup> established the State's Economic Master Plan Blue Ribbon Commission which charged the Department of Commerce and Economic Development and the Secretary of State with determining the overall economic needs of the State. While not statutorily a part of the Energy Master Plan Committee, these two departments have been invited to participate in the process to ensure that the energy policies adopted in the Energy Master Plan are consistent with the economic development goals of the State.

The Economic Master Plan was presented to Governor Christine Todd Whitman in January 1995. The Department of Environmental Protection is in the process of developing an Environmental Master Plan. The Energy Master Plan Committee worked closely with other State departments to ensure that the energy policies included in the Phase I Report are consistent with the economic and environmental goals of the State and the State Development and Redevelopment Plan.

## PART III:

# Increased Competition in Energy Markets

New Jersey's energy markets are experiencing increased competition. This includes increased competition both among fuels as well as among suppliers of the same fuel. Many of the State's energy markets, including petroleum, propane and coal are currently served by competitive entities not subject to governmental price regulation. The State's natural gas and electricity markets, on the other hand, have traditionally been served by monopoly utilities subject to price regulation.

Several actions at both the Federal and State levels have fostered increased competition in the energy markets. These actions have increased competition among fuels and introduced competition into markets traditionally served by monopoly utilities.

## Governmental Initiatives to Increase Energy Competition

### Federal Energy Regulatory Commission (FERC) Orders 436 and 636

In 1985, the Federal Energy Regulatory Commission (FERC) issued Order Number 436<sup>4</sup> which sought to increase access to retail customers by natural gas suppliers. Since that time, there has been a substantial increase in the number and volume of gas transportation arrangements where the sale of gas is no longer provided by a regulated utility. As a result of Order Number 436, and a succession of subsequent orders, there has been a decrease in the wellhead prices for natural gas. This price reduction, however, has only been realized by those customers with the size and expertise to handle their own gas supply responsibilities.

In April 1992, FERC issued Order Number 636<sup>5</sup>. One of the main functions of this order was to eliminate the interstate pipelines as merchants of natural gas. It also defined the rules for a secondary interstate capacity market

through "capacity release". These steps further increased the ability of those customers with access to the interstate markets to benefit from competition.

The FERC, in its adoption of Order Number 636, stated that:

*... this rule, when fully implemented, will finalize the structural changes in the Commission's regulation of the natural gas industry. This rule will therefore reflect and finally complete the evolution to competition in the natural gas industry initiated by those changes so that all natural gas suppliers, including the pipeline as merchant, will compete for gas purchasers on an equal footing. ... this promotion of competition among gas suppliers will benefit all gas consumers and the nation by ensuring an adequate and reliable supply of natural gas at the lowest reasonable price."*

At the time of Order Number 636, New Jersey's natural gas utilities, while permitting the transportation of natural gas, were still operating under tariffs geared toward the utility as the prime source for gas supplies to retail customers. Through a number of industry-wide conferences, the Board of Public Utilities sought to bring the benefits of Order Number 636 to the State level and to provide the same competitive advantages enjoyed by large volume customers to smaller commercial and industrial customers. Consequently, on December 20, 1993, the Board of Public Utilities issued "Guidelines for Further Unbundling of New Jersey's Natural Gas Services," BPU Docket Number GX93110516.

### State Board of Public Utilities' "Guidelines for Further Unbundling of New Jersey's Natural Gas Services"

The 1991 New Jersey Energy Master Plan recognized that the structure of the interstate natural gas industry, through the actions of FERC, was changing. FERC Order Number 636 effectuated the unbundling of interstate pipeline services and effectively eliminated the interstate pipeline as a merchant of natural gas. Where local distribution companies (LDCs) previously contracted for gas supplies directly from the interstate pipelines, the LDCs now bear the responsibility of determining how much storage, gathering, upstream capacity, back-up supplies, etc. they need.

The basic premise underlying the changes promulgated by the FERC in issuing Order Number 636 is that competi-

tion, rather than regulation, will more efficiently allocate wellhead and pipeline capacity. Gas buyers now have access to a full range of supplies and services which, for the most part, are priced in competition with other similar offerings. The FERC no longer regulates the price of gas sold to end-users. The unbundling of the interstate merchant function now provides opportunities and risks for the LDCs and larger end-users to improve their efficiency and thereby reduce costs.

As a result of the unbundled service available due to the gas industry restructuring that followed FERC Order Number 636, the Gas Division staff of the Board of Public Utilities recognized that the natural gas industry on the State level would also be evolving. To prepare for the evolving changes and to facilitate actions to bring the potential benefits of Order Number 636 to the State, the Gas Division staff of the Board of Public Utilities, under the guidance of Commissioner Carmen J. Armenti, conducted meetings with all segments of the natural gas industry, under the collective heading of the Gas Policy Group, to discuss the future of the local natural gas distribution company function in New Jersey.

As a result of these discussions, Gas Division staff prepared a set of guidelines to be used as a blueprint for the further unbundling of in-state natural gas services. All members of the Gas Policy Group had an opportunity to comment on the proposed guidelines. The Board of Regulatory Commissioners, predecessor to the Board of Public Utilities, on December 20, 1993, adopted the "Guidelines For Further Unbundling of New Jersey's Natural Gas Services," BPU Docket Number GX93110516, which are intended to encourage and promote unrestricted access to natural gas and natural gas related services in New Jersey for all customer classes except, at this time, the residential end-user.

The Board of Public Utilities guidelines were purposely very general. The Board of Public Utilities recognized that customer demographics, geography and operating philosophies vary sufficiently among LDCs so that each LDC should be afforded the opportunity to develop an individual unbundling plan, taking into account its own unique operating philosophy and load profile.

The Board of Public Utilities unbundling Order required each LDC to make a compliance filing by April 1, 1994. Pursuant to that Order, the four LDCs each filed a proposed unbundling plan.

On October 19, 1994, in BPU Docket Number GT 94040094, the Board of Public Utilities approved an unbundling plan for New Jersey Natural Gas Company. Subsequently, the Board of Public Utilities approved unbundling plans for Elizabethtown Gas Company (Dkt. Number GT94030057), Public Service Electric & Gas Company (Dkt. Number GT94040095) and South Jersey Gas Company (Dkt. Number GR94010002). All four unbundling plans remove barriers to and promote unrestricted access to natural gas and natural gas services for the commercial and industrial customers of the State.

The Board of Public Utilities' approval of the four unbundling plans put New Jersey in the forefront of bringing the benefits of FERC Order Number 636 to the State level. The success of the Board of Public Utilities' unbundling plans will be reviewed beginning in the summer of 1996.

## The Public Utilities Regulatory Policies Act of 1978

The Public Utilities Regulatory Policies Act (PURPA) was enacted in 1978 as part of the National Energy Policy Act. PURPA was intended, in part, to encourage the development of cogeneration and small power production facilities as tools in decreasing the country's dependence on imported fossil fuels. Cogeneration facilities use fossil fuels more efficiently by producing both electricity and useful thermal energy from a single fuel source. Small power production facilities use renewable or waste fuels. PURPA Section 210 encourages the development of qualifying cogeneration and small power production facilities (QFs) primarily by requiring utilities to purchase the output from a QF at its avoided cost and by exempting a QF from utility-type regulation.

The Board of Public Utilities adopted its initial PURPA policies in 1981 which called for electric utilities to negotiate power purchase agreements with QFs based on their forecast of avoided costs. The Board of Public Utilities policies were intended to further encourage the development of cogeneration and small power production facilities.

The Board of Public Utilities' policies were successful in that regard, with utilities receiving offers for power from QFs which exceeded their incremental capacity needs. In 1988, the Board of Public Utilities modified its policies by adopting competitive bidding as a process for selecting the best projects from competing nonutility projects. The Board of Public Utilities' 1988 policies also expanded the players in

the marketplace by allowing independent power producers, in addition to QFs, to compete to provide incremental power needs.

Since the Board of Public Utilities adopted its initial policies in 1981, New Jersey electric utilities have entered into Board of Public Utilities-approved agreements to purchase over 3,400 megawatts (MW) from nonutility generators. The 3,400 MW consists of approximately 2,625 MW of cogeneration facilities, 480 MW of small power production facilities and 295 MW of independent power production facilities. Over 2,000 MW of these projects are operating today and over 600 MW of these projects are currently under development. Approximately 800 MW of these projects have been terminated, and will not be developed.

Since 1981, New Jersey utilities have added approximately 300 MW of new generating capacity. New Jersey utilities have also upgraded or plan to upgrade approximately 1,000 MW of capacity by retiring old turbines and replacing them with new ones or by repowering old generating facilities.

## The Energy Policy Act of 1992

The Federal Energy Policy Act of 1992 (EPAct) was enacted in October 1992. EPAct comprises a wide variety of energy policies, many of which impact regulated utilities.

The EPAct has encouraged greater competition in the wholesale electric power market in two ways. First, EPAct created a new class of generators known as exempt wholesale generators (EWGs). EWGs are defined, in part, as entities which are exclusively in the business of owning and operating eligible facilities and selling electric energy at wholesale. EWGs differ from PURPA QFs in that they are not required to be either a cogeneration facility or a small power production facility as defined in PURPA. EWGs are exempt from regulation under the Public Utilities Holding Company Act of 1935. The effect of this section of the EPAct is to greatly expand the number of entities which can compete in the wholesale electric power market by including EWGs in addition to QFs and utilities.

Second, the EPAct encouraged greater competition in the wholesale electric power market by creating more open access to transmission. The EPAct authorized the FERC to order an electric utility to wheel power in wholesale transactions. This gives utilities, EWGs and QFs greater access to

wholesale markets. This also allows wholesale customers, such as municipal utilities, to purchase power from entities other than the local electric utility.

Previously, municipal utilities purchased power from the utility to which its transmission and distribution facilities were physically connected, typically the investor-owned utility which provided service in that geographic area. As a result of the EPAct provision, which gives the FERC the authority to require the local utility to wheel power into the municipal utility, all of the nine municipal utilities in New Jersey have either negotiated to purchase their electric power from a utility other than the local utility, or have used the leverage to do so to negotiate price reductions in the range of 18 to 28 percent from the local utility. New Jersey utilities have also negotiated contracts to sell power to out-of-state municipal utilities.

The Energy Policy Act, combined with PURPA and the Board of Public Utilities' policies implementing PURPA, have facilitated the development of a competitive wholesale power marketplace. A recent solicitation for power issued by Jersey Central Power and Light Company (JCP&L) in January 1994, exemplifies the competitiveness of the wholesale power marketplace in New Jersey. JCP&L's solicitation did not include a specific block size, although JCP&L's capacity plans indicated a need for several hundred megawatts over the next few years. JCP&L also indicated its preference for short to medium-term contracts over long-term contracts. JCP&L received offers for 7,300 MW of power. One hundred and fifteen proposals were received, including one-third from nonutility generators, one-third from utilities and one-third from power marketers.

The Energy Policy Act, along with other Federal actions, including PURPA, and the Clean Air Act Amendments of 1990 (CAAA), combined with the State Board of Public Utilities' gas unbundling policies, have also stimulated competition in the natural gas power market. The interstate portion of the natural gas industry is substantially deregulated today, and many states are following the Federal lead and enacting similar policies at the state level. New Jersey is playing a lead role in that regard, through the implementation of guidelines for unbundling and the approval of unbundling plans for each of its four gas utilities.

Competition in the natural gas industry has benefited customers as a result of utilities cutting costs to enable them

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to compete effectively and by expanding the level of services to better match customers' needs. Competition has also given customers an opportunity to lower their costs by negotiating price reductions from alternative suppliers. While this option has only been available to the State's large industrial customers, the Board of Public Utilities' approval of unbundling plans has expanded this opportunity to all of the State's commercial and industrial customers. The Board of Public Utilities is investigating the potential for expanding gas unbundling to residential customers.

## The Clean Air Act Amendments of 1990

The Federal Clean Air Act Amendments of 1990 (CAAA) will affect the State's energy markets in many ways. It will impact all users of fossil fuels, including both stationary and mobile sources. The CAAA include requirements to control sulfur oxides, nitrous oxides, particulates, volatile organic compounds, and 189 hazardous air pollutants (HAPs). The CAAA also include requirements which will impact transportation patterns and transportation fuels.

Of significant note, the CAAA introduced market-based concepts such as emissions trading. Specifically, it created a sulfur dioxide (SO<sub>2</sub>) trading allowance system<sup>6</sup>. The CAAA placed a national cap on the level of SO<sub>2</sub> that can be emitted and created SO<sub>2</sub> allowances that authorize the holder to emit one ton of SO<sub>2</sub> per year. Affected facilities which desire to emit SO<sub>2</sub> can either create an allowance by reducing emissions of SO<sub>2</sub> elsewhere, or purchase an allowance from a facility that created excess allowances by overcontrolling. The SO<sub>2</sub> trading allowance system has reduced the cost of compliance with the CAAA to levels significantly below the costs anticipated.

## Federal Deregulation of the Telecommunications Industry

The deregulation of the natural gas industry followed closely the deregulation of the telecommunications industry. On January 1, 1984, the AT&T divestiture took effect. Under the divestiture, AT&T's long distance operation and customer equipment functions were separated from its associated local service companies as part of a Federal District Court consent decree, commonly referred to as the Modification of Final Judgement<sup>7</sup>. The Modification of Final Judgement and the divestiture of AT&T ended AT&T's

monopoly over the provision of local and long-distance telephone service and associated customer equipment. Once competition entered these two areas, prices decreased and options increased. Customers could now choose from a variety of equipment vendors for telephone instruments. Many new instruments provided features, and customers were given the option of either buying or renting them.

In the long-distance arena, many new competitive providers immediately vied to provide services to customers. The designation of long-distance calling areas known as local access and transport areas (LATAs), both across states and within states, greatly enhanced the competitor's ability to compete. Since divestiture, customers have been able to avail themselves of lower prices for competitive services and a greater number of service and billing arrangements provided by a host of competition-driven service providers.

Following the divestiture, the Federal Communications Commission (FCC), by Order dated February 24, 1986<sup>8</sup>, required the states to deregulate and detariff the installation and maintenance of customer premise wiring owned by telephone companies as of January 1, 1987<sup>9</sup>. This action allowed customers to choose a source other than their local telephone company to install and maintain their telephone wiring beyond the network protector, and required local telephone companies to expense all future customer premise wiring work. Customers may now install and maintain the wiring themselves, use the services of the local telephone company or choose an alternate vendor such as an electrician.

In 1987, the Board of Public Utilities approved a request by New Jersey Bell known as the Rate Stability Plan. The Rate Stability Plan segregated all of New Jersey Bell's services into two categories, competitive (Group I) and rate regulated (Group II). In return for this segregation of service and a relaxed earnings surveillance of competitive services, New Jersey Bell agreed not to increase its rates for tariffed services for up to six years. The Rate Stability Plan identified six New Jersey Bell services as competitive, including pay phone, centrex, directory advertising (Yellow Pages) billing, collection and high-speed channel services.

## State Telecommunications Act of 1992

On January 17, 1994, the Telecommunications Act of 1992<sup>10</sup>, became effective. The New Jersey Legislature passed the Telecommunications Act, in part, due to the conclusions

reached in a Board of Public Utilities-sponsored study which examined the effects of an advanced telecommunications network on New Jersey's economy. The study concluded that an advanced telecommunications network would spur economic development in the State. The Telecommunications Act empowered the Board of Public Utilities to consider alternative regulation requests by local telephone carriers, and declared all long-distance carrier services as competitive, removing them from regulation as to rates, terms and conditions of service. This enables long-distance carriers to change rates quickly and introduce new services on very short notice.

On May 6, 1993, the Board of Public Utilities approved with modification an alternative regulatory proposal by New Jersey Bell which, among other things, freezes the rates for residential local service until the year 2000, absent any exogenous event or Board of Public Utilities-approved revenue neutral restructure. Other rate regulated service rates may experience rate changes according to an index-based mechanism beginning in 1996.

On June 30, 1994, the Board of Public Utilities approved a stipulation of settlement between the State's long-distance companies and Bell Atlantic-New Jersey which allows the long-distance carriers to offer intraLATA toll services to their customers through access codes, ending Bell Atlantic-New Jersey's monopoly on such services. Although the allowance of access code competition has only recently been authorized, it appears that competition is driving prices down and offering more promotional services.

In accordance with its June 30, 1994 ruling, the Board of Public Utilities on January 24, 1995 initiated an investigation and rulemaking proceeding to explore the extent to which competition, on a presubscription basis, should be permitted within the local access transport areas (LATAs) of New Jersey.

Industry restructuring facilitated competition in the telecommunications industry. The advancement of competition in the telecommunications industry was enhanced by the enactment of New Jersey's "Telecommunications Act of 1992" which authorized the Board of Public Utilities to consider alternative forms of regulation and to permit the competitive interexchange telecommunications marketplace to operate without traditional utility regulation. The Board of Public Utilities, in its January 1994 "Response to the

Telecommunications Act of 1992," concluded that the Telecommunications Act has been successful in stimulating the development of an advanced telecommunications network and in limiting regulatory delay for competitive services. The marketplace has been enriched by new services and new options for customers.

## Restructuring The Electric Power Industry

The electric power industry has traditionally been guided by cost-of-service regulation. In New Jersey, rate-base/rate-of-return regulation has been employed to determine a utility's revenue requirement, while rates have been based on cost-of-service studies.

Minimal opposition to cost-of-service regulation existed prior to the 1970s. The pre-1970 era represented stable or declining electric rates, increasing productivity and rising utility revenues. One of the primary benefits of cost-of-service regulation was its fairness. All customers paid rates based on the average cost of servicing their particular customer class.

Cost-of-service regulation ties utility earnings to the level of investment in facilities such as generating plants and transmission and distribution lines. This provides an incentive for utilities to invest in capital-intensive projects. Cost-of-service regulation also provides for the flow-through to ratepayers of prudent operating expenses such as operation and maintenance costs. Cost-of-service regulation has been viewed by critics as an impediment to efficient investment and operation in the electric utility industry. Cost-of-service in many ways also fails to align the objectives of ratepayers and shareholders.

From the standpoint of economics, public utilities have traditionally been considered natural monopolies operating in industries in which the product, the utility service, can be supplied most efficiently by one company rather than many providers. Currently, this remains true for the transmission and distribution of electricity; installing duplicate poles and wires to supply the same customers is clearly wasteful. Until relatively recently, it was also believed to be true of the generation function, which through economies of scale typically achieved lower unit costs through the installation of large central generating stations as compared to several smaller, dispersed generating units.