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NOTES


I. INTRODUCTION

In 1981, ten years after they had initiated the Pilgrim II nuclear power plant project, Boston Edison Company's Board of Directors voted to abandon all efforts to build it. On October 16, 1981, Boston Edison Company (Edison) filed a revised rate schedule with the Massachusetts Department of Public


3. In Massachusetts, public utilities may obtain an increase in the amount recovered from retail ratepayers by filing a revised schedule of rates with the Massachusetts Department of Public Utilities. After a public utility proposes an increase, the Department must hold a public hearing and examine the advisability of the increase. Pursuant to its ratemaking authority, the Department may delay effectiveness of the proposed prices no longer than ten months from the earliest date on which the new amount might otherwise become effective. The Department incorporates any required changes into the schedule. MASS. GEN. LAWS ANN. ch. 164, § 94 (West 1976).

Within the scope of public utility ratemaking, two distinct areas exist in which the Department makes binding judgments. The first deals with the total amount recoverable from the ratepayers. The second involves the allocation of the amount among different classes of users — residential, commercial and industrial — usually on the basis of the cost of service to each class. See Jones, Judicial Determination of Public Utility Rates: A Critique, 54 B.U.L. REV. 873, 875 (1974). This note focuses on the first area only because of the two step process of decisionmaking. Once the regulatory agency allows recovery of nuclear power plant abandonment losses, the agency combines the recoverable amount.
Utilities (Department). Edison hoped to recoup its net investment, estimated at $278.3 million, in the Pilgrim II nuclear power plant project through the rate increase.

On April 30, 1982, the Department decided to allow Edison to recover a portion of its total abandonment losses through an increase in rates as a cost of providing electricity. Each year for thirteen years beginning May 1, 1982, Edison's ratepayers will pay $12,500,000.00 more for their electricity than if Edison had never begun the Pilgrim II project.

The Massachusetts Attorney General appealed the Department's decision, asserting that the Department did not have the authority to with other sources of increase; only then does the agency allocate the burden of this total amount among the ratepayers. Id.


7. See infra notes 24 & 29 and accompanying text.


Edison proposed either a one-time recovery or one over a shorter period of time. The Department rejected Edison's proposal to avoid placing a severe burden on the ratepayers, while allowing Edison to recover such a large amount through its rates. In Re Boston Edison Co., 46 Pub. Util. Rep. 4th (PUR) 431, 472-73 (Mass. Dep't of Pub. Util. 1982).


Statutory authority allows the Attorney General to intervene in all Department proceedings on behalf of any group of consumers. MASS. GEN. LAWS ANN. ch. 12, § 11E (West Supp. 1984). Thus, he becomes a party in interest to an administrative decision and may appeal if aggrieved. MASS. GEN. LAWS ANN. ch. 25, § 5 (West 1981).
approve rate increases which were to recoup an investment in a plant which would never render service. In Attorney General v. Department of Public Utilities, the court affirmed the Department's assertion of authority to allow the rate increase.

Generally, Massachusetts regulatory practices prohibit the recovery of investments in new facilities until the public utility completes the project. Attorney General, however, presented a conflicting situation because the Department allowed partial recovery when the Pilgrim II nuclear power plant will never be completed. At a more practical level, the problem presented by Attorney General is the resolution of two seemingly opposed interests. The investors and Edison wanted to avoid paying for the abandonment losses by reducing or eliminating dividends. In contrast, the ratepayers objected to any increase in the cost of electricity which will result in no tangible benefit in the future.

This note examines various regulatory outcomes and policies imposed in reaction to the costs associated with nuclear power plant abandonment including complete allowance, partial allowance under a prudence/imprudence test, and the purported bar of any recovery. Further, this note discusses the rationales underlying the Department's decision to allow partial recovery as well as the implications of Attorney General in light of its probable effect on ratepayers. Finally, this note suggests legislation aimed at preventing imprudent costs as an amendment to existing Massachusetts statutory law concerning electric power plant construction.

II. BACKGROUND

A. The Economic and Legal Bases of Rate Regulation

The status of electric companies as public utilities emanates

12. Id. at 232, 455 N.E.2d at 427.
14. See infra note 93.
from economic and legal theories that conclude that the production
and distribution of electricity should be subject to regulation. 16 Eco­
nomic theory characterizes electricity producing enterprises as natural
monopolies under the reasoning that the more electricity a single com­
pany produces, the lower the cost of each additional unit of electricity
from the company. 17 Thus, the objective of efficiency is served if one
company maintains a monopoly over the supply of electricity in a
given area. 18 A corollary in economic theory holds that the potential
exists for monopolies to charge whatever price they choose without
losing consumer demand. 19 Absent regulation, the electric company
could abuse its position by demanding unreasonably high prices.

In response to the need for regulation, the law compels public
utilities to accept only reasonable compensation for the service they
provide and places on them an obligation to provide an adequate sup­
ply of electricity. 20 The latter responsibility entails a duty to build new
facilities to meet increased demands or other business oriented contin­
gencies. 21 By regulating the rates charged by a public utility, the legal
system seeks to enable the company to implement its two legal
obligations. 22

In Massachusetts, the Department of Public Utilities performs
the regulatory function. 23 The Department and all similar regulatory
agencies employ the guiding principle that the allowed rate be just and
reasonable. 24 As interpreted by the United States Supreme Court, the

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16. M. FARRIS & R. SAMPSON, PUBLIC UTILITIES: REGULATION, MANAGEMENT,
17. Id. The necessity of a close geographical connection between the producing
plant and the land of the consumer further distinguishes public utilities from totally private
natural monopolies. The most efficient service can only be achieved, therefore, by allowing
one company to provide all the electricity in an area. J. BONBRIGHT, PRINCIPLES OF PUB­
LIC UTILITY RATES 7-17 (1961).
19. See C. PHILLIPS, supra note 15, at 63-65. Although most theorists concede that
other sources of energy such as gas or wood subject electricity to some competition,
"neither the oil lamp nor the Welsbach gas mantle can seriously rival electric lighting." I
20. Protection of the company's status as a monopoly within a specific geographical
area justifies the obligations. Thus, rate regulation substitutes for competition in the mar­
The Department's regulatory authority extends only to electric companies providing retail,

A single static method cannot delineate a definition of the concept of reasonable rates.
process of determining just and reasonable rates involves the balancing of both consumer and investor interests.\textsuperscript{25} In pursuit of this somewhat vague objective, the law of regulatory rate approval has followed a traditional technique of analysis.

\section*{B. \textit{Orthodox Rate Regulation Analysis}}

Any regulatory rate decision ultimately seeks to set a level of revenues for a particular company that reflects production expenses plus a reasonable profit.\textsuperscript{26} Future rates are usually made solely with reference to the company’s past activities and surrounding economic circumstances. Thus, the department adopts a test year\textsuperscript{27} as the parameter within which to set the value of four basic components used as tools to reach just and reasonable rates.

First, the department ascertains the gross revenue of the company

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The factors considered and methods employed must change with the times. Federal Power Comm’n v. Hope Natural Gas Co., 320 U.S. 591, 602 (1944). The most pervasive feature in the reasonableness determination is the cost of producing electricity. "Cost," as used in ratemaking, includes not only the company’s out-of-pocket expenditures but also the amount it must pay investors to provide capital. The latter element of "cost" compels the public official to allow the company \textit{an opportunity} to earn a reasonable profit. J. Bonbright, \textit{supra} note 17, at 63-71.


\textsuperscript{25} Federal Power Comm’n v. Hope Natural Gas Co., 320 U.S. 591, 603 (1944). In the broad area of rate determination, the investors are interested in deriving income from the rates and having the company maintained as a stable business. The consumers desire the minimization of rates and an adequate supply of electricity. The latter consumer interest may or may not dovetail with the investors’ interest in the company’s financial integrity. \textit{See} J. Bonbright, \textit{supra} note 17, at 38.

\textsuperscript{26} \textit{See supra} note 24.

\textsuperscript{27} The Department usually chooses the most recent twelve month period preceding its rate investigation as the test year. The department bases all its decisions concerning future rates on the company’s activities during this period. R. Schmalensee, \textit{supra} note 15, at 27.
during the test year.\textsuperscript{28} The department eventually compares the gross revenue to the other three components to determine whether it is equal to the rate level which should have been earned as costs of service and profit. The second component, operating expenses, generally accounts for the company's out-of-pocket expenditures which represent the cost of providing service.\textsuperscript{29} The interaction of the third and fourth components of ratemaking analysis, rate base and rate of return, establish a reasonable margin of profit.\textsuperscript{30} The rate base comprises the amount of capital invested in facilities that were used and useful in providing electricity during the test year. When multiplied by the rate of return, it yields the amount of allowable profit.\textsuperscript{31}

Since the rate base has a fixed definition changing only with investment activities producing tangible electricity service, the department varies the rate of return to reflect the economic situation during the test period. Two factors designed to allow an economically reasonable profit margin, therefore, determine the rate of return.\textsuperscript{32} First, under the objective of just compensation for assets dedicated to the public,\textsuperscript{33} the department considers the amount of profit which other businesses of comparable risk earn.\textsuperscript{34} Second, the department ascertains the rate of return which the company must pay its investors to

\textsuperscript{28} More specifically, gross revenue is the total amount received directly from the consumers during a twelve month period. \textsc{I A. Priest}, supra note 19, at 45.

\textsuperscript{29} \textsc{I A. Priest}, supra note 19, at 50. The major portion of operating expenses are directly connected with the production of electricity distributed during the test period. This concept, however, also includes amortization of the investment in property previously acquired and currently providing service. In Massachusetts, the Department has allowed charitable contributions and advertising expenditures as operating expenses as long as they are reasonable and benefit the company's business. American Hoechst Corp. v. Department of Pub. Util., 379 Mass. 408, 413, 399 N.E.2d 1, 4-5 (1980); New England Tel. and Tel. Co. v. Department of Pub. Util., 360 Mass. 443, 482-90, 275 N.E.2d 493, 517-21 (1971) (advertising and charitable expenditures are legitimate expenses of a business). The General Court has recently limited a company's recovery of advertising expenditures, seemingly overruling \textit{New England Tel. and Tel. Co.}, based on the content and goals of its advertising. \textsc{Mass. Gen. Laws Ann. ch. 164, § 33A (West Supp. 1984) (enacted in 1981)}.

\textsuperscript{30} \textsc{R. Schmalensee}, supra note 15, at 27.

\textsuperscript{31} \textsc{I A. Priest}, supra note 19, at 139-42.

A trend among commentators on ratemaking exists favoring replacement of the bifurcated system of reference to a rate base and a rate of return with one relying exclusively upon the reasonableness requirement established in constitutional guidelines and economic principles. Thus, the amount of profit should be sufficient "to maintain confidence in the financial integrity of the enterprise; to maintain the credit of the enterprise; and to attract capital to the enterprise." \textsc{Foster, Fair Return Criteria and Estimation}, \textit{28 Baylor L. Rev.} 883, 885 (1976).

\textsuperscript{32} \textsc{M. Farris & R. Sampson}, supra note 16, at 118-19.

\textsuperscript{33} \textit{See supra} note 24.

\textsuperscript{34} \textit{Bluefield Water Works & Improvement Co. v. Public Serv. Comm'n of W. Va.}, 262 U.S. 679, 692-93 (1923). \textit{See also Federal Power Comm'n v. Hope Natural Gas Co.},
maintain a continuing source of capital to accomplish its obligation of adequate service.\footnote{35}

After gross revenues, operating expenses, the rate base, and the rate of return have been established, the department adds the operating expenses to the allowed return, computed by multiplying the rate base by the rate of return, to determine the company's revenue requirement for the test year. If the revenue requirement exceeds the gross revenues collected during the test year, then the department increases the total amount recoverable from consumers by an amount equal to the deficiency.\footnote{36}

C. Rate Regulation After the Abandonment of a Nuclear Power Plant Prior to Completion

1. Application of Regulatory Concepts to Account for Recovery of Abandonment Losses

Regulatory agencies in several states have allowed public utilities to recover the costs of abandoned projects.\footnote{37} These regulatory agencies followed the basic ratemaking methodology, but they diverged into two methods of accounting for the costs: increasing the rate of return or allowing an addition to operating expenses.

In Washington Utilities & Transportation Commission v. Pacific Power & Light Co.,\footnote{38} the electric company sought to recover the share of its investment in two jointly owned, prudently abandoned\footnote{39} nuclear power plant projects allocated to its service area in Washington. In response to the company's request, the Washington Utilities & Transportation Commission (Commission) increased the rate of return.\footnote{40} Thus, the Commission allowed the company to recover its expenditures by increased rates through an increase in the allowed return.\footnote{41} The Commission reasoned that the rate of return could act as an appropriate category in which to reflect the abandonment losses because investors would perceive that the company had become a higher risk investment. As a result, the company would have to pay larger divi-

\footnote{36. P. GARFIELD & W. LOVEJOY, PUBLIC UTILITY ECONOMICS 44-45 (1964).}
\footnote{37. See infra notes 52-59 and accompanying text.}
\footnote{39. See infra notes 52-59 and accompanying text.}
\footnote{40. 51 Pub. Util. Rep. 4th (PUR) at 168.}
\footnote{41. See supra note 29 & 34 and accompanying text.
dends to attract capital in order to be able to perform its service obligation. Since the rate of return is partially based on the company's cost of capital, losses which might cause a rise in this cost justified recovery by a higher rate of return.\(^{42}\)

Another method would allow the recovery of abandonment costs as operating expenses.\(^{43}\) The second treatment parallels the company's recovery of capital invested in new facilities through the mechanics of a depreciation expense while the facility generates electricity.\(^{44}\) If the planned facility were completed and were to begin service, however, the company would be able to reflect its value in an increased rate base, thereby gaining an opportunity to earn a greater amount of profit.\(^{45}\) Thus, the "operating expense" method restores the amount invested and lost without allowing the company to profit on an investment that will never benefit the consumers.\(^{46}\) A majority of agencies allowing recovery for abandonment losses have used the "operating expense" method.\(^{47}\)

2. Policy Rationales to Allow Recovery of Abandonment Costs

Generally, decisions to allow recovery of abandonment costs stem from the view that the regulatory agency must balance the investor and the consumer interests in order to arrive at just and reasonable


\(^{44}\) 1 A. PRIEST, supra note 19, at 112-13.

\(^{45}\) See supra notes 29-31 and accompanying text.


\(^{47}\) In Re Atlantic City Elec. Co., 51 Pub. Util. Rep. 4th (PUR) 109, 115 (N.J. Bd. of Pub. Util. 1983). Most, if not all, of the agencies which have allowed the company to recover abandonment losses from the ratepayers through the operating expense account have characterized the losses as flowing from an extraordinary property loss incurred in an effort to fulfill the "adequate service" obligation. See, e.g., In Re Rochester Gas & Elec. Corp., 45 Pub. Util. Rep. 4th (PUR) 386 (N.Y. Pub. Serv. Comm'n 1982); In Re Virginia Elec. & Power Co., 29 Pub. Util. Rep. 4th (PUR) 65, 76 (Va. St. Corp. Comm'n 1979). They derive their characterization of the losses from the accounting regulations placed on interstate electric companies under the jurisdiction of the Federal Energy Regulatory Commission (FERC). Cf. Note, Allocation of the Risk of Constructing Electric Power Plants, 1976 WASH. U.L.Q. 517, 520-21. The regulations provide for an account that "shall include extraordinary losses on property abandoned or otherwise retired from service which are not provided for by the accumulated provisions for depreciation or amortization and which could not have been foreseen and provided for, and extraordinary losses... which could not reasonably have been anticipated." 18 C.F.R. § 101 (1983) (emphasis added). The last condition embodies the prudence standard which almost all state agencies employ in allowing recovery. See infra notes 63-65 and accompanying text.
In the question of who should pay the costs of abandonment, the ratepayers presumably desire not to pay for a facility that will never provide them with any service. One may further surmise that ratepayers are also interested in adequate and economical service. To fulfill the latter interest, the company must plan to meet future electricity demands and other contingencies. Thus, expenditures in planning to build a facility based on projections in demand and forecasts of the availability of the company's raw materials correspond to the ratepayers' interest, even though the company must later abandon the project prior to completion. The consumers' interest can be defined, therefore, as a desire not to pay for a company's waste or inefficiency. The investors' interest, on the other hand, lies in receiving the highest return possible on their capital investment and in maintaining the financial integrity of the company. Presumably, the ratepayers share in the latter of the investors' two interests.

Considering the interests of the investors as well as those of the ratepayers, regulatory agencies have passed all or some of the losses on


The United States Supreme Court originated the balancing viewpoint in a rate case not involving abandonment costs. Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944). The Court reviewed the Federal Power Commission's decision to reduce the rate level recoverable by the company from its customers. Id. at 593. The Court held that "it is the result reached not the methods employed which is controlling" on the issue of whether rates are just and reasonable. Id. at 602. In sustaining the Commission's decisions, moreover, the Court concluded that the ratemaking process as a whole "involves a balancing of the investor and the consumer interests." Id. at 603. The Commission satisfied the Court's balancing process when it arrived at a rate level sufficient to give the company enough revenue for the capital costs of the business as well as for operating expenses. Id. Consistent with its adoption of a fact-based balancing test, the Court affirmed the agency's decision without judging the propriety of the particular methods the commission employed in determining the value of the company's rate base and rate of return. Id. at 605-06.


to the ratepayers. The agencies rest their "sharing of loss" approach on a recognition of the company's legal obligation to add capacity to provide adequate service or produce electricity in the most efficient manner. Permitting recovery, agencies have used two main theories. The first holds that the investors have not previously been compensated for the risk inherent in the construction of a nuclear plant. The second measures the extent to which the company's management could not reasonably foresee the loss. Although other policies may be elucidated to support a recovery of prudent investments in new facilities that are never completed, the above two theories are the most common.

The risk compensation theory requires an investigation of whether the investors previously received compensation for the risk of non-completion. Thus, the inquiry focuses primarily on the rate of return allowed in the past. The risk for the company of the abandonment and loss of the investment would have to be ascertained according to the characteristics of the project undertaken and the prior experience of businesses undertaking similar projects. Since investors require a direct relationship between the risk of loss and the amount of dividends, the regulatory agency would then have to calculate the appropriate rate of return to compensate an investor for bearing the ascertained risk. Finally, the appropriate rate of return would be compared to the actual rate of return effective prior to abandonment. If the actual rate is lower than the projected rate, then the regulatory agency would pass the loss sustained by the cancellation on to the ratepayers.

53. See infra notes 79-80 and accompanying text.
Total reliance upon the risk compensation method, however, may lead to an inequitable apportionment of the loss. First, it ignores the question of whether the company's management instituted and pursued the project in a prudent manner. Since ratepayers have less control than investors over management decisions, the investors should be charged with losses sustained as a result of imprudent management. Secondly, the two components of the theory — risk of loss and the appropriate return which would compensate for it — would be difficult to ascertain after the loss had occurred.

The other common rationale considers whether the company's managers foresaw or should have foreseen the cancellation. If the investment loss did not become apparent until the time the company decided to abandon it, the regulatory agencies have held that the company made prudent decisions to continue. Thus, the test under the second rationale asks whether the negative events surrounding the


58. See infra notes 63-65 and accompanying text.

59. The ratepayers' input into management decisions concerning construction is non-existent because they are relegated solely to control through the regulatory agency's ratemaking authority. City of Boston v. Edison Elec. Illum. Co. of Boston, 242 Mass. 305, 310-14, 136 N.E. 113, 116-17 (1922). Cf. E. Berlin, C. Cichetti & W. Gillen, Perspectives on Power 91 (1975) (even if citizens may participate in licensing proceedings any input arrives too late because growth determination will have already been made) [hereinafter cited as E. Berlin].


62. Note, supra note 54, at 1481. The risk of loss approach, furthermore, fails to recognize that the company is only entitled to an overall rate level which allows an opportunity to recover the costs of providing electricity and a reasonable profit. See supra note 24 and accompanying text.


64. The events which have made abandonment a more frequent occurrence in recent years include the rapidly increasing costs of building nuclear power facilities which must be funded through capital attraction, the difficulties in engineering design due to environmental and health concerns, and the unprecedented negative demand response to a rise in the cost of oil for the production of electricity. Allison, Judging the Prudence of Constructing Nuclear Power Plants: A Report to the Oklahoma Corporation Commission, 15 Tulsa L.J. 262, 267 (1980). For example, authorities have cited two factors as the major causes of cancellation: the moratorium on licensing of construction as a result of the Three Mile Island accident and the upwardly spiraling cost of construction. See Sommers, Recovery of Electric Utility Losses From Abandoned Construction Projects, 8 Wm. Mitchell L. Rev. 363, 364 (1982); Note, Who Shall Bear the Cost of Abandonment, 11 Cap. U.L. Rev. 91, 91-92 (1981). Cf. Cook, Nuclear Follies, Forbes, Feb. 11, 1985, at 82 (other major causes
project made its initiation or continuation imprudent. The line is
drawn by looking at whether the management's decisions were reason-
able at the time considering the circumstances under which they were
made. The agencies allow the company to recover all costs prudently
incurred from the ratepayers. 65

ANALYSIS

A. Massachusetts Department of Public Utilities' Decision to Allow
   Boston Edison to Recover Part of its Investment in Pilgrim II

In the regulatory rate proceeding which gave rise to Attorney
General, the Massachusetts Department of Public Utilities noted that
the losses on Pilgrim II were the largest to date nationwide and that its
task was to achieve balance between consumer and investor interests. 66
Returning to the basic attributes of public utility business and regula-
tory control, 67 the Department identified three essential components:
the obligation of the company to provide adequate service; the neces-
sity of regulatory price control; and a public obligation to support the
financial integrity of the company that provides service. 68 The De-
partment determined that the components compelled sharing the
losses of Pilgrim II's cancellation. 69

In order to support further the contention that the losses had to
be shared, the Department engaged in a pseudo-risk compensation
analysis. 70 It reasoned that the cancellation of Pilgrim II constituted
an "extraordinary risk" legitimately undertaken by the company to
replace its dependence upon the unpredictable supply of oil. 71 The

of cancellation include disregard of cost effectiveness, poor conventional construction
methods, and inadequate management controls over construction progress).

Arguably, the companies should have foreseen these events, especially the engineering
problems during construction, and resolved them at the stage of an initial decision on the
viability of nuclear power. See infra notes 127-30 and accompanying text for a possible
explanation of the company's refusal to confront potential problems with nuclear power
plants. The recent multiplicity of nuclear power plant abandonments emphasizes the need
for a reexamination of nuclear power in terms of its financial as well as environmental
hazards.

65. Note, supra note 54, at 1481. See Fitchburg Gas & Elec. Light Co. v. Depart-
67. See supra notes 15-35 and accompanying text.
Dep't of Pub. Util. 1982).
69. Id. at 460.
70. Id. at 457-60. See supra notes 55-62 and accompanying text.
71. A Department decision, rendered before cancellation, supplied the conclusion
here that the company had legitimately undertaken the Pilgrim II project and, therefore,
Department defined "extraordinary risk" as one usually encountered only in enterprises that offer investors the possibility of receiving large dividends upon their investments. In public utility law, however, regulatory price control serves to limit the amount of dividends which a public utility may distribute to its investors. Thus, the Department determined the unforeseen risk component embodied in it. In Re Boston Edison Co., 46 Pub. Util. Rep. 4th (PUR) 431, 437 (Mass. Dep't of Pub. Util. 1982). In 1979, Edison's request for rate increases totaling $200 million spurred the Department to investigate the Pilgrim II construction project. See Boston Edison Co., D.P.U. Order No. 19494, at 5 (Mass. Dep't of Pub. Util. Sept. 22, 1981). The investigation included an examination of "future demand for electricity in the company's service territory, the appropriate level of reserve [electric production] capacity, and alternatives to the [Pilgrim II] construction program." In Re Boston Edison Co., 46 Pub. Util. Rep. 4th (PUR) 431, 433 (Mass. Dep't of Pub. Util. 1982). Despite the seemingly large scope of the 1979 investigation, the Department declined to consider Edison's ability to finance the project to completion. Id. at 436. On September 22, 1981, one day before the company cancelled Pilgrim II, the Department issued its decision regarding justification of the project:

The results clearly show the economic benefits of Pilgrim II. Just one year after the unit is placed in service its annual fuel savings exceed its total costs. By 1994, Pilgrim II would save ratepayers nearly $660 million in power costs, and that amount will continue to increase into the future.

We must emphasize that we do not rely solely on mechanical computations to reach this result. Indeed, we acknowledge that the many calculations included in this Order create a deceiving appearance of precision in an area fraught with uncertainty.

Rather, this decision represents a careful review of the record and a reasoned judgment about the prudence of the Company's current construction program. Despite the significant risks inherent in that undertaking, the consequences of continuing our present dependence on imported oil are far less acceptable. In the midst of all the uncertainty surrounding the issues in this case, the one development which we consider to be most likely is that the price of oil will continue to escalate at a rapid pace. We find it extremely difficult to overstate the problems associated with the Company's principal dependence upon a commodity which in eight years has increased in price in excess of 700 percent. Moreover, there is also considerable reason to doubt the reliability of oil supplies in the coming decade. The very real possibility of interruption of foreign-dominated supplies should be enough to mandate a policy of displacing oil-fired generation. Dependence which is so vulnerable to disruption places all domestic users in a precarious posture which is definitely contrary to state and national interests. Accordingly, it is an inescapable conclusion from this proceeding that oil, the Company's largest existing source of electric generation, is no longer an acceptable option. We have also determined that nuclear power, despite its recent problems, is most likely to be the least expensive generation alternative available to the Company.

It is these two conclusions that compel a finding that the Company's generation construction program is reasonable.


72. See supra notes 24-35 and accompanying text.
concluded that Edison's investors had not been compensated for the risk of non-completion of Pilgrim II.\textsuperscript{73}

The Department's analysis reflects a conclusory treatment of the risk compensation theory based on general notions of public utility economics and on the finding that the company's ability to provide adequate service in the future would be impaired if the ratepayers did not share the losses.\textsuperscript{74}

Instead of relying completely upon its risk compensation analysis, the Department proceeded to apply a prudence standard\textsuperscript{75} to Edison's actions throughout the project's life. It placed the burden on Edison to show that the need for the nuclear facility\textsuperscript{76} and the ability to finance it sufficiently justified the decision to continue at various times.\textsuperscript{77} Thus, the Department drew the line on sharing the losses by excluding those incurred after the level of risk had become unacceptably high and after the company's managers should have recognized it.\textsuperscript{78} Under its second analysis, the Department used the rationale of


The need to compensate investors for their initial contributions of capital rested on the theory that otherwise the company would fail. See Stewart, supra note 50, at 15-17. Since public utilities compete for operating cash, which they later recover from the ratepayers, an inability to pay the amounts demanded for the use of money would destroy the company's ability to perform its service obligation. In Re Boston Edison Co., 46 Pub. Util. Rep. 4th (PUR) 431, 458-60 (Mass. Dep't of Pub. Util. 1982).


\textsuperscript{75} The standard of scrutiny to which the Department held the company's managers was whether their decisions were reasonable "in light of all conditions and circumstances which were known at the time the decisions were made." In Re Boston Edison Co., 46 Pub. Util. Rep. 4th (PUR) 431, 438 (Mass. Dep't of Pub. Util. 1982).

\textsuperscript{76} See supra note 71.


\textsuperscript{78} Id. at 470-72. The date on which Edison should have abandoned Pilgrim II was set at June, 1980. Id. at 470. The Department allowed recovery for all costs incurred prior to that date. In the Department's view, the recovery had to include a carrying charge, which essentially provides a percentage return on the balance of the loss to be recovered in future years. The justification held that all money prudently spent should have been reimbursed on the date of cancellation. Since immediate reimbursement would place an inordi-
foreseeability of the loss to determine the amount each group would pay.

A third policy basis for allowing the losses from the cancellation of a prudently maintained nuclear plant project appears in the Department's reasoning. If the Department does not allow an electric utility to recoup its losses, then potential investors would demand higher dividends than the company, under regulatory restraint, would be able to pay. Even though the company might not reach bankruptcy, the necessary capital to implement new technologies in the production of electricity would be unavailable. Consumers would also suffer because they would be at the mercy of future events affecting the resource presently used to produce electricity.

B. Attorney General v. Department of Public Utilities


80. The Pilgrim II project represents the point nicely. Edison attempted to reduce dependence upon scarce and unreliable foreign oil by initiating the project. Id. at 448. Assuming that nuclear power was the best alternative to oil, Edison had as its overall objective to fulfill its obligation to respond to events making it uneconomical to rely on the supply of this raw material to maintain an adequate level of electricity. Id. at 459.

81. 390 Mass. at 232, 455 N.E.2d at 427.
1. The Role of the Judiciary in Reviewing the Department's Prudency Determination

The Attorney General waged an alternative attack on the propriety of the recovery allowed by the Department. The appellant assumed that the Department possessed the authority to consider allowance but argued that its determination of prudence was arbitrary and capricious.83

Under the Massachusetts State Administrative Procedure Act, the judiciary plays a restricted role in the review of administrative decisions.84 In public utility regulation, the supreme judicial court has reviewed the Department's factual findings only upon the company's showing that the Department reached a confiscatory decision.85 Furthermore, the arbitrary and capricious standard involves a test as to whether substantial evidence exists on the record to support the Department's conclusions.86 Since the Department examined and presented its reasoning in sustaining Edison's decisions at various points during the project's life, the supreme judicial court correctly concluded that it could not review the particularities of the Department's judgment. The court thereby dismissed the challenge to the Department's determination of when the continuation became imprudent, in terms of financeability, to continue the Pilgrim II project.87 In view of the statutory constraints on judicial review of the Department, the court's deference in this area could have been predicted. Thus, the only remaining question was whether the Department committed an error of law when it allowed any recovery on the Pilgrim II

82. See Mass. Gen. Laws Ann. ch. 164, § 94 (West 1976); Mass. Gen. Laws Ann. ch. 30A, § 14 (West 1979). When examined in light of each other, the two statutes support the court's premises that (1) the Department possesses the authority to use policy to define "operating costs" and (2) the court is limited in its review of the Department's determination and must give deference to agency policy-making. Contra 390 Mass. at 241-43, 455 N.E.2d at 432 (Liacos, J., dissenting).


87. 390 Mass. at 228, 455 N.E.2d at 425.
investment. 88

2. The Importance of the Statutory Scheme

Regulatory agencies are creatures of state legislative action. Statutes create them and enumerate their powers. 89 Authorizing statutes that have very broad language, however, delegate policy-making authority to the regulatory agencies. 90 In Massachusetts, the legislature has given the Department broad authority to approve or modify proposed increases in rates in accordance with its determination of the "public interest." The only affirmative requirements placed on the Department are procedural. When a company proposes any increase, the Department must hold a public hearing and notify the Attorney General. 91 Conspicuously, the statute does not mention the ratemaking concepts nor parameters by which the Department might be limited in considering the inclusion of any company expense. 92 The...
statutory scheme permitted the court to conclude that the legislature had delegated to the Department the policy decision of whether to include abandonment losses as a cost of public utility operations.\textsuperscript{93}

The statutory underpinnings\textsuperscript{94} of the outcome in \textit{Attorney General} are even more apparent when compared to another judicial decision\textsuperscript{95} on the allowance of nuclear plant abandonment losses. In \textit{Office retroactively a previously ordered rate. See, e.g., Boston Edison Co. v. Department of Pub. Util., 375 Mass. 1, 4-6, 375 N.E.2d 305, 311-12 (1978), cert. denied, 439 U.S. 921 (1978); City of Newton v. Department of Pub. Util., 367 Mass. 667, 679-80, 328 N.E.2d 885, 892-93 (1975). Furthermore, if non-retroactivity were not restricted to its purposes, then the rule would destroy the test year method of determining just and reasonable rates. The test year method considers adequacy of past revenues when determining future rates. See \textit{supra} note 27 and accompanying text.


Despite the supreme judicial court’s assertion that it has always deferred to the Department in areas of policymaking, the court in \textit{New England Tel. and Tel. Co. v. Department of Pub. Util.} overruled the Department’s disallowance of some charitable contributions which was based on the policy that they did not benefit the ratepayers. See \textit{New England Tel. and Tel. Co. v. Department of Pub. Util., 360 Mass. 443, 485, 275 N.E.2d 493, 518 (1971). See also \textit{supra} note 29 (recent Massachusetts legislation apparently overruling the court’s decision in \textit{New England Tel. and Tel. Co.} on the legitimacy of recovery of certain advertising expenditures). But see \textit{West Ohio Gas Co. v. Public Util. Comm’n of Ohio, 294 U.S. 63, 70 (1935).}

The last bastion of potential judicial interference in favor of ratepayers seems to be the court’s requirement that the Department apply its policies and practices in a consistent manner. 390 Mass. at 222, 455 N.E.2d at 422. Compare \textit{Boston Edison Co. v. Department of Pub. Util., 375 Mass. 1, 20-21, 375 N.E.2d 305, 319 (1978)} (using the consistency rule to favor the company), cert. denied, 439 U.S. 921 (1978). \textit{Attorney General} itself, however, illustrates an inconsistency between the Department’s practice of denying recovery of capital expenditures until a project is completed, 390 Mass. at 219, 455 N.E.2d at 420; see \textit{New England Tel. and Tel. Co. v. Department of Pub. Util., 360 Mass. 443, 454-56, 275 N.E.2d 493, 501 (1971)}, and its practice of allowing recovery of prudent capital expenditures in an abandoned project. 390 Mass. at 217, 455 N.E.2d at 419. The judicially sanctioned inconsistency shows that the Department may not always mean what it says in public utility ratemaking. Instead of the flat regulatory policy of non-recovery until completion, the court has clarified the Department’s practice as no recovery until completion unless the project will never be completed.

The two situations may be distinguished on three grounds. First, if the project is abandoned, then the company must risk a regulatory determination that the company was imprudent in some or all of its expenditures. See \textit{In Re Boston Edison Co., 46 Pub. Util. Rep. 4th (PUR) 431, 435, 437-38 (Mass. Dep’t of Pub. Util. 1982)}. Second, the equitable theory that present ratepayers should not be compelled to pay the costs of future service disappears when any possibility of completion evaporates. See \textit{supra} note 13. Third, if the expenditures were recovered at the time they were made then methods of depreciation and the determination of the return allowed with reference to the rate base (plant used and useful minus depreciation allowed) would have to be dismantled.


Recently, the Supreme Court of New Hampshire responded to the state regulatory agency’s question on its authority to allow recovery of Public Service Company of New Hampshire’s Pilgrim II losses. \textit{Appeal of Public Serv. Co. of N.H., — N.H. —}, 480
of Consumer's Counsel v. Public Utilities Commission of Ohio, the Ohio Supreme Court reversed the public utility commission's decision to allow amortization of abandonment losses incurred by the Cleveland Electric Illuminating Company. The facts are almost identical to Attorney General. The Public Utilities Commission determined that the decisions to undertake the project as well as to cancel it were prudent. In Ohio, however, the statute incorporates the orthodox ratemaking formula and concepts. More specifically, the statute defines "operating costs" as the "cost to the utility of rendering the public utility service for the test period . . . ." Since the object of the investment sought to be recovered, the four abandoned nuclear projects, would never render service, the Ohio Supreme Court concluded that the statute precluded a policy-based decision that any abandonment costs fit within the category of operating costs. Thus, the statutory bar against allocating abandonment costs precluded the commission from considering both the balance between the consumer

97. Id. at 168, 423 N.E.2d at 829.
98. Id. at 154, 423 N.E.2d at 821-22. In 1973, Cleveland Electric Illuminating Company (CEI) joined four other companies to construct four nuclear power plants because of a forecasted rise in future demand for electricity. The anticipated demand never developed. In January, 1980, the companies cancelled all four units. CEI asserted as causes licensing delays and the more stringent planning requirements following the Three Mile Island accident making the cost of completion too high. Id. at 53-54, 423 N.E.2d at 821.
99. Id. at 162, 423 N.E.2d at 826. The Commission noted that the best data available justified the decision to construct the four units. It also concluded that the decision to terminate was reasonable because of the "intervening decline in the growth [of demand for electricity] and the uncertainties which now attend the construction of nuclear units." Id.
100. See supra notes 24-36 and accompanying text.
103. See supra note 99 and accompanying text.
104. 67 Ohio St. 2d at 166-67, 423 N.E.2d at 828-29.
and the investor interests\textsuperscript{105} and the effect of non-recovery on the company’s ability to provide service.\textsuperscript{106}

A comparison of the Ohio decision with \textit{Attorney General} shows that the extent of the regulatory agency’s policy-making authority determines whether ratepayers may\textsuperscript{107} be directly charged with abandonment losses. The loose statutory scheme in Massachusetts is preferable because it is more consistent with the legal obligation placed on the company to provide adequate service at reasonable rates.\textsuperscript{108} By allowing the department to draw the line of recovery at the company’s imprudent actions, the regulatory agency can support the utility in its prudent endeavors to provide adequate and more efficient service. In contrast, the Ohio model may preclude the electric company from responding to the realities of the public utility business.\textsuperscript{109}

C. Implications

The broad statutory authority given to the Department \textsuperscript{110} and defensible public policy rationales\textsuperscript{111} justify the decisions of the Department and the supreme judicial court. In present times, a statutory scheme that authorizes the Department to balance consumer and investor interests in each case serves better than a rigid statutory mandate by defining ratemaking.\textsuperscript{112} Problems exist, however, under the Massachusetts statutory scheme. \textit{Attorney General} may result in a reflection of imprudent costs of abandonment in the rates even though

\textsuperscript{105} See supra notes 24-25 and accompanying text. See also infra note 109 and accompanying text.

\textsuperscript{106} In a concurring opinion, however, Justice Locher noted that the losses sustained by the company were not significant and could not reasonably be expected to impair the company’s ability to render service. 67 Ohio St. 2d at 171, 423 N.E.2d at 831 (Locher, J., concurring in part, dissenting in part). Compare Attorney Gen. v. Department of Pub. Util., 390 Mass. at 243-44, 455 N.E.2d at 433 (Liacos, J., dissenting).

\textsuperscript{107} Of course, even if the regulatory agency operates under a loose statutory scheme, it may deny all the abandonment costs. Its decision may be based either on a determination that the company imprudently initiated the project, see Attorney General, 390 Mass. at 229 n.16, 455 N.E.2d at 425 n.16., or on a policy decision that it is unfair to charge ratepayers for investments which unforeseeably go awry before completion. See \textit{In Re Pacific Power & Light Co.}, UTIL. L. REP. (CCH) ¶ 23,974 (Mont. Pub. Serv. Comm’n Apr. 19, 1983).

\textsuperscript{108} See supra notes 20-21 and accompanying text.

\textsuperscript{109} The law places an obligation on the public utility to provide adequate service regardless of events such as the 1973 oil embargo and its aftermath. If the company cannot respond to events by building facilities that employ new sources of energy, then the service obligation will not be met. See Stewart, supra note 50, at 15-17.

\textsuperscript{110} See supra notes 83-93 and accompanying text.

\textsuperscript{111} See supra notes 66-80 and accompanying text.

\textsuperscript{112} See supra note 111 and accompanying text.
the agency officially placed them on the company.113 According to the rate of return analysis, the cost of attracting investment monies constitutes a major consideration in determining the appropriate rate of return.114 In Attorney General, the investors were not fully compensated for the risk of cancellation because they had to bear the costs of the company's imprudent decision to continue the Pilgrim II project past July 1980.115 Thus, future investors will demand a higher return on their investment because they now know they will be held responsible for management's imprudent decisions. In turn, the company will propose an increase in its rate of return claiming higher capital costs. Unless the Department recognizes the source of the claim, it may unwittingly allow the increase.116 A portion of the imprudently incurred costs may then flow through to ratepayers.

Recently, disallowed costs of an abandoned nuclear unit have, in the manner described above, indirectly fallen upon consumers in Ohio. On April 13, 1983, the Ohio Supreme Court affirmed the Ohio Public Utility Commission's (PUC) decision to increase Cleveland Electric Illuminating Company's (CEI) rate of return from 17.02 to 17.30 percent.117 The PUC based its approval in part on an increase in CEI's increased cost of capital.118 The PUC noted that CEI's cost of capital had risen during the test year because of an "increase in investors'  

113. See Allison, supra note 64, at 286.
114. 1 A. PRIEST, supra note 19, at 199-202. See supra note 35 and accompanying text.
116. See Allison, supra note 64, at 298. Although the increased financing costs are less than the amount invested and lost, the regulatory agency's allowance of an increase in the rate of return under this scenario permits a permanent increase in the company's revenue requirement. See supra notes 26-36 and accompanying text.
118. Id.
perceived risk" following the Ohio Supreme Court's decision to disallow the cost of four abandoned nuclear units. The Ohio Supreme Court acknowledged that, although the abandonment losses could not be characterized as operating expenses under Ohio law, the PUC could increase the company's rate of return based upon a factual finding of higher capital costs in reality produced by the non-recovery of the losses. The statutory bar against recovery for an investment that never rendered service, therefore, was ineffective in protecting the ratepayers. The same result may occur in the aftermath of Attorney General with respect to imprudently incurred costs of abandonment.

Massachusetts now has legislation which moves toward preventing imprudent expenditures on a power plant that will never go into service. The particular legislation establishes an Energy Facility Siting Council (EFSC). It provides that, once every five years, each electric company must submit a long-range forecast predicting the needs of its service area and describing its plans to meet the demand, including construction of new facilities. In addition, the company must update its forecast with an annual supplemental report embracing any construction plans not embodied in previous forecasts. The agency may then approve or reject the long-range forecasts and any supplements. The electric utility need not present evidence of its ability to finance the inspection or completion of any projects. Furthermore, once the EFSC approves an initial plan for construction, its sanction for continuation of the project is not necessary. Under the statutory framework, a state regulatory agency assumes a supervisory role over the company's initial determination of the "convenience and public necessity" of a proposed nuclear power plant and ongoing assessment of its service area needs. The scheme at a minimum requires agency approval of plans to initiate a project and, therefore, evidences

119. Id. at 114, 447 N.E.2d at 753.
120. Id. See supra notes 96-106 and accompanying text.
122. MASS. GEN. LAWS ANN. ch. 164, § 69H (West 1976 & West Supp. 1984). The statute grants the EFSC the authority to oversee the public necessity and environmental aspects of an electric company's decision to add a new plant as well as to evaluate the adequacy of current service. Id.
125. See Allison, supra note 64, at 286-98.
a greater ability to prevent imprudent costs.\textsuperscript{126}

Although the statute grants an early supervisory role over all projects planned after 1976,\textsuperscript{127} determination of forecasted need may not suffice to eliminate imprudent decisions especially concerning nuclear power facilities. Public utility managers have an economic incentive to prolong nuclear plant investment beyond the date of imprudency in terms of ability to finance the project and \textit{continuing} need for the additional capacity. In general, the construction of a nuclear power plant is capital intensive;\textsuperscript{128} that is, huge amounts must be invested to construct the facility. Once it comes on line, however, the operating expenses are lower as compared to facilities which use other sources of energy.\textsuperscript{129} Utility managers look with favor upon nuclear projects and may, therefore, continue to pursue completion imprudently because the large capital costs will be included in their rate base from which their profit will be computed. Thus, they achieve a greater profit by undertaking and continuing, at all costs, a project which will add relatively more to their rate base than other projects for which construction is cheaper but operating expenses are higher.\textsuperscript{130} As \textit{Attorney General} illustrates, the need for the facility\textsuperscript{131} at or near its initiation may not be dispositive of the prudence of its construction. Prior to \textit{Attorney General} and the rate case which gave rise to it, the Department did investigate the need for Pilgrim II. It refused, however, to

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  \item \textsuperscript{126} \textit{Id.}
  \item \textsuperscript{127} See supra note 126.
  \item \textsuperscript{128} E. BERLIN, \textit{supra} note 59, at xiii.
  \item \textsuperscript{129} Allison, \textit{supra} note 64, at 266.
  \item \textsuperscript{130} W. CAPRON, \textit{TECHNOLOGICAL CHANGE IN REGULATED INDUSTRIES} 4-5 (1971).
  \item \textsuperscript{131} The necessity of the facility, as determined in \textit{Attorney General} and under the EFSC, rests on whether the plant should be added in response to higher demand, lack of sufficient reserve capacity, or displacement of oil as a resource. See \textit{In Re Boston Edison Co.}, 46 Pub. Util. Rep. 4th (PUR) 431, 433 (Mass. Dep't of Pub. Util. 1982); \textit{Mass. GEN. LAWS ANN.} ch. 164, §§ 69I-J (West Supp. 1984).
\end{itemize}
examine the company's ability to finance the project.\textsuperscript{132} Later, the Department drew the line of imprudency earlier than the actual cancellation date even though the need for the facility may have continued.\textsuperscript{133} Thus, the sole cause of the imprudently incurred costs seems to have been the company's disregard in June, 1980, of the intolerably high risk that it would not be able to complete the project.\textsuperscript{134} Consequently, the legal system must force the company to become more realistic in its overall decisions concerning continuation of a nuclear power plant project.

In light of the incentive to continue a nuclear plant project beyond the point when it becomes imprudent and the realistic potential that imprudent expenditures will eventually be charged to ratepayers, the legislature should give the EFSC the power to examine periodically the company's ability to finance construction during the life of any nuclear plant project which it approves. Presently, the statute grants the EFSC such authority over any oil company\textsuperscript{135} planning to build a new oil facility at its initiation.\textsuperscript{136} Since the EFSC is a separate agency unburdened with the ratemaking tasks of the Department, proposed \textit{and} ongoing nuclear plant projects should be made subject to the same type of scrutiny as oil facilities. The massive amounts of money required to build nuclear facilities justifies the intrusion of the EFSC assuming a periodic supervisory role during the project.\textsuperscript{137}

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\item \textsuperscript{132} \textit{In Re} Boston Edison Co., 46 Pub. Util. Rep. 4th (PUR) 431, 436-37 (Mass. Dep't of Pub. Util. 1982). \textit{See supra} note 71 and accompanying text. Subsequently, the supreme judicial court acknowledged as appropriate the Department's restriction of its scope of analysis during the life of the project as to the need and the relative cost of the facilities. The court based its conclusion on the judicially created presumption of management's good faith in making decisions regarding the financeability of the project. 390 Mass. at 229, 455 N.E.2d at 428.


\item \textsuperscript{137} \textit{See supra} notes 113-121 \& 128-134 and accompanying text. Periodic supervision, if granted by legislation, would not be in violation of any Constitutional provision. In Interstate Commerce Comm'n v. Chicago Great W. Ry. Co., 209 U.S. 108 (1908), the United States Supreme Court reviewed the Interstate Commerce Commission's (ICC) order preventing Great Western from raising its rates for a specified class of freight customers. \textit{Id.} at 108-09. The Court reversed the ICC's order based partly on ICC's lack of authority to substitute its judgment for that of the company's managers. \textit{Id.} at 118-23. Justice Brewer, writing for the Court, however, implied that the presumption of lawful and right action by the company might be "overthrown by any legislation in respect to common carriers." \textit{Id.} at 120. Furthermore, the Court has recently stated that "Congress has left sufficient authority in the States to allow the development of nuclear power to be slowed or
\end{itemize}
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IV. CONCLUSION

In recent years, a variety of different methods have developed to deal with the problem presented by the cancellation of nuclear power plant projects. Each approach has its own implications for the concerns of the ratepayers and the investors. The treatment may depend on a wide range of legal and economic concepts which inhere in the privately managed, publicly regulated utility industry. The statutory model of regulatory control in each state may tip the balance between partial or total recovery and disallowance of any recoupment. The inconsistency, however, between disallowance of prudently incurred costs of providing service and the legal mandate that the utility furnish adequate service at the lowest cost is apparent. On the other hand, an examination of management decisions regarding the initiation and continuation of a nuclear power plant project after the company has undertaken imprudent costs may not eliminate the flow-through of a portion of these losses to the ratepayer, even though investors are officially charged with them. Only legislation can prevent such a result. The model of regulatory control over nuclear projects must be revised. In nuclear power plant construction, price control is illusory if not coupled with supervisory authority during the life of the project. While some may balk at governmental examination of the management affairs of the utility, periodic supervision over nuclear plant construction would be advantageous. The prevention of imprudent costs would end the problem created by the conflict between encouraging efficient service and the indirect flow through of imprudent costs to ratepayers.

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138. See supra notes 37-60 & 94-106 and accompanying text.