

Arent Fox Kinney Plotkin & Kahn

David J. Bardin
202/857-6089

April 1, 1991

VIA HAND DELIVERY

Anthony T. Gody, Chief
Policy Development and Technical Support Branch
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Public Service Company of New Hampshire, Docket No. 50-443
COMMENTS OF CITY OF HOLYOKE GAS & ELECTRIC
DEPARTMENT ON ANTITRUST ISSUES

Dear Mr. Gody:

The City of Holyoke Gas & Electric Department ("HG&E"),^{1/} in accordance with the request of the Nuclear Regulatory Commission ("Commission") for public comments on antitrust issues in the above-referenced proceeding, 56 Fed. Reg. 8373 (Feb. 28, 1991), hereby submits its comments on the antitrust issues raised by the proposed merger between Public Service Company of New Hampshire ("PSNH") and Northeast Utilities ("NU") (collectively "Applicants").^{2/} An "integral part" of the proposed merger is Applicants' request that the Commission amend the Seabrook Station Unit No. 1 ("Seabrook") operating license to allow PSNH to transfer its ownership interest in Seabrook to North Atlantic Energy Corporation ("NAEC"), a newly-created entity wholly-owned by NU.

1050 Connecticut Avenue, NW
Washington, DC 20036-5339

Telephone: 202/857-6000
Cable: ARFOX
Telex: WU 892672
ITT 440266
Facsimile: 202/857-6395

7475 Wisconsin Avenue
Bethesda, Maryland 20814-3413

8000 Towers Crescent Drive
Vienna, Virginia 22182-2733

^{1/} HG&E hereby supports and incorporates herein the Comments being filed with the Commission today by the Massachusetts Municipal Wholesale Electric Cooperative, of which HG&E is a member.

^{2/} HG&E requests that it be served with copies of filings by other parties in this proceeding, and that it be added to the Commission's official service list.

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HG&E is a municipally-owned electric utility in western Massachusetts encompassed entirely within territory served by the NU system.^{3/} HG&E competes on a direct, head-to-head basis with an unregulated NU subsidiary, Holyoke Water Power Company ("HWP"), for retail industrial sales within the City of Holyoke. NU has, therefore, an extra competitive interest to disadvantage HG&E, increase its costs, and weaken its retail competitive posture -- an interest not shared by an independent PSNH. However, HG&E, which generates virtually no power of its own, depends on PSNH for transmission of economical nuclear power from Point Lepreau, in New Brunswick, Canada. The Point Lepreau nuclear power transmitted by PSNH is HG&E's largest resource, accounting for over 36% of HG&E's total energy supply. HG&E's transmission contract with PSNH expires in 1994, and NU has indicated that it plans to reallocate such PSNH capacity at that time, cutting off HG&E's "grandfather" rights as to that vital import. HG&E is now negotiating for an extension of its Point Lepreau power supply -- slightly over 12 megawatts. NU's plans would virtually eliminate HG&E's present access to its largest source of power, relegating HG&E to a fractional share of that essential transmission capacity under the New Hampshire Corridor Plan and, at best, the hope of new transmission construction at far more onerous terms (when, as and if it is really constructed -- hardly a basis on which HG&E can rely for 36-37% of its energy needs.

An independent PSNH would have no incentive to use its Point Lepreau transmission to advance NU's retail competition with HG&E.

^{3/} HG&E lies within the service territory of Western Massachusetts Electric Company ("WMECO"), a wholly-owned subsidiary of NU.

However, a PSNH controlled by NU would have that incentive and the merger would give NU a new means to advance its retail competitive position to the injury of HG&E. As explained below, the proposed acquisition of PSNH would give NU control over surplus generation and transmission capacity in New England, thereby combining NU's present incentive to disadvantage HG&E with the increased power to do so.

The increase in control that the merged entity will exercise over generation (including power from Seabrook) and transmission capacity in New England represents a "significant change" from the activities of the current licensee -- an independent PSNH. With the addition of NU's retail operations and the incentive to disadvantage HG&E the changes become even more significant. In accordance with Section 137c of the Atomic Energy Act of 1954 (the "Act"), 42 U.S.C. § 2135(c), the Commission should initiate a full review of the antitrust impacts of the proposed merger and, following such review, deny the proposed transfer or, at a minimum, condition the proposed transfer as recommended below.^{4/}

To assist the Commission in examining the antitrust issues raised by the proposed merger, HG&E is lodging herewith copies of the following documents:

1. Direct testimony of Robert J. Reynolds, former senior economist with the Department of Justice's ("DOJ") Antitrust Division; George E. Leary; and Roger C. Allen, each filed by HG&E with the Federal Energy Regulatory Commission ("FERC") in Dkt. No. EC90-10, the proceeding to review the proposed NU/PSNH merger. Applicants waived their right to cross-examine these witnesses in that proceeding.

^{4/} Such review would include an analysis by the Attorney General of the antitrust impact of the proposed license transfer. 42 U.S.C. § 2135.

2. Brief of the City of Holyoke Gas & Electric Department on Exceptions to the Initial Decision of the FERC administrative law judge ("ALJ") in Dkt. No. EC90-10.^{5/}
3. Brief of the City of Holyoke Gas & Electric Department Opposing Exceptions to the Initial Decision of the FERC ALJ in Dkt. No. EC90-10.
4. Motion Requesting Limited Oral Argument before the Commission of City of Holyoke Gas & Electric Department, New Hampshire Electric Cooperative and MACT Towns, filed with FERC in Dkt. No. EC90-10.
5. Supplemental Memorandum Opinion and Order Authorizing Acquisition of Public Service Company of New Hampshire and Related Financings, Granting Requests for Reconsideration; Denying Requests for an Evidentiary Hearing ("Reconsideration Order"), issued by the Securities and Exchange Commission ("SEC") on March 15, 1991 in Docket No. 70-7695.^{6/}

I. SIGNIFICANT CHANGES IN LICENSEE'S ACTIVITIES

Applicants argue that the Commission need not examine the antitrust impacts of NU's acquisition of PSNH because the merger would result in "no significant change" in entitlements to power from Seabrook Station.^{7/} On this basis, NU provides neither the data identified in Part 50 Appendix L nor the data identified in the Commission's Regulatory Guide 9.3.

^{5/} A copy of the FERC ALJ's Initial Decision was filed with this Commission as part of NU's Application Supplement filed January 14, 1991.

^{6/} A copy of the SEC's Memorandum Opinion and Order Authorizing Acquisition of Public Service Company of New Hampshire and Related Financings; Exception from Competitive Bidding; Reserving Jurisdiction; Denying Requests for Hearing, issued December 21, 1990 in Dkt. No. 70-7695, was filed with the Commission as part of NU's Application Supplement on January 14, 1991.

^{7/} Application to Amend Facility Operating License No. NPF-86 to Authorize North Atlantic Energy Corporation as a Licensee to Acquire and Possess the Public Service Company of New Hampshire Ownership Interest in Seabrook ("Application") at 8-9 (Nov. 13, 1990).

Applicant's attempt to brush aside any antitrust review by the Commission ignores the very significant changes in the New England power market that would be caused by NU's acquisition of PSNH.^{8/} Control over surplus generation and transmission resources by a single utility system is a serious real-world problem for HG&E and other utilities that rely on purchased power to meet their load demands. The evidence submitted on the record before FERC demonstrates that approval of the merger would give NU/PSNH control over both generation and transmission in New England, with serious anticompetitive consequences for the entire region. Dr. Reynolds, in unimpeached testimony before FERC, warned that:

...NU's acquisition of PSNH will give the merged firm an overwhelming share of the forecast surplus capacity held by NEPOOL member utilities during the 1990s; and it eliminates, as an independent source of bulk power one of a small number of firms that can be relied on to supply short-run wholesale generating capacity to other New England utilities over much of the next decade.^{9/}

The Presiding ALJ in the FERC proceeding found that the proposed merger would "combin[e] into one entity control over the single largest source of surplus capacity in New England with control over key

^{8/} Applicants' claim that there would be "no significant change of entitlement" as a result of the license transfer ignores the obvious fact that NU will obtain control over PSNH's entitlement to Seabrook power. Indeed, applicants admit that the license transfer is an "integral part" of NU's acquisition of PSNH. Letter of Ted C. Feigenbaum, President and Chief Executive Officer, New Hampshire Yankee Division of PSNH, to the Commission, re: Docket No. 50-443 (transmittal letter accompanying Application) at 1 (Nov. 13, 1990). See also Alabama Power v. NRC, 692 F.2d 1362, 1367-68 (1982), reh. denied 698 F.2d 1238 (1983), cert. denied 464 U.S. 816 (Section 105c of the Act does not limit Commission antitrust review to the narrow activity for which the applicant seeks a license; "The statute clearly calls for a broad inquiry and common sense does not allow interpretations to the contrary.").

^{9/} Prepared Direct Testimony of Robert J. Reynolds, Dkt. EC90-10 at 6 (a copy of which is supplied herewith).

transmission facilities necessary to provide access to alternative sources of bulk power in the region":^{10/}

Because PSNH "controls the only transmission lines linking Maine and New Brunswick to the rest of New England", [certain] utilities will necessarily have to deal with the merged company in order to get power from those areas. The merged company's control would also extend to access from New York.... When this capacity is taken together with the New Hampshire lines, the merged company will control some 92% of the capacity available for transmission to New England....

This control would give the merged company the power to demand excessive charges for transmission, or to deny it altogether, while favoring its own excess generation at high prices. That the merged company could use its power to force its own extra goods on buyers elsewhere is an especially significant concern because NU/PSNH will have the largest block of surplus capacity in New England.

....[N]orthern sellers will need to break through the NU-PSNH stronghold in order to get their power to southern New England buyers. The merger, with its resulting transmission "curtain," cuts the regions off from each other.^{11/}

The ALJ's findings, together with the testimony of Dr. Reynolds and others, eliminates any question as to the "significance" of the increased control that would result from transfer of control of PSNH's Seabrook license to NU. Control over generation capacity greatly reduces the opportunities available to purchase power from other utilities in the region; control over transmission capacity eliminates or reduces the ability of HG&E and others to purchase power from utilities outside of New England. Taken together, the result is a "take it or leave it" situation in which a merged NU/PSNH can force others to purchase excess capacity

^{10/} Initial Decision, FERC Dkt. No. EC90-10, at 15 (Dec. 20, 1990).

^{11/} Id. at 15-17 (citations omitted; emphasis supplied).

from Seabrook and other NU/PSNH sources at prices above those charged by a competitive market.

The anticompetitive danger caused by the amalgamation of so much market power by itself warrants Commission review. However, the danger of anticompetitive conduct by a merged NU/PSNH is greatly exacerbated by NU's existing incentive to disadvantage HG&E.^{12/} The incentive to competitively injure HG&E to the benefit of NU's own subsidiary HWP, together with NU's increased ability to do so by gaining control over PSNH's transmission lines and its interest in Seabrook, creates more than a "reasonable probability" that the merged company can and will engage in anticompetitive actions against HG&E and others in New England.^{13/} The Commission should therefore review the antitrust implications of the proposed merger and thereafter either deny the requested license transfer or, at a minimum, condition the transfer as set forth below.^{14/}

^{12/} NU has repeatedly used its existing market power to impair HG&E's ability to compete with HWP, and there is every reason to believe that NU will exercise the increased market power that it will gain from the merger to the same effect. The testimony of Messrs. Leary and Allen, copies of which are supplied herewith, detail NU's past -- and ongoing -- efforts to block HG&E's access to reliable, economic sources of power.

^{13/} Alabama Power Co., 692 F.2d at 1368-69.

^{14/} In certain prior antitrust reviews involving licenses for nuclear facilities in New England, the Attorney General has opined that no antitrust hearing was required on the grounds that there was "dramatic improvement in the relations among the various segments of the electric power industry in New England following the formation of NEPOOL and the associated settlement agreement." Northeast Nuclear Energy Co., et al., Notice of Finding of No Significant Antitrust Changes and Time for Filing Requests for Reevaluation, Dkt. No. 50-423A, Rel. 7590-01 (Aug. 30, 1985) at 4. The proposed NU/PSNH merger would greatly undercut the ability of NEPOOL to improve relations among utilities, however, by giving the merged company sufficient voting power to veto any action of the NEPOOL Management Committee. Thus the merger, if approved, would

(continued...)

II. RELATIONSHIP TO PROCEEDINGS BEFORE FERC AND OTHER FEDERAL AGENCIES

It is not sufficient for the Commission to assume that FERC will adequately condition the proposed merger to remedy the serious competitive issues that the merger would create. The FERC ALJ's Initial Decision, although it correctly found that the merger would give the merged company control over "the largest source of surplus capacity" (i.e., Seabrook) and "92% of the capacity available for transmission to New England,"^{15/} failed to address adequately the impact on HG&E that would result from combining such control with NU's existing incentive to block HG&E's access to reliable, economic power sources. The Commission cannot assume that FERC will correct this deficiency.

Moreover, unlike FERC, which is given a "public interest" standard to apply, the Commission was expressly directed by Congress to ensure compliance by nuclear licensees with antitrust laws, and to condition licenses as necessary to achieve that objective. Congress' mandate that the Commission find that a licensee's activities would not "create or maintain a situation inconsistent with the antitrust laws" requires that the Commission deny or condition a license if there is a mere "reasonable probability" of a violation of the antitrust laws:

This command may result in the conditioning of licenses in anticipation of situations which would not, if left to fruition, in fact violate any antitrust law. But Congress intended this broad inquiry

^{14/}(...continued)

actually eliminate many of the benefits that the Attorney General found improved the competitive environment in New England.

^{15/} Initial Decision at 15-16.

using all available information to prevent infringement on the antitrust laws in the nuclear power field.

Alabama Power Co., 692 F.2d at 1365. The Commission cannot abdicate its responsibility by deferring entirely to the FERC. It may use the FERC record, but it must take its own fresh look at the facts and apply the statutory standard prescribed by the Act.^{16/}

Applicants attempt to prove too much by claiming that their proposed merger has "been reviewed" by the DOJ and the Federal Trade Commission ("FTC") "without any objections being raised."^{17/} A Hart-Scott-Rodino filing of a proposed merger is an informational filing only. Lack of a response or objection by DOJ or the FTC does not imply any approval of the proposed merger whatsoever, particularly where, as here, other agencies will be responsible for review of anticompetitive impacts.

III. APPROPRIATE REMEDY

HG&E urges the Commission to deny the proposed merger. In the alternative, the Commission should condition approval of the proposed license transfer upon NU and PSNH obtaining prior approval of the

^{16/} In its Reconsideration Order, a copy of which is supplied herewith, the SEC defers to the pending FERC decision on competition issues. The SEC's decision is currently the subject of an appeal before the U.S. Court of Appeals for the District of Columbia Circuit. (See Nos. 91-1001 and 91-1132, filed, respectively, January 4 and March 189, 1991.) Even assuming that the SEC properly deferred to FERC, it must be observed that the Public Utility Holding Company Act of 1935, 15 U.S.C. § 79 et seq., which governs the SEC's review in this matter, does not include the express requirement that the SEC ensure that the merger would not "create or maintain a situation inconsistent with the antitrust laws" -- a burden that is uniquely imposed by Congress on this Commission (which is to be resolved with the assistance of the Attorney General). 42 U.S.C. § 2135(c)(5).

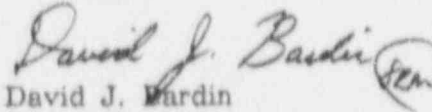
^{17/} Application at 9.

proposed merger by FERC and the SEC, satisfying all conditions imposed by those commissions, and fulfilling the following additional conditions:

1. The merged PSNH/NU shall continue to transmit Pt. Lepreau power to HG&E for so long as HG&E may extend its contract with New Brunswick to purchase Pt. Lepreau power, out of NU/PSNH's share of the New Hampshire Corridor Plan "grandfather" capacity, and it shall provide transmission capacity on terms equivalent to those in HG&E's current contract with PSNH.
2. Because structural change is necessary in order to eliminate NU's incentive to impose anticompetitive injury on HG&E, approval of the license transfer should be conditioned on NU divesting itself of HWP's retail business. At a minimum, NU should be compelled to consolidate HWP into WMECO, NU's other operating company in Massachusetts. This would subject

HWP to state regulation as a public utility, thereby offering
HG&E some protection against NU's abusive and anticompetitive
practices involving HWP.

Respectfully submitted,



David J. Warden
Steven R. Miles

Arent, Fox, Kintner, Plotkin & Kahn
1050 Connecticut Ave., N.W.
Washington, D.C. 20036-5339
(202) 857-6089

Attorneys for the City of Holyoke
Gas & Electric Department

Enclosures

cc: Gordon Edison, Senior Project Manager, Project Directorate I-3,
Division of Reactor Projects-I/II, NRC Office of Nuclear Reactor
Regulation
Joseph Rutberg, NRC Deputy Assistant General Counsel
Ted C. Feigenbaum, President and Chief Executive Officer,
New Hampshire Yankee Division of PSNH
John A. Ritscher, Esq.
NRC Document Control Desk

INDEX OF DOCUMENTS BEING LODGED WITH NRC

1. Direct Testimony of Robert J. Reynolds, FERC Docket No. EC90-10-000, et al, submitted on behalf of the City of Holyoke Gas & Electric Department.
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Attachment 1

AMERICA

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northeast Utilities Service)
Company) Docket No. EC90-10-000, et. al.
(Re Public Service Co.)
of New Hampshire)

PREPARED DIRECT TESTIMONY OF
ROBERT J. REYNOLDS

I. INTRODUCTION AND SUMMARY

Q. Please state your name, business address and qualifications.

A. My name is Robert J. Reynolds and my business address is 1850 K Street, N.W., Washington, D.C. 20006. I am a senior vice president of ICF Consulting Associates, Inc. I received my Ph.D. in economics from Northwestern University. My primary area of specialization has been in microeconomics, particularly as applied to industrial organization, antitrust and regulation. In addition to my teaching and research in these fields (at the Universities of Idaho, California, and Cornell), these were my principal areas of focus both at the Antitrust Division of the U.S. Department of Justice and at ICF. With the Antitrust Division, I was extensively involved in examination of antitrust and regulatory problems, including substantial work in energy-related industries. Similarly, the preponderance of the economic consulting work I have done since leaving DOJ has been related to antitrust and regulatory problems for both private and government agencies. A more detailed

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1 presentation of my experience appears in Exhibit No. 521 (RJR-2).

2 Q. What is the purpose of your testimony?

3 A. I have been retained by intervenors Boston Edison Company ("BECO"),
4 Commonwealth Electric Company, Cambridge Electric Light Company, and Canal
5 Electric Company (collectively, "Com/Electric"), Montaup Electric Company
6 ("Montaup"), the City of Holyoke Gas And Electric Department ("HOG&E"), and
7 the New England Cogeneration Association ("NECA") to assess the
8 competitive effects of Northeast Utilities⁴¹ ("NU") acquisition of Public
9 Service of New Hampshire ("PSNH").

10 Q. Would you please summarize your conclusions?

11 A. My analysis of the proposed merger indicates that it increases the ability
12 and incentive of the merged firm (NU/PSNH) to raise significantly the
13 price of delivered bulk power or generating capacity in much of New
14 England, and especially in Rhode Island and Eastern Massachusetts
15 (hereafter, Eastern REMVEC).

16 First, in the likely event that Seabrook enters service, the
17 consolidation will eliminate PSNH as an important independent seller of
18 bulk power and will increase substantially the concentration of expected
19 surplus generating capacity in New England over the next five years. The
20 proposed merger also consolidates control over transmission between parts
21 of New England and generating resources both inside and outside of New
22 England. This gives the merged firm a greater incentive to restrict
23 imports of bulk power to the extent that those imports would constrain the
24 delivered price that NU/PSNH would receive for its surplus generating
25 capacity. Therefore, the merger creates a real risk that the price of
26 short-term contracts for delivered bulk power will be higher than they

1 otherwise would be. This risk is greatest before 1996, or during the
2 period when the merging companies would otherwise each have held
3 significant expected surplus generating capacity. However, continuing
4 into the late 1990s, NU by itself is expected to hold surplus generating
5 capacity. Hence, the consolidation of transmission capacity creates a
6 continuing risk that the merged company will restrict transmission
7 capacity to raise the delivered price of short-term bulk power.

8 Second, the proposed merger also creates a risk that the price of long
9 term bulk power to utilities in Eastern REMVEC will rise. As explained in
10 the testimony, under certain conditions a firm with control over
11 transmission has incentives to restrict transmission capacity or access
12 either to sell its own generating capacity or to profit by brokering power
13 sales.

14 Apart from NU/PSNH's ability to raise bulk power prices, the
15 consolidation also will cause a large transfer of income from other New
16 England utilities and their ratepayers to the merged firms and their
17 ratepayers. This transfer occurs because, under NEPOOL rules for
18 determining capability responsibility and "own load" dispatch, the merged
19 firm can capture for itself pooling benefits that NEPOOL currently
20 realizes and distributes more broadly across New England ratepayers. By
21 transferring income in this manner, the acquisition may create conflict
22 among NEPOOL participants and may increase the risk of NEPOOL's
23 dissolution.

24 Finally, it is my opinion that efficiencies relevant to an analysis of
25 the competitive consequences of the acquisition, if present at all, are
26 substantially smaller than those claimed by the applicants: the

1 applicants attribute to the consolidation many savings that could be
2 achieved without the proposed acquisition and therefore, are not relevant
3 to the acquisition. Other savings either are not real or lack adequate
4 empirical support.

5 Q. What framework have you used to analyze the acquisition?

6 A. In analyzing the effects of this acquisition, I have begun by assuming
7 that the choice is between no merger and the merger without any conditions
8 or remedies. I realize, of course, that NU has offered several
9 transmission agreements and obligations as part of its proposal, and I
10 evaluate the effects of those remedies later. However, there are at least
11 two reasons for initially considering the effects of the merger with no
12 conditions. First, the relative attractiveness of various proposals for
13 remedy cannot be assessed until there is a clear understanding of the
14 nature of the competitive concerns the merger raises. Second, the
15 applicants' economic witness, Dr. Joseph Kalt, has testified that in his
16 opinion the transmission conditions are not needed because an
17 unconditioned merger raises no competitive concerns (Deposition of Joseph
18 P. Kalt, vol. 1, p. 188). After explaining the anticompetitive potential
19 inherent in this acquisition, I explain why the merger conditions proposed
20 by NU are inadequate to restore competitive conditions to pre-merger
21 levels.

22 Q. How is your testimony organized?

23 A. The remainder of my testimony is organized as follows. In the next
24 section, I discuss the reasons why the merger raises serious antitrust
25 concerns over the approximately four to five year period during which
26 neither New England utilities nor non-utility generators ("NUGs") can

1 expand their generating capacity much beyond the levels already planned.
2 In my opinion, the merged firm will have the ability to significantly
3 raise the price of delivered wholesale bulk power and to restrict
4 transmission access to New England utilities over this short-run time
5 frame. Section II also explains why NEPOOL's operating rules and
6 procedures cannot prevent these anticompetitive effects.

7 In section III, I question the applicants' assertion that the threat
8 of long-run market power can be dismissed. In section IV, I explain why
9 the merger conditions proposed by the applicants do not adequately address
10 the competitive risks created by the proposed acquisition. Section V
11 contains my analysis of the applicants' efficiencies defense of the
12 consolidation.

13 II. THE ACQUISITION INCREASES THE MERGED FIRM'S ABILITY TO RAISE THE PRICES OF
14 DELIVERED BULK POWER -- THE SHORT-RUN

15 Q. Will the proposed acquisition give NU/PSNH the ability to raise the
16 delivered price of bulk power?

17 A. My analysis shows that through its effect on both generating and
18 transmission capacity, the proposed acquisition significantly increases
19 the risk that market power will be exercised in pricing short-term
20 delivered bulk power to many New England utilities.

21 Utilities in New England frequently purchase short-term generating
22 capacity (see, for example, Direct Testimony of Walter Schultheis, p. 77
23 and Initial Testimony of Hilary G. Sayer, Jr.). There are several reasons
24 why utilities engage in these short-term transactions. For example, since
25 utilities cannot forecast load growth perfectly, the demand for
26 electricity typically will deviate from a utility's planned level of
27 capacity. When demand exceeds capacity, the utility will need to buy

1 short-term bulk power; when demand is sufficiently below capacity, it will
2 be in the utility's interest to sell bulk power. As another example, a
3 utility may experience a (planned or unplanned) outage at one of its
4 generating facilities, which leads it to purchase capacity.

5 Q. What do you mean by short-term transactions?

6 A. Short-term transactions are those that extend from a few days to several
7 years. More generally, when economists refer to the short-run, they have
8 in mind a period of time that is not sufficiently long to expand capacity.
9 In the electric utility industry, capacity expansions can take up to five
10 years or even longer.

11 Q. What is the principal basis for your concern that the price of short-term
12 delivered bulk power will increase?

13 A. NU will have a large share of the surplus generating capacity in New
14 England over most of the next decade even if it does not acquire PSNH.
15 PSNH also will have a large share of surplus generating capacity during
16 the first part of this period, except in the unlikely event that Seabrook
17 does not come on-line. As a result, NU's acquisition of PSNH will give
18 the merged firm an overwhelming share of the forecast surplus capacity
19 held by NEPOOL member utilities during the 1990s; and it eliminates, as an
20 independent source of bulk power one of a small number of firms that can
21 be relied on to supply short-run wholesale generating capacity to other
22 New England utilities over much of the next decade.

23 An estimate of the merged firm's share of expected surplus capacity
24 within NEPOOL is presented in Exhibit No. 522 (RJR-³~~1~~). This exhibit shows
25 the shares derived from Mr. Schultheis' testimony. Based on the merged
26 firm's share alone, the Herfindahl-Hirschman Index (HHI) of concentration

1 of surplus capacity will be well in excess of 5000 from 1994 through 1998.
2 This level of concentration normally raises serious concerns about the
3 exercise of market power (see, for example, Department of Justice, 1984
4 Merger Guidelines). In my opinion, the merger-related increase in
5 concentration increases the risk that the price of short-term bulk power
6 to utilities in New England will rise. This risk is greatest over
7 approximately the next five years, during which those utilities cannot
8 generally bring on-line new, unplanned generating capacity (see Sayer,
9 Initial Testimony) or transmission capacity (see Schultheis, Direct
10 Testimony, p. 171).

11 Q. Is it your opinion that the merger can not affect the prices for short-
12 term delivered bulk power for a period longer than five years?

13 A. No. The merger-related risk of higher short-term capacity prices will
14 remain even after five years. Utilities continually make decisions to buy
15 or sell short-term capacity -- that is, they are always operating in the
16 short-run. Hence, after 1995 NEPOOL members still will engage in short-
17 term capacity transactions. Further, there may be many occasions when
18 utilities inside Eastern REMVEC will want either to purchase such capacity
19 from or sell it to entities located outside that territory. On those
20 occasions when NU/PSNH also has surplus capacity to sell, its merger-
21 related increase in control over transmission access to Eastern REMVEC
22 will increase the risk of anticompetitive behavior. The current
23 projections are that NU, by itself, will be in a substantial surplus
24 position through 1998-99.

25 Q. Might the high levels of concentration of surplus generating capacity
26 somehow overstate the risk that the merger will increase delivered bulk

1 power prices in New England?

2 A. There are two reasons why it might be argued that the levels of
3 concentration shown in Exhibit No. 522 (RJR-³~~2~~) overstate the risk that
4 NU/PSNH will be able to increase the price of short-term capacity in New
5 England after the merger. First, it might be contended that NEPOOL's
6 rules and procedures could prevent the exercise of market power.
7 Specifically, NEPOOL members who want to avoid purchasing capacity can
8 "lean on the pool" and pay only the capacity adjustment and deficiency
9 charges that are set by NEPOOL.

10 Second, utilities outside of New England may have surplus capacity or
11 energy to sell to utilities inside New England. If power from outside New
12 England could be delivered at prices very similar to the prices that would
13 prevail inside New England but for the merger, such capacity could
14 constrain the exercise of market power by NU/PSNH.

15 However, neither of these postulated restraints can prevent NU/PSNH
16 from exercising market power.

17 Q. Please explain why, in your opinion, NEPOOL's rules and procedures will
18 not prevent an increase in the price of short-term capacity.

19 A. To answer this question it is useful first to describe NEPOOL's
20 procedures. NEPOOL members are assigned "capability responsibilities"
21 which require each utility to maintain a specified amount of generating
22 capacity for NEPOOL to dispatch. Capacity requirements are roughly
23 proportional to the relative peak loads of the members (Schultheis, Direct
24 Testimony, p. 52). A member who is in deficit is expected to add capacity
25 to meet its capability responsibility. (See Testimony of Jerrilynn Purdy
26 and Hilary Sayer.) This can be accomplished in the short-term by

1 acquiring ownership in or rights to capacity owned by other NEPOOL members
2 or to capacity owned by generators who are not NEPOOL members (Schultheis,
3 Direr Testimony, p. 51). The prices for these capacity rights are the
4 result of "market" negotiations between independent parties, rather than
5 being determined by NEPOOL.

6 A NEPOOL member that does not meet its capability responsibility by
7 either constructing its own capacity or negotiating contracts for the
8 capacity belonging to other generators "leans on the pool." When this
9 happens, NEPOOL assesses the capacity-short utility adjustment and
10 deficiency charges that are directly related to the number of MW that it
11 is deficient (Schultheis, Direct Testimony, p. 53). In recent years,
12 these charges, which are determined by NEPOOL, have been approximately
13 equal to the annual capital charge for turbine or peaking units, which are
14 a relatively inexpensive source of capacity (Schultheis, Direct Testimony,
15 pp. 54-55).

16 Q. Please explain why "leaning on the pool" cannot be expected to prevent
17 NU/PSNH from exercising market power over short-term capacity
18 transactions.

19 A. There are three reasons why "leaning on the pool" will tend to be an
20 ineffective constraint on the market power of NU/PSNH. First, when the
21 market price falls significantly below the pool's deficiency charge, it is
22 logically impossible for leaning on the pool to prevent the exercise of
23 market power since price increases up to approximately the level of the
24 deficiency charge would not induce leaning. In recent years, buyers have
25 frequently purchased capacity rights at effective prices that are less
26 than the cost of capacity associated with leaning on the pool. For

1 example, based on BSCo's recent buying experience, the current capacity
2 price is substantially below NEPOOL's adjustment and deficiency charges.
3 (See Purdy Testimony.)

4 Second, there is substantial reason to believe that NEPOOL members
5 will not be allowed continually to lean on the pool. Such behavior would
6 violate the spirit, if not the letter, of the NEPOOL agreement, under
7 which each member is expected to maintain adequate capacity, except in
8 extenuating circumstances. (See, for example, Purdy Testimony, Schultheis
9 Deposition, pp. 160-161, G&M/Electric, Response to FERC Staff's First Set
10 of Data requests, OEP/INT-1-33, and NU Response to FERC Staff Request,
11 March 26, 1990, Q-OEP/APP-033.) If some of its members began relying on
12 deficiency payments as their means of staying in compliance, substantial
13 strains will be created within NEPOOL (Schultheis Deposition, pp. 169-
14 175).

15 Support for this belief is provided by the fact that NEPOOL members
16 have been willing at times to pay negotiated prices for capacity which
17 have been considerably higher than the price, calculated on an "apples-to-
18 apples" basis, associated with meeting their capability responsibility by
19 leaning on the pool. (See Testimony of Jeri Purdy.)

20 Third, NU/PSNH can put pressure on NEPOOL to raise adjustment and
21 deficiency charges by threatening to retire generating units. That is, it
22 could make higher charges the quid pro quo for not retiring some surplus
23 capacity. Further, if NU/PSNH retires some of its high cost surplus
24 capacity, it will reduce the NEPOOL capacity available for members, who
25 are in deficit, to lean on.

26 Q. Can regulation eliminate any risk that the merged firm can raise the

1 delivered price of short-term bulk power?

2 A. Although regulation may circumscribe the exercise of market power by
3 electric utilities, I do not believe that, as a practical matter, it will
4 prevent prices for surplus capacity from increasing significantly above
5 the expected prices absent this merger. The behavior of prices paid by
6 Eastern REMVEC utilities for short-term generating capacity provides
7 support for the conclusion that regulation does not tightly constrain such
8 prices. For example, over the past several years the price that BECo has
9 paid for generating capacity to meet its capability responsibilities has
10 fluctuated dramatically (see Testimony of Jeri Perdy). This wide range of
11 prices indicates that utilities have substantial latitude in what they
12 charge for capacity. Indeed, Walter Schultheis even describes the means
13 by which utilities are able to exercise discretion over the prices
14 charged. Specifically, he explains (Direct Testimony, pp. 90-91) how NU
15 varies its capacity prices to meet the competition by offering prospective
16 buyers different slices of the NU system. This pricing flexibility
17 indicates that regulation will not prevent the merged firm from selling
18 generating capacity at higher prices in the less competitive post-merger
19 environment.

20 Q. Can utilities inside Eastern REMVEC, and other utilities dependent on the
21 merged firm's transmission facilities, turn to alternative suppliers
22 located outside of New England to prevent the merged firm from raising the
23 delivered price of short-term bulk power?

24 A. In my opinion, the merger substantially increases the likelihood that
25 utilities inside Eastern REMVEC will not be able to obtain reliable short-
26 term transmission service to generation sources outside New England

1 without paying higher prices for delivered bulk power. My concerns
2 regarding the availability of transmission capacity stem from the
3 following factors.

4 First, the quantity of uncommitted transmission capacity into New
5 England south of Maine -- that is, capacity available to meet demands for
6 short-term generating capacity from these suppliers -- will be largely
7 controlled by just two utilities, NU/PSNH and NEES. Much of the Maine/New
8 Hampshire interface is currently committed, and NU controls almost all of
9 the New York/New England interface which is uncommitted. (See Schultheis,
10 Direct Testimony, p. 133-137 and Booz, Allen & Hamilton, The Impact on
11 Connecticut of Northeast Utilities Proposed Acquisition of Public Service
12 of New Hampshire, April 20, 1990, p. IV-2F). In addition, the merger
13 substantially increases the control of one firm, NU/PSNH, over the
14 uncommitted capacity linking Eastern REMVEC with the rest of New England
15 by combining NU's uncommitted capacity to New York, with PSNH's
16 uncommitted capacity across the North/South interface.

17 Various transmission share measures related to this transaction have
18 been put forward by other witnesses. For example, according to Mr.
19 Schultheis, there is approximately 1400 MW of transfer capability between
20 New York and New England, of which NU currently owns approximately 72
21 percent (Direct Testimony at ___ and Exhibit No. ___ (WTS-19)). When
22 completed, Hydro Quebec will provide approximately 2000 MW of transfer
23 capability between Canada and New England (Direct Testimony at ___) and
24 together, NU and PSNH will control approximately 33 percent of this
25 capacity. Finally, PSNH owns 100 percent of the 1200 MW interface between
26 Maine and New Hampshire. These figures indicate that, absent any merger

1 conditions involving transmission, the merged firm would control on the
2 order of 2,868 MW (or over 60 percent) of the approximately 4,600 MW of
3 import capability from New York and Canada into Lower New England (i.e.
4 New England excluding Maine).

5 Ownership shares of the transmission interfaces between Eastern
6 REMVEC and the rest of New England are even more concentrated. NU's own
7 witnesses have indicated that, absent any merger conditions, NU/PSNH will
8 own approximately 80 percent of the transmission capacity into Eastern
9 REMVEC see Table A-5, "Tie Line Ownership Into Eastern REMVEC," Exhibit
10 No. ____ (JPK-36)).

11 Second, for generating capacity outside of a utility's territory to be
12 counted toward the utility's capability responsibility, the transmission
13 for delivering the energy must (in practice, if not in name) be
14 "reasonably" firm. Given the past availability of transmission capacity
15 in New England, this has meant that NEPOOL members have not actually had
16 to contract for firm transmission service, because there was a low
17 probability that non-firm service will be interrupted. However, if
18 reliable transmission capacity becomes difficult to obtain without
19 actually contracting for firm service, NEPOOL may no longer permit
20 capacity to be counted toward a utility's capability responsibility when a
21 utility does not have firm transmission service. (See NU Response to FERC
22 Staff Request, March 26, 1990, Q-OEP/APP-035, a.(1)) Thus, even absent
23 opportunistic behavior by the principal post-merger provider of
24 uncommitted short-term transmission capacity, the capacity available may
25 not be firm enough for the "import" to count for purposes of capability
26 responsibility. If it does not count, the purchaser will also have to pay

1 a deficiency charge.

2 Q. How would the merger affect utilities located inside NU's service
3 territory?

4 A. These utilities might also have to pay higher prices for short-term bulk
5 power contracts. Absent the merger, they too could have benefitted from
6 competition between PSNH and NU for generation. The merger will not
7 change their transmission dependency on NU, but, given regulation of
8 transmission, it is possible that delivered prices will rise after the
9 acquisition.

10 Q. How would an exercise of market power by NU/PSNH affect economic
11 efficiency?

12 A. The exercise of short-run market power by NU/PSNH can reduce economic
13 efficiency in several ways. First, by preventing NEPOOL members from
14 contracting for less expensive sources of delivered bulk power outside of
15 New England, the merged firm can reduce the efficiency of NEPOOL's
16 operations. Specifically, the average cost of energy consumed inside New
17 England will rise if NEPOOL cannot dispatch low cost sources of energy
18 that, absent the merger, would be available. As I explained above,
19 NU/PSNH will have incentives to withhold transmission capacity or to offer
20 it on less competitive terms, so that it can improve the terms under which
21 its own surplus generating capacity is sold. Hence, the merger creates a
22 significant risk that NEPOOL will be dispatching units that, on average,
23 have higher operating costs.

24 A merger-related increase in the price of short-term delivered bulk
25 power also will induce certain capacity-related inefficiencies. For
26 example, higher bulk power prices will induce Eastern REMVEC utilities to

1 build generating capacity inside their territory sooner than they
2 otherwise would and to invest in DSM programs at an earlier date. There
3 are at least two inefficiencies associated with this. In general, firms
4 that expand capacity or develop programs more rapidly than they would if
5 input prices were competitive will incur costs that could be avoided
6 following a slower development path. Thus, for example, a DSM program
7 that would cost \$10 million to develop over 3 years may cost \$12 million
8 to develop over just 2 years.

9 In addition, a merger-induced increase in the price of short-term
10 delivered bulk power may encourage Eastern REMVEC utilities to invest in
11 more total capacity, to avoid dependency on the merged NU/PSNH, than they
12 would otherwise. As a result, the total stock of generating capacity will
13 be larger than necessary to achieve desired levels of reliability.

14 III. ADVERSE EFFECTS OF THE MERGER IN THE LONG-RUN

15
16 Q. Will the NU/PSNH merger have effects beyond the continued problems you
17 described that occur when utilities engage in short-run bulk power
18 transactions to compensate for deviations in demand from their projected
19 levels?

20 A. Yes. In addition to the continuing "short-run" effects, there is a
21 likelihood that the merger will increase NU's ability to control the price
22 of delivered bulk power, even after utilities buying delivered bulk power
23 or transmission have had time to bring their capacity in line with their
24 projected demand. To analyze this situation, I will abstract from the
25 normal short-run deviations that can be expected to occur between load and
26 capacity. I then ask to what extent the proposed merger, by increasing
27 control over transmission, would allow NU/PSNH to profitably raise the

1 price for its generating capacity or to profitably broker power? Whether
2 NU can profitably restrict transmission access depends on two separate
3 issues: can NU restrict access and will it be profitable to do so?

4 Q. How can NU restrict access to transmission?

5 A. As noted above, the proposed merger will significantly consolidate control
6 of transmission access. This will give NU/PSNH the ability to restrict
7 transmission access unless other utilities can economically build
8 transmission facilities across NU/PSNH's service territory. However, as a
9 general matter, NU/PSNH will possess a significant cost and time advantage
10 over other utilities in constructing incremental transmission capacity
11 across its territory. Thus another New England utility could not
12 reasonably expect to bypass NU/PSNH by constructing a new transmission
13 right-of-way across its territory at costs comparable to those incurred by
14 the merged firm.

15 In addition, a utility that tries to bypass NU/PSNH by building across
16 its service territory could expect substantial and effective opposition by
17 NU/PSNH at local regulatory and siting agencies. (See Deposition of
18 Robert O. Bigelow, May 18, 1990, p. 91. Mr. Bigelow opined it would be
19 "impossible" to build across another utility's service territory in the
20 face of that utility's opposition. See also Project Hercules Update,
21 presented to NU's Board of Directors on June 28, 1989, in which NU
22 management indicated that "the right of eminent domain" was among the
23 assets NU would be acquiring.)

24 The merger also will give NU/PSNH a veto within NEPOOL. NEPOOL rules
25 allow it to direct a member to construct needed transmission facilities
26 for the benefit of the pool. Although it is open to question whether

1 NEPOOL would ever compel a member to construct facilities against the
2 member's will, the merger gives NU/PSNH the right to block such action.
3 Indeed, one of the merger-related benefits mentioned in NU's "Hart-Scott-
4 Rodino" 4C documents is a stronger position in NEPOOL (See "Attachment 8,
5 Management Presentation to Bill Ellis," p. 9, and "Attachment 11,
6 Potential Affiliations," p.9).

7 Q. Will NU/PSNH find restricting transmission access to be profitable?

8 A. To answer this question, I must first provide some simplified, analytical
9 background. In general, one would expect long-run equilibrium flows of
10 power between two regions unless the supply curves for power were
11 perfectly elastic and identical. (I am abstracting here from short-term
12 economy exchanges and focusing on the long run plans utilities in each
13 region would make to serve their loads.) If both supply curves are
14 perfectly elastic and transmission is supplied at constant cost, then
15 there are two possible outcomes. One is autarky, in which case each
16 region supplies all of its own needs. The other is specialization, in
17 which case one region generates the power for both regions. In fact,
18 however, we observe in Eastern REMVEC that utilities plan on a mix of
19 generation located in Eastern REMVEC and long term imports of bulk power
20 from NUGs and other utilities to meet their loads. This implies that the
21 supply curve for power in at least one of the regions, or in both regions,
22 is upward sloping (not perfectly elastic).

23 Q. What is the relevance of observed long-term power flows?

24 A. This implies that an entity controlling transmission between the regions
25 may find a restriction on transmission to be profitable, either to
26 increase the price of surplus generation it has to sell, or to profit from

1 opportunities for brokering.

2 Witness Kalt recognizes this possibility, but argues that because the
3 supply of generation (especially NUGs) and DSM was highly or perfectly
4 elastic within Eastern REMVEC, that the restriction of transmission access
5 would not be profitable.

6 Q. Do you agree with Dr. Kalt that the evidence put forth by him compels the
7 conclusion that NU/PSNH could not profitably restrict transmission access?

8 A. No. Dr. Kalt's arguments concerning the supply elasticity of generation
9 are not specific to Eastern REMVEC. If he is correct, the long-run supply
10 of generation would be highly elastic in all regions. However, in this
11 case one should not observe Eastern REMVEC utilities choosing a mixture of
12 own generation and long term imports to meet their loads. Given this
13 mixture, as noted above, at least one supply curve must be upward-sloping.

14
15 Further, there is substantial reason to believe that the supply curve
16 for generation within Eastern REMVEC is less elastic (more upward-sloping)
17 than the supply curve for imports to Eastern REMVEC. This is so for two
18 reasons. First, it is generally acknowledged that siting is considerably
19 more difficult to arrange within Eastern REMVEC than outside (See
20 Testimony of Richard L. Levitan). Second, Eastern REMVEC's imports will
21 be small relative to the total generation of regions which export to
22 Eastern REMVEC. This implies that changes in imports to Eastern REMVEC
23 will have a very small effect on the delivered price of such imports.
24 With Eastern REMVEC utilities relying on a mixture of generation located
25 in and outside of Eastern REMVEC and with the Eastern REMVEC supply curve
26 less elastic (more upward-sloping) than the supply curve for imports, it

1 must be the case that the Eastern REMVEC supply curve intersects the
2 import supply curve from below. Under these circumstances, the merger can
3 increase incentives to restrict transmission.

4 Q. Please explain why NU/PSNH might possess an incentive to restrict
5 transmission access.

6 A. As I noted, there are two possible sources for the incentive: to increase
7 the price of its own surplus generating capacity or to profit from buying
8 and selling power, which I will call brokering. I first explain the
9 incentive related to its own surplus generation. As an exporter to
10 Eastern REMVEC, NU/PSNH can, under certain circumstances, benefit from
11 restricting the imports of others by limiting the availability of
12 transmission. Imports are the marginal source of supply (because the
13 supply curve for generation within Eastern REMVEC intersects the import
14 supply curve from below), so restricting imports will increase the price
15 of delivered bulk power in Eastern REMVEC. When NU/PSNH controls
16 transmission, it can reduce imports without reducing its own sales to
17 Eastern REMVEC; that is, other exporters can be made to bear the output
18 reduction through transmission restrictions. NU/PSNH's profits increase
19 on sales of surplus generating capacity to Eastern REMVEC, since its price
20 increases but its volume does not fall. Hence, by concentrating control
21 over long-term transmission access to Eastern REMVEC in the hands of a
22 utility that has surplus generating capacity, the merger affects the
23 likelihood of anticompetitive behavior.

24 Even if NU/PSNH did not export its own generation to Eastern REMVEC,
25 it might profit by brokering the exports of others. Specifically, it can
26 require other exporters to sell their power to NU/PSNH at a low price and

1 then resell the power to Eastern REMVEC at higher prices. Further, unless
2 NU/PSNH could perfectly price discriminate, which is highly unlikely, the
3 exercise of market power through brokering would reduce economic
4 efficiency.

5 Q. Would restriction of transmission affect the cost of capacity built in
6 Eastern REMVEC?

7 A. Yes, transmission restrictions also would increase the cost of new
8 generation capacity built inside Eastern REMVEC. The economic viability
9 of generation projects inside Eastern REMVEC is affected by the
10 availability of transmission out of Eastern REMVEC, since owners of those
11 generating facilities will sometimes have short-term bulk power they would
12 like to export. If transmission out of Eastern REMVEC is relatively open,
13 then generation projects there will be more viable. In particular, the
14 net price an Eastern REMVEC utility's customers must pay over the life
15 cycle of a project is reduced by the amount of the export revenue.

16 Q. Is there documentary evidence that more restrictive transmission
17 conditions could increase the price of delivered bulk power?

18 A. Yes. First, NU apparently considered the anticompetitive effect as part
19 of its planning for the transaction. NU recognized that the merger could
20 affect the likelihood that state regulators would exclude some of its
21 generation capacity from the rate base. The 4C documents contain several
22 references to the acquisition solving NU's excess capacity problem and
23 reducing the risk of excess capacity disalliances. This is consistent
24 with the acquisition making it easier for NU to dispose of its excess
25 capacity at prices high enough so that Connecticut regulators would not
26 assess penalties on the sales or exclude the generating units from the

1 rate base. In addition, the 4C documents clearly indicate that the merger
2 will create increased opportunities for NU to engage in brokering between
3 low cost bulk power sources such as New York and Canada, and high cost
4 regions such as Eastern REMVE.

5 Q. Dr. Kalt also argued that DSM is in highly elastic supply, and that this
6 would make it unprofitable to increase bulk power prices to consuming
7 utilities. Do you agree with his conclusion?

8 A. DSM consists of a wide range of utility-funded programs that encourage
9 customers to reduce their demand for electricity, particularly their
10 demand during peak load periods. If peak load demand is reduced by, say,
11 100 MW, a utility can meet its load and related reserve responsibility
12 with about 120 fewer MWs of generating capacity, thereby saving the costs
13 associated with investments in that capacity. DSM programs include
14 expenditures to encourage customers to purchase energy efficient
15 appliances and lighting, to install energy storage systems which are
16 capable of shifting energy demands to off-peak periods, and to increase
17 the energy efficiency of their homes or businesses. (See, for example,
18 Boston Edison, "Long-Range Integrated Resource Plan 1990 - 2014," May 1,
19 1990, B-32).

20 The cost of a DSM program can be calculated in a number of ways,
21 including dollars per MW of capacity saved. A utility faces an elastic
22 supply of DSM programs if it can reduce the amount of capacity needed to
23 meet its peak load at a relatively constant cost per MW saved. For
24 example, suppose that a utility can reduce the capacity needed to meet its
25 load by 10 MW by spending \$10 million. If it can reduce capacity by
26 another 10 MW by spending an additional \$10.2 million, then the supply of

1 DSM will be relatively elastic. However, if another 10 MW reduction in
2 the utility's needed capacity will cost \$20 or \$30 million, then the
3 supply of DSM will be relatively inelastic.

4 Although Dr. Kalt argues that there is a highly elastic supply of DSM
5 at the margin, studies by Boston Edison, EUA (Montaup), NU, and UI(United
6 Illuminating) lead me to reach a different conclusion. For example, these
7 studies indicate that the benefit/cost ratios of DSM projects already
8 adopted vary widely and are not concentrated near the value 1.0. (See
9 Boston Edison, "Long-Range Integrated Resource Plan, 1990-2014," Volume I,
10 May 1, 1990, p. B-25; EUA Service Corporation, "A Screening and Evaluation
11 of Demand-Side Management Opportunities," March 1989, p. 29; Western
12 Massachusetts Electric Co., "Conservation and Load Management Program Plan
13 for the 1990's, Executive Summary," September 1989, p. 5; and "...Section
14 Three: Cost-Effectiveness Testing," March 1990, p. 36; and United
15 Illuminating Co., "Energy Action '90," p. IV-6). If the DSM projects are
16 ranked, starting with the ones with the highest benefit/cost ratios, the
17 differences in the ratios indicates that additional increments of demand
18 reduction are successively more expensive. This implies that the supply
19 elasticity of DSM programs already adopted has not been high.

20 The lack of concentration of past projects near the value 1.0 also
21 suggests that there were not in the past a large number of DSM programs
22 that were just barely worth adopting. Nor do the utilities' studies
23 provide any indication that there is a substantial reservoir of unadopted
24 DSM projects, with benefit/cost ratios only slightly less than 1.0 at
25 current power prices. From these considerations, I infer that there is
26 not a highly elastic supply of DSM programs that could be adopted if

1 prices for bulk power were to rise.

2 Q. Has Dr. Kalt properly applied the principles outlined in the Department of
3 Justice 1984 Merger Guidelines to justify his inclusion of DSM in the same
4 product market as generating capacity?

5 A. No. According to the Merger Guidelines, generating capacity would be in a
6 separate product market from DSM if a hypothetical monopolist of such
7 capacity could profitably increase wholesale bulk power prices by a small
8 but significant amount for a non-transitory period of time. However, in
9 his deposition (pp. 105-109), Dr. Kalt clearly indicated that he did not
10 analyze the product market in this way.

11 Q. What is the basis for your conclusion that the supply of NUGs is not
12 highly elastic?

13 A. The flow of power into Eastern REMVEC suggests increasing supply costs for
14 the reasons discussed above. In addition, there are at least two reasons
15 why expansion of generation within Eastern REMVEC likely would entail
16 increasing costs, and that would suggest, therefore, that NUG supply is
17 not highly elastic. First, potential generation sites are unlikely to be
18 equally attractive or available at similar costs. As the better sites are
19 used, the cost of additional supply will increase. Second, natural gas
20 may not be available at constant cost for all new NUGs. See Prepared
21 Direct Testimony of Richard L. Levitan, Carlos A. Riva and Joseph P.
22 Kearney.

1 IV. REMEDIES: THE NATURE OF ADEQUATE REMEDIES AND THE REASONS WHY NU'S
2 PROPOSED TRANSMISSION CONDITIONS ARE INADEQUATE

3 Q. Have you reviewed the transmission conditions proposed by NU?

4 A. Yes. NU has proposed transmission conditions which, according to Mr.
5 Schultheis, provide "assurance that the PSNH acquisition will improve the
6 competitive situation in New England" (Direct Testimony, p. 156). In my
7 opinion, however, the conditions are inadequate as remedies to the
8 anticompetitive effects I have identified.

9 Q. Before discussing what you believe are appropriate conditions for
10 remedying the problems created by this merger, could you briefly summarize
11 the NU proposal.

12 A. The Corridor Proposal sets aside 400 MW of transmission across New
13 Hampshire and Massachusetts. Under the terms of the NEES settlement, NEES
14 acquires rights to 200 MW of this capacity, and the rest is available to
15 customers in Eastern REMVEC. Existing obligations count against the 400
16 MW. Thus, only a portion of the 400 MW represents incremental
17 transmission capacity.

18 This capacity will be priced initially according to an embedded cost
19 formula that has not yet been filed at the FERC. When NU constructs new
20 facilities, a party that has taken corridor service is obligated to pay a
21 portion of the charges for new facilities, whether it requested additional
22 capacity or not. In addition, utilities must sign long-term commitments
23 to obtain a share of this capacity.

24 Under its transmission commitments, NU/PSNH will file tariffs for firm
25 and non-firm transmission for transactions of less than five years. If
26 adequate capacity is not available, NU promises to build new transmission
27 facilities if it is assured that it will recover the (incremental) costs

1 of the new facility through customer commitments for long-term support.
2 "Firm" transmission customers will be obligated to pay for a share of new
3 construction, although again no details have been provided. NU retains
4 ultimate authority to decide what new facilities are needed to continue to
5 provide the service and what the cost of those facilities is. An
6 aggrieved party can appeal to the FERC if it disagreed with NU/PSNH's
7 decisions. NU proposes specific priorities for allocating capacity during
8 periods of shortage. For example, during the first ten years,
9 transmission in support of NU/PSNH's bulk power sales receives higher
10 priority than transmission to support the power sales of third parties.

11 Q. In your opinion, do the NU proposals eliminate the competitive risks that,
12 according to your testimony, the proposed merger would create?

13 A. No, they do not.

14 Q. Please explain what conditions would be needed to eliminate the risks to
15 which the proposed merger gives rise.

16 A. I have identified competitive concerns with respect to the delivered
17 prices of both short- and long-term bulk power. Therefore, it is useful
18 to discuss separately the principles that would underlie effective
19 remedies to the short-run and long-run issues.

20 In my opinion, there are two possible approaches to solving the short-
21 run problem. The first approach involves divesting sufficient
22 entitlements to short-run generation and transmission capacity to restore
23 the competitive conditions that would have obtained in the supply of
24 short-term delivered bulk power absent the proposed merger. Of course,
25 generating capacity can be used only by a NEPOOL member to meet its
26 capability responsibility if it is bundled with sufficiently firm

1 transmission services. Therefore, the entitlements to the divested
2 generation capacity also must include entitlements to transmission
3 facilities that can be used to deliver the capacity to the border of
4 NU/PSNH's service territory. Moreover, the entitlements to transmission
5 would have to be of sufficiently high priority at appropriately related
6 prices that NU could not frustrate the relief by claiming that the
7 necessary transmission was not available or by overpricing what is
8 available.

9 The second possible approach to solving the short-term problem
10 involves providing short-term transmission service to existing generation
11 supplies outside New England and outside of Eastern REMVEC. The principle
12 behind a transmission-only solution is to enable sellers and buyers
13 outside and within New England to create the same competitive environment
14 for short-term generating capacity sales that competition in a no-merger
15 world would have provided. This means that NU/PSNH must make enough
16 short-run transmission capacity available to import the short-term
17 generating capacity that PSNH could have provided. Further, the prices or
18 tariffs for this transmission capacity must be both low enough and firm
19 enough to make it economic for buyers to import delivered bulk power if
20 generating capacity prices in New England rise above the level that would
21 have existed absent the merger.

22 Of course, a transmission solution to the short-run (or for that
23 matter in the long-run) problem will be ineffective if there are tactics
24 that the merged company can use to deny transmission access. For example,
25 suppose that, despite its commitments, NU/PSNH is able to prevent short-
26 term generating capacity from being imported. For example, the company

1 could falsely claim that transmission capacity is not available, or alter
2 its operating practices to reduce the transfer capacity of an interface.
3 Clearly, under these circumstances a transmission solution will not be
4 effective.

5 Q. In what respects do NU's proposed conditions fall short of the principles
6 you just outlined for restoring the pre-merger competitive conditions in
7 the supply of short-run bulk power?

8 A. First, NU certainly has not proposed any divestitures; its proposals fall
9 in the transmission-only category. Under NU's Corridor Proposal,
10 utilities must commit to purchase long-term capacity, and they cannot know
11 in advance just how much that capacity will cost them. Therefore, the
12 Corridor Proposal does not really provide access to short-term
13 generation/transmission capacity under the same terms that an independent
14 PSNH could provide such capacity.

15 Under its proposed transmission commitments, NU has offered to provide
16 firm short-term capacity. However, because there is very little
17 uncommitted transmission capacity available to utilities outside New
18 England and there are indications of increasing "tightness" of
19 transmission capacity, there is no reason to expect that prospective
20 buyers would receive transmission access sufficient to replace the short-
21 term competitive influence of an independent PSNH. In particular, the
22 potentially limited availability of uncommitted transmission capacity
23 raises a serious question in my mind whether in the future capacity
24 purchased outside of New England could be counted on to meet a NEPOOL
25 member's capability responsibility.

26 In summary, I believe that NU's proposals for restoring short-term

1 competitive conditions to the status quo ex ante are inadequate. In my
2 judgment, substantially stronger conditions or "safeguards" would be
3 necessary.

4 Q. Please explain what conditions will be necessary to eliminate the risk
5 that the merger will increase delivered prices of planned or long-term
6 bulk power.

7 A. The risk that delivered prices for long-term bulk power will increase can
8 be eliminated by creating for NU/PSNH the same incentives that an
9 independent PSNH would have had to build additional transmission capacity.
10 There are essentially three ways to achieve this goal. The first approach
11 is to make NU divest surplus generating capacity it is expected to have
12 after the mid 1990s -- that is, after the date by which an independent
13 PSNH would have little or no surplus generating capacity. If NU/PSNH has
14 no surplus generating capacity after that date, then an important merger-
15 related incentive not to expand transmission capacity will be eliminated.

16 A second approach to remedying the long-term problem involves
17 creating appropriate incentives -- carrots and/or sticks -- for the
18 merged firm to expand transmission capacity as freely as an
19 independent PSNH would have done. In periods when PSNH by itself
20 would not have possessed significant surplus generation, it would have
21 had no significant incentives (related to such surplus) for refusing
22 to construct new transmission facilities. Of course, very careful
23 consideration would have to be given to designing the incentives.

24 A third approach would be to give an entity other than NU control over
25 decisions to expand transmission capacity. This entity would also have to
26 function using an appropriate set of rules. In particular, it should

1 order the construction of new facilities only if the present value of the
2 expected stream of revenues from the facilities equals or exceeds the
3 present value of the expected stream of costs.

4 Q. In what respects do NU's proposed conditions fall short of the principles
5 you just outlined for restoring the pre-merger competitive conditions in
6 the supply of long-run transmission capacity?

7 A. NU's proposal fits none of the three alternatives, and is therefore
8 inadequate. It does not propose divestiture. NU/PSNH will possess
9 incentives to restrict construction of new transmission during periods
10 when an independent PSNH would not, since the merged company will still
11 possess significant surplus generation in the late 1990s. Finally,
12 NU/PSNH retains the ultimate authority to decide whether to construct new
13 transmission facilities; control of those decisions is not ceded to an
14 entity which has no financial incentive to refuse or delay construction
15 either to improve sales of its own surplus generating capacity or gain
16 from brokering.

17 V. EFFICIENCIES FROM THE ACQUISITION

18 Q. Have you reviewed the "synergies" claimed by NU's witnesses?

19 A. Yes. NU's witnesses discuss several "synergies" associated with the
20 proposed merger. These relate to the operation and maintenance of the
21 Seabrook nuclear power plant, improved availability of PSNH's fossil steam
22 generating units, energy expense savings achieved by the more efficient
23 own-load dispatch of the generation resources of NU/PSNH, reduction in the
24 combined systems' NEPOOL capability responsibility resulting from the
25 diversity of peak loads between PSNH and the NY system, savings in
26 administrative and general expenses, and savings in coal purchasing costs

1 for PSNH.

2 Q. What standards would you apply in evaluating these synergies?

3 A. For any cost savings to be viewed as an offset against the competitive
4 risks posed by a merger, it is necessary for two standards to be met.

5 First, the cost savings must be achievable only through the merger.
6 In other words, if the cost savings can be achieved through alternative
7 means which do not pose the same competitive risk (such as may be possible
8 through contracts or joint ventures in some circumstances), then the cost
9 savings are clearly not relevant to offsetting the harm to competition.

10 Second, the cost savings must be "real" (e.g., not at the expense of
11 other parties or overstated due to inappropriate calculations). Real,
12 merger-related cost savings will occur when there is an underlying economy
13 of scale or economy of scope that is realized only as a result of a
14 merger. However, in evaluating these potential economies, it is necessary
15 to examine the total costs of the firm, because economies of scale in one
16 area may be offset by diseconomies of scale in another area. (See, for
17 example, the discussion of efficiencies in the paper by Frederick R.
18 Warren-Boulton, formerly Deputy Assistant Attorney General for Economic
19 Analysis, Antitrust Division, U.S. Department of Justice, entitled
20 "Implications of U.S. Experience with Horizontal Mergers and Takeovers for
21 Canadian Competition Policy," in The Law and Economics of Competition
22 Policy, forthcoming).

23 Q. How do the energy expense savings achieved under NEPOOL's calculations of
24 "own-load" dispatch of the generation resources of NU/PSNH and the
25 reduction in the combined systems' NEPOOL capability responsibility
26 resulting from the diversity of peak load between PSNH and the NU system

1 fare when evaluated using these standards?

2 A. These alleged "synergies" are the ones that are most clearly achievable
3 only through the proposed merger. However, as recognized by the NU
4 witnesses, these savings represent a benefit only to NU/PSNH, and are
5 completely offset by increased costs to the rest of NEPOOL (see, for
6 example, Mr. Sabatino's testimony at pp. 13 and 17, and Mr. Noyes' Exhibit
7 JWN-2). Thus these "synergies" represent a purely private gain, and not a
8 real social benefit. As a result, these "synergies" should not be viewed
9 as an offset to the reduction in competition associated with the merger.
10 In addition, the loss to other members would place added stress on NEPOOL
11 and increase the risk of its dissolution.

12 Q. Please elaborate on the risk to NEPOOL created by the merger.

13 A. This acquisition increases the risk of NEPOOL becoming unviable. As just
14 explained, under NEPOOL's rules the merger will create a substantial shift
15 in the net benefits (benefits less costs) of NEPOOL to NU/PSNH and from
16 the rest of NEPOOL's members. Further, because the merger would provide
17 NU with a veto within NEPOOL, NU can prevent efforts by the other members
18 of NEPOOL to mitigate these financial effects of the merger.

19 Further, NU's 4C documents note that NEPOOL relationships already are
20 under increasing stress. (See "Attachment 7, Special Trustee Briefing, NU
21 Acquisition of PSNH," p. 6). NU's own calculation regarding whether it
22 should remain within NEPOOL may be affected by the merger. On the one
23 hand, while NU/PSNH can capture more of the benefits of NEPOOL, as
24 explained above, it can also achieve advantages of system diversity on its
25 own. (The same 4C documents mention that the merge-related increase in
26 size provides an advantage in surviving a breakup of NEPOOL). On the

1 other hand, as suggested by Dr. Kalt, insofar as the rules and procedures
2 of NEPOOL limit the ability of a member to exercise market power,
3 defection becomes more attractive because it increases freedom to exercise
4 market power.

5 Q. What are the results of your analysis with regard to the remaining
6 synergies?

7 A. The remaining synergies described by NU's witnesses, insofar as they are
8 real, could generally be achieved without the merger. Moreover, the
9 magnitude of savings for many of the synergies may be overstated, and NU
10 has failed to provide sufficient evidence of their existence and
11 magnitude.

12 Q. How do these conclusions apply to NU's claimed savings from operation and
13 maintenance of the Seabrook nuclear power plant?

14 A. Mr. Opeka (Direct Testimony, pp. 31-33) estimates that NU would save
15 approximately \$62.5 million on the operation and maintenance (O&M) of
16 Seabrook in 1991, "primarily by reducing NHY's dependence on outside
17 contractors." Mr. Noyes (Direct Testimony, pp. 15-16 and Exhibit JWN-2)
18 presents a net present value figure of \$780 million for the Seabrook O&M
19 savings, based on Mr. Sabatino's escalation of the 1991 estimate through
20 the year 2002 (Direct Testimony, pp. 7-10), and assuming that the savings
21 continue in perpetuity at a constant nominal dollar level beyond that
22 year. (Mr. Noyes applies the same approach to calculate the net present
23 value for the other synergy categories discussed below).

24 The principal economic defect in the Seabrook O&M synergy claim is
25 that, if the potential savings were really as great as stated by NU's
26 witnesses, there would be a strong incentive without the merger for NU and

1 PSNH to reach a contractual agreement providing for NU's operation of the
2 facility. NU has failed to show that the claimed Seabrook cost savings
3 could not be achieved through contracting. Further, it is likely that any
4 real cost savings that exist could be achieved through contracting,
5 because the function involved is simply facilities management. As a
6 result of the potential to achieve the Seabrook cost savings through
7 contracting, the claimed cost savings should not be counted as a synergy
8 resulting from the merger. In effect, NU has failed to show the "nexus"
9 between the merger and the claimed economy.

10 In addition, it appears that any Seabrook cost savings would be
11 considerably smaller than claimed by the NU witnesses. The \$62.5 million
12 cost saving in 1991 is based on comparing a cost projection of
13 approximately \$95 million, based on NU's Millstone 3 plant, versus a
14 figure of \$157.5 million derived from the O&M budget presented by New
15 Hampshire Yankee (NHY) in December 1989. However, Edward Brown, the
16 president and chief executive officer of New Hampshire Yankee, testified
17 that the major differences between the NHY and NU figures are explained
18 by: (1) expenses that are unique to Seabrook, such as extraordinary
19 emergency plan requirements; (2) the spreading of common costs, such as
20 for security, over three units at Millstone versus one unit at Seabrook;
21 and (3) the fact that 1991 is a refueling year for Seabrook, whereas the
22 Millstone figure is based on an average of 3 or 4 years, of which one was
23 a refueling year and the others involved lower-cost normal operations.
24 Mr. Brown estimated that, at most, annual savings of \$5 to \$10 million
25 might be achieved as a result of consolidation of staff in A&G and
26 engineering. (See testimony of Edward A. Brown before the State of New

1 Hampshire Public Utilities Commission, April 25, 1990, RE: DR 89-244
2 Northeast Utilities/Public Service Company of New Hampshire
3 Reorganization.)

4 Q. How do your conclusions apply to NU's claimed savings from improved
5 availability of PSNH's fossil steam generating units?

6 A. Mr. Opeka (Direct Testimony, p. 40) notes that NU's fossil steam plants
7 achieved a capacity weighted average availability factor of 86.8 percent
8 for the 1985-1988 period, while PSNH's units achieved a factor of 74.8
9 percent during the same period. He states that, to be conservative, NU
10 projects that they could improve PSNH's fossil steam unit availability by
11 five percent by 1995, in one percent annual increments (Direct Testimony,
12 p. 42). The net present value of these estimates presented by Mr. Noyes
13 in Exhibit JWN-2 is approximately \$73 million.

14 Mr. Opeka (Direct Testimony, pp. 44-52) describes several NU
15 management practices and systems. However, Mr. Opeka has not demonstrated
16 that the lower availability factors for PSNH are due to items that NU can
17 remedy: he has not shown how PSNH's current operations are different from
18 NU's, nor has he demonstrated that the NU practices and systems would
19 raise PSNH's availability factor. Further, even if the NU practices and
20 systems could increase PSNH's availability factors, the same issue as
21 discussed regarding Seabrook applies--NU could sell its management
22 services independently of the merger. Hence, NU has again failed to show
23 the "nexus" between the merger and the alleged efficiency which is
24 necessary for the synergy to weigh against competitive harms resulting
25 from the merger.

26 Q. How do your conclusions apply to NU's claimed cost savings with respect to

1 administrative and general expenses (A&G)?

2 A. Mr. Noyes (Direct Testimony, pp. 7-11) estimates that these savings will
3 result from sharing of administrative costs, reduction in staff by
4 approximately 100 positions, and increased ability to obtain volume
5 discounts in purchasing. He estimates that the net present value of these
6 savings is approximately \$124 million (Exhibit JWN-2). However,
7 demonstrating these A&G economies requires more evidence than the NU
8 witnesses have presented. In particular, they would have to provide
9 evidence of scale economies with respect to A&G expense. An example of
10 this type of analysis would be a cross-section comparison of different
11 sized utilities, showing that A&G expense as a percentage of total revenue
12 fell as firm size increased. Further, it would be necessary to show that
13 NU and PSNH are in the size range where further reductions in A&G expense
14 are possible. Analyses such as these would also require, inter alia, that
15 both A&G expense and total revenue be consistently defined across firms.

16 Q. How do your conclusions apply to NU's claimed savings in coal purchasing
17 costs for PSNH?

18 A. NU bases this "synergy" on its recent experience in purchasing coal at
19 approximately \$2 per ton less than PSNH, and calculates a present value
20 for the coal purchasing savings of approximately \$39 million (Direct
21 Testimony of John W. Noyes, pp. 14-15 and Exhibits JWN-2 and JWN-4).
22 However, NU has not demonstrated that its calculations provide a
23 consistent, "apples-to-apples" comparison of coal contract costs. For
24 example, there are indications that NU bases its savings on use of spot
25 market purchases instead of long-term fixed price contracts. (See
26 "Attachment 12," Prepared by F.P. Sabatino, 11/29/89, at p. 12). A

1 consistent comparison of coal costs would require adjustment for contract
2 features (e.g., length of contract, year in which signed) as well as the
3 various characteristics of the coal purchased. Further, even if it could
4 be shown, after making an apples-to-apples comparison, that NU's
5 organization could achieve lower coal costs, that ability would be a
6 marketable service which could be provided to PSNH through contracting.
7 Thus, the coal purchasing "savings" should not be counted as a benefit of
8 the proposed merger, since NU has not shown that those are real, merger-
9 dependent savings

10 Q. Could you summarize your evaluation of the NU synergy claims?

11 A. The synergies claimed by NU's witnesses should not be counted as offsets
12 against the competitive risks posed by the merger. First, the energy
13 expense savings achieved through NEPOOL's calculations of "own-load
14 dispatch" and the reduction in NEPOOL capability responsibility resulting
15 from peak load diversity are benefits only to NU/PSNH, with offsetting
16 increases in cost to the rest of NEPOOL.

17 NU has not provided persuasive evidence that the claimed cost savings
18 from operation and maintenance of the Seabrook nuclear power plant, from
19 improved availability of PSNH's fossil steam generating units, or from
20 reduced coal purchasing costs for PSNH would really occur. Further, if
21 any of those savings are real, they could likely be achieved without the
22 merger.

23 Nor has NU provided evidence that the claimed savings in
24 administrative and general expenses are real. Further, if some economies
25 of scale can be demonstrated in this area, it would be necessary to
26 examine costs in other areas of the merged firms' operations; since a

merger can create diseconomies of scale, as well as economies, it is necessary to verify that it is not simply the favorable (i.e., areas of economies) which are being presented.

VII. CONCLUSION

Q. What is your conclusion?

A. This acquisition should not be approved without appropriate conditions to eliminate the potential for the exercise of market power.

Exhibit Nos. 376 (GEL-1)
through 280 (GEL-5)

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Northeast Utilities Service Company
(Re Public Service Company of New
Hampshire)

Docket Nos. EC90-10-000
ER90-143-000, ER90-144-000,
ER90-145-000, EL90-9-000

PREPARED DIRECT TESTIMONY
OF
GEORGE E. LEARY

DIRECT TESTIMONY OF GEORGE E. LEARY

Identification and Qualifications

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Q PLEASE STATE YOUR NAME, POSITION AND ADDRESS.

A I am George E. Leary, Manager of the City of Holyoke Gas & Electric Department (HG&E). My business address is 70 Suffolk Street, Holyoke, MA 01040.

Q PLEASE STATE YOUR PROFESSIONAL QUALIFICATIONS.

A I have held my present position with HG&E since 1978. My formal education is in electrical engineering (B.S. 1965) and business administration (M.B.A. 1976). Exhibit 377 (GEL-2) summarizes my professional training and experience.

Conclusions

Q PLEASE SET FORTH YOUR CONCLUSIONS.

A The NU application should be disapproved. The past behavior of NU and its subsidiaries indicates that they are likely to act anticompetitively, to evade Federal Energy Regulatory Commission (FERC) regulation, to frustrate HG&E's enjoyment of its statutory rights under the Federal Power Act, and to eliminate HG&E as a competitor to Holyoke Water Power Company (HWP), NU's wholly-owned subsidiary. If the merger is consummated, and if the FERC approves other aspects of NU's proposal, NU will have both the incentive and the increased ability to injure HG&E.

Q WHAT IS THE BASIS FOR YOUR CONCLUSIONS?

A My conclusions are based on my own testimony and that of Roger C. Allen presented on behalf of HG&E, concerning competitive issues of HG&E. My conclusions also accord with testimony of several other witnesses.

1 Q DO YOU ADVOCATE CONDITIONAL APPROVAL BY THE FERC?

2 A No, I urge outright disapproval. However, if the FERC approves any of NU's
3 proposals it should, at a minimum, impose the following conditions:

4 1. NU may not consummate the merger until it has filed and secured
5 FERC final approval (including denial of rehearing) for (a) an appropriate
6 just and reasonable regional transmission arrangement which provides for
7 transmission access, joint rates, and timely construction of additional
8 transmission capacity, (b) both short-term and long-term NU transmission
9 tariffs, including joint rates on all the NU affiliates as well as local
10 transmission among the small utilities that are Transmission Dependent
11 Utilities (TDUs) within NU's service area, including municipal utilities
12 adjacent to HG&E.

13 2. NU may not consummate the merger until it divests itself of HWP.
14 Such a divestiture would remove a strong incentive to discriminate against
15 HG&E at the expense of our customers. A divestiture remedy would
16 eliminate the need for cumbersome, protracted regulatory supervision. It
17 appears that the FERC did not approve NU's acquisition of HWP in the first
18 place. Moreover the representations, or circumstances, which led the SEC to
19 approve that NU acquisition in 1967 are not operative.

20 3. NU may not consummate the merger until it establishes a separate
21 subsidiary to own and operate its transmission facilities and appoints an
22 ombudsman for customer interests. An expanded NU would dominate
23 transmission service in its region. There is a need to streamline NU's
24 responsiveness to regional needs, including negotiation and compliance with
25 the Federal Power Act. Accountability should be clearly established within
26 the NU structure. The transmission function should be accorded enhanced

1 status and visibility. Regulation normally assumes that the regulated utilities
2 will comply with fundamental requirements and that the FERC will not have
3 to police every action and detect every evasion. NU's behavior as scofflaw
4 and predator negates the normal presumptions. Appointment of an
5 ombudsman would help correct past inadequacies and assure better future
6 performance.

7 Anticompetitive Behavior

8 Q PLEASE ILLUSTRATE THE ANTICOMPETTIVE BEHAVIOR TO WHICH YOU
9 REFER.

10 A To illustrate these problems, I will refer to a history of anticompetitive tie-
11 in sales with regard to NU subsidiary HWP in its competition with HG&E for
12 industrial loads, to the current effort by NU to tie continued provision to
13 HG&E of Northfield Mountain pumped storage capacity to base load capacity
14 which HG&E does not want, and to NU's attempted price squeezing of HG&E
15 by unilaterally quadrupling NU's transmission rates for Point Lepreau power.

16 1. HWP tie-ins. HWP was historically a land-owning company which
17 constructed a system of canals, tapping the Connecticut River, and which
18 planned the City of Holyoke's industrial development. HWP continues to own
19 most of the land suitable for development in Holyoke. HWP has been, and
20 continues to be uniquely situated and the preponderant supplier of land in
21 Holyoke for industrial purposes. Holyoke continues to be an attractive and
22 hospitable site for industry. Under Massachusetts law, most industrial
23 customers in Holyoke are free to choose between HWP and HG&E as their
24 electricity supplier and are statutorily free to switch supplier. The two
25 systems own and construct duplicate distribution lines, down the same
26 streets, rarely sharing poles. Despite the inefficiency of duplicative

1 facilities, such competition, if honestly conducted, could offer benefits to the
2 industrial customer and quite possibly to the industrial development of
3 Holyoke. HG&E competes honestly for such loads. By honestly, I mean
4 competition as to electric service, including price, adequacy and reliability of
5 service, and conditions for initiation of service. HG&E does not attempt to
6 take advantage of the City of Holyoke's other municipal services (e.g.,
7 natural gas, sewage, water) which industrial customers need and tie any
8 aspect of their provision to that industry's selection of HG&E in preference
9 to HWP as supplier of electricity. HWP, in contrast, has made it a practice
10 to tie the sale of land to an agreement to buy electricity from HWP rather
11 than HG&E. HWP deeds include a restriction against taking the land out of
12 industrial use (which would eliminate HWP's right to sell electricity to the
13 land user). HWP has also leased land to industries (with nominal mortgages)
14 and sold them electricity.

15 It is striking that the selection of an electricity supplier by new
16 industries or by industries expanding their facilities in Holyoke generally
17 correlates with whether HWP land is involved:

18 --- Where HWP land is not involved, the industrial customer takes
19 advantage of competition (as one would expect) to negotiate back and forth
20 with both utilities for the best deal possible; and, I might add, HG&E tends
21 to win out.

22 --- Where HWP land is involved, HWP always wins out. Indeed, the
23 industrial customer does not even approach HG&E, much less negotiate with
24 us, as to terms and conditions of electricity purchases.

25 2. Northfield Mountain pumped storage. NU "bundles" electricity
26 services together analogously to the way it ties electricity sales to sales of

1 land. As with the land tie-ins, services are not priced and sold on their
2 individual merits, and customers are deprived of choosing the services that
3 they want. For about twenty years, HG&E has been buying a distinct
4 ("unbundled") peaking service from NU. HG&E's 3 megawatt (mW) unit
5 purchase of capacity from the Northfield Mountain pumped storage facility,
6 licensed by the FERC, complements HG&E's base load power supplies. HG&E
7 has purchased Northfield Mountain capacity pursuant to short-term, firm
8 contracts, which NU has periodically extended. Two years ago, HG&E
9 requested another extension, starting November 1, 1990. NU refused.
10 Instead, it offered HG&E a "bundled" service that NU calls "Slice of the
11 System," which includes Northfield Mountain peaking capacity, Millstone III
12 nuclear base load capacity and other base load and intermediate capacity.
13 HG&E already has enough nuclear capacity under contract, the combined
14 price of which HG&E secured at lower costs than the costs of NU's nuclear
15 offerings or of NU's Slice of the System. We want to continue to buy the 3
16 mW of peaking capacity from NU separately ("unbundled") from any other
17 power supplies. NU has thus far refused, thereby trying to ram down our
18 throats its high cost Millstone III nuclear power (over and above our own
19 share of Millstone III, which is 3.6 mW). We have reason to expect that, if
20 the FERC approves NU's current proposals, NU will amend its "Slice of
21 System" offering to also try to ram down our throats the high cost Seabrook
22 nuclear power NU proposes to acquire from PSNH (over and above our own
23 share of Seabrook).

24 3. Point Lepreau transmission price squeeze. HG&E's principal source
25 of energy today is a purchase from the New Brunswick (Canada) Hydro-
26 Electric Commission (NBHC) at its Point Lepreau power plant. Mr. Allen's

1 testimony sets forth HG&E's experience with NU's abrupt attempt to more
2 than quadruple the price it charges for its small part of the transmission of
3 this electricity bought by HG&E. Under the circumstances, the price
4 increase bears no relationship to any cost increases, is blatantly
5 discriminatory, and is designed to impose costs that will injure HG&E's
6 competitive strength. It was a predatory move.

7 NU installed its price increase under circumstances that effectively
8 undermined HG&E's ability to seek regulatory relief. NU employed the
9 expedient of not filing the increased rate contract. That left HG&E no
10 satisfactory option. We could have complained under section 206 of the
11 Federal Power Act, in which case the burden of proof would have been on
12 HG&E, and waited, perhaps indefinitely, for the FERC to schedule a hearing.
13 That option would not have been effective. So HG&E at first resisted
14 paying the higher rate because it had not been filed, had not been examined
15 by the FERC or its staff, and had not been subject to suspension for the
16 statutory period. When NU threatened HG&E's continued enjoyment of that
17 service to bring in its economical Point Lepreau supply, HG&E had no choice
18 but to sign a document dated on its cover 1 November 1988. Thereafter,
19 with NU's merger proposal and Seabrook contracts pending before the FERC,
20 NU has taken a more conciliatory stand, tendering (on February 26, 1990) a
21 substitute contract, also dated on its cover 1 November 1988, which "merely"
22 doubles the pre-November 1988 rate.

23 I find it disturbing that HWP's Form 1 Annual Report to the FERC for
24 1988 did not disclose as an Important Change During the Year (Form 1,
25 pages 108-109) that HWP had more than quadrupled a transmission rate to

1 HG&E, one of only two non-affiliated wheeling customers from which that
2 Form 1 reports transmission revenues.

3 Q WOULD HWP AND NU HAVE AN INCENTIVE TO MAXIMIZE HWP'S
4 INDUSTRIAL SALES IN THE FUTURE?

5 A Yes. Most of HWP's revenues come from its industrial sales. My Exhibit
6 378 (GEL-3) provides details based on HWP's 1988 FERC Form 1 Annual
7 Report which is supported by the related Massachusetts Supplement.
8 Although the Massachusetts Department of Public Utilities (DPU) receives
9 information reports from HWP, the DPU does not have regulatory jurisdiction
10 over any of HWP's electric rates or practices. When the Securities &
11 Exchange Commission (SEC) approved NU's acquisition of HWP in 1967, it
12 relied in part on its finding that HWP and its subsidiary, Holyoke Power &
13 Electric Company (HP&E), "will ... continue to be subject to regulation by
14 the Massachusetts Department of Public Utilities [Mass.DPU] and the Federal
15 Power Commission." [See my Exhibit 379 (GEL-4).] However, the Supreme
16 Judicial Court of Massachusetts indicated in 1969 that HWP is deemed a
17 manufacturing company, rather than a public utility, both for purposes of
18 DPU regulatory jurisdiction and for purposes of local real property taxation.
19 It appears that the Mass.DPU has never regulated HWP's electricity business.
20 See Exhibit 379 (GEL-4). The Federal Power Commission (FPC) did not
21 approve NU's acquisition of HWP.

22 Given the unregulated nature of HWP's business and the opportunities
23 for cross subsidization, NU and HWP have every incentive to maximize their
24 profit taking in HWP. They may even have a chance to evade DPU
25 regulation of the retail rates of the other NU subsidiaries and, possibly, of
26 FERC regulation of wholesale rates, by shifting HWP costs to those

1 customers, including HG&E. Documents produced during the course of
2 discovery demonstrate the sensitivity and attention of HWP and NU
3 management to their competition with HG&E for retail industrial loads. [See
4 my Exhibit 380 (GEL-5).] HG&E's published industrial rates result in almost
5 identical bills with the published industrial rates of NU's regulated
6 subsidiary, WMECO, which sells at retail in nearby Springfield. As best we
7 can determine, HWP's unregulated and unpublished rates yield slightly lower
8 bills and HG&E is conducting a cost of service study which will help
9 determine how we may compete most effectively for HWP's retail load.
10 Escalating NU transmission rates could thwart HG&E competitive efforts.

11 Q HAS THERE EVER BEEN AN ACTUAL EFFORT TO TAKE OVER HG&E'S
12 ELECTRICITY BUSINESS?

13 A Yes. HWP unsuccessfully tried, in 1965, to lease all of HG&E's facilities and
14 to take over and profit from the administration of HG&E's business.

15 Q IS THERE ANY REASON TO EXPECT THAT APPROVAL OF NU'S
16 PROPOSALS WOULD MAKE MATTERS YOU HAVE SET FORTH ANY WORSE?

17 A Definitely yes. I have already mentioned my anticipation that NU will
18 attempt to add high-cost Seabrook power acquired from PSNH to its "Slice
19 of the System" alternative, to the detriment of HG&E and its other potential
20 wholesale customers. Moreover, acquisition of PSNH's transmission system
21 (on which HG&E also depends for delivery of Point Lepreau power) will give
22 NU more power and opportunities to squeeze HG&E by raising transmission
23 rates. It will have a chance to impose higher PSNH rates on transmission
24 on behalf of HG&E just as it has imposed higher rates for the present NU
25 transmission. When the rates finally receive FERC review, NU may well
26 have a greater likelihood of success to the extent it divides up the

1 burdensome rate increases. At the least, it will be able to tuck them away
2 in more proceedings, dividing the resources of those who oppose the
3 increase. In addition, the substantive impact may seem smaller to the FERC,
4 reducing the chances of exercise of the full, statutory suspension power.
5 Since FERC resolution of rate increases filed under Section 205 of the
6 Federal Power Act (as well as Section 206 complaint proceedings) is time-
7 consuming, to say the least, every opportunity NU has to take advantage or
8 delay will severely diminish HG&E's competitive posture. As NU's economic
9 and political power multiplies, it will become ever harder to protect the
10 interests of HG&E's customers.

11 Q WHAT HARM WOULD BE CAUSED TO HG&E IF THE FERC DELAYS
12 SOLVING THE TRANSMISSION ACCESS, AVAILABILITY, PRICING,
13 DISCRIMINATION, AND PRICE SQUEEZE PROBLEMS UNTIL AFTER NU
14 CONSUMMATES THE MERGER?

15 A HG&E might have to wait forever for relief, while suffering consequences of
16 the merger in fact. In our experience, the FERC's impetus for early
17 decision on these NU applications is extraordinary. Other cases, where
18 relief is sought by customers of public utilities (who, one would think,
19 should be the beneficiaries of regulation) FERC procedures seem well nigh
20 interminable, so that the weaker party must settle for the best it can get,
21 without the benefit of the FERC acting as tribunal for the weak or
22 oppressed. NU is already a very powerful company, economically and
23 politically. NU is already the largest electric utility in New England, serving
24 in our region's two most populous states. Add New Hampshire to the service
25 territory, with two additional U.S. Senators to be cultivated, with the early
26 attention of every Presidential candidate and, at times, with the White House

1 Chief of Staff interested in its affairs, and NU will add to its power. HG&E
2 can only expect to find itself weaker and weaker against a swollen Goliath.
3 In my judgment, the FERC should be mindful of the admonition of the U.S.
4 Supreme Court in Brown Shoe Company v. United States regarding the
5 "desirability of retaining 'local control' over industry" and that laws to
6 control mergers are aimed not only against "accelerated concentration of
7 economic power on economic grounds, but also of the threat to other values
8 a trend toward concentration was thought to pose." Volume 370 United
9 States Supreme Court Reports 294, at pages 315-316 (1961).

10 Q WOULD THE PROPOSED MERGER STIMULATE INEFFICIENCIES?

11 A Yes. As Mr. Allen's testimony indicates, NU's attempts to impose excessive
12 transmission rates may force HG&E into inefficient decisions.

13 Q HAS HG&E SOUGHT FROM NU A LOCAL TRANSMISSION TARIFF
14 ARRANGEMENT TO FACILITATE TRANSACTIONS WITH OTHER TDUs OF
15 NU?

16 A Yes. NU would not cooperate. NU's policy of negotiating every
17 transmission arrangement contract by contract facilitates their resistance.
18 The contrary example of NEPCO, which offers transmission, long-term as
19 well short-term, under tariffs filed with and approved by the FERC, after
20 negotiation with the affected municipal utilities, highlights the unsatisfactory
21 behavior of NU.

22 Q WHY DO YOU SAY NU EVADES FERC REGULATION?

23 A As Mr. Allen shows, for example, NU does not comply with the FERC's
24 mandatory filing requirements and deadlines for new rates and changes in
25 rates. By scoffing at these requirements, NU effectively takes away
26 protections to which its customers are entitled. It would not be consistent

1 with the public interest to approve NU's proposals so long as the FERC has
2 no ironclad guarantee that the scofflaw has permanently cleaned up its act.

3 Q DOES THIS CONCLUDE YOUR TESTIMONY?

4 A It does.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY

NORTHEAST UTILITIES SERVICE COMPANY
(Re: Public Service Company of New
Hampshire)


Docket Nos. EC90-10,000
ER90-143-000, ER90-144-000,
ER90-145-000, and EL90-9-000

AFFIDAVIT OF WITNESS

I the undersigned, being duly sworn, deposes and says that the Prepared Direct Testimony of GEORGE E. LEARY served on behalf of the City of Holyoke Gas & Electric Department in this proceeding is the testimony of the undersigned, and that the exhibits sponsored by me to the best of my knowledge, information and belief, are true, correct, accurate and complete, and I hereby adopt said testimony as if given by me in formal hearing, under oath.


GEORGE E. LEARY

SUBSCRIBED AND SWORN to before me, a Notary Public in the County of Hampden, Commonwealth of Massachusetts, on this 18th day of May, 1990.


Catherine M. Gauthier
Notary Public

My commission expires: _____

QUALIFICATIONS OF GEORGE E. LEARY

Manager
City of Holyoke, Massachusetts
Gas & Electric Department

Education

- 1976 Masters Degree in Business Administration from Western New England College.
- 1965 Graduate of University of Massachusetts with B.S. Degree in Electrical Engineering.
- 1965-90 Attended various seminars and workshops in the fields of personnel administration, management and engineering.

Experience

- 1978- Manager, Holyoke Gas & Electric Department
Under three-member governing board has charge of operation of municipal gas and electric department with 140 employees, \$35 million of gross revenues.
- 1974-77 Assistant Manager, Holyoke Gas & Electric Department
Acted for Manager in his absence and assisted in directing operations.
- 1969-74 Assistant Superintendent, Holyoke Gas & Electric Department
Responsible for supervision of electric generation and distribution.
- 1967-69 Electric Distribution Engineer, Holyoke Gas & Electric Department
- 1965-67 Electrical Engineer, Holyoke Gas & Electric Department
- 1960-65 Cadet Engineer, Holyoke Gas & Electric Department
- 1987- Chairman of Massachusetts Municipal Wholesale Electric Company
- 1986-87 President of Massachusetts Municipal Wholesale Electric Company
- 1984- Director of Massachusetts Municipal Wholesale Electric Company
- 1979- Director of Northeast Public Power Association
- 1976-86 Treasurer of Massachusetts Municipal Wholesale Electric Company
- 1976-77 Treasurer of Massachusetts Municipal Power Development Corporation
- 1974-76 Director and Member of Executive Committee of Massachusetts Municipal Wholesale Electric Company
- 1975-82 Represented publicly owned systems in New England on New England Power Pool (NEPOOL) Operations Committee
- 1971-75 Represented Holyoke Gas & Electric Department on Connecticut Valley Electric Exchange Operating Committee

Professional Society Memberships

Institute of Electrical & Electronic Engineers, 1965-date. Chairman, Springfield Section, 1971

Massachusetts Municipal Electric Association (Engineering Group)

American Public Power Association (Committees: Transportation & Distribution;
Rates; Safety; Accounting & Finance)

American Wind Energy Association

New England Gas Association

American Public Gas Association

Municipal Finance Officers Association

Representative Community Service Organization Offices Held

1968	President, Greater Holyoke Jaycees
1968, 1976-date	Board of Directors, Greater Holyoke Chamber of Commerce
1969-date	Corporator, Greater Holyoke United Way
1980-date	Board of Directors, Holyoke, Inc. - Private Development Group
1974-date	Corporator and Director, Holyoke Hospital
1975-date	Corporator and Director, Peoples Saving Bank
1975-date	Corporator and Director, Holyoke Chapter of American Red Cross
1980-date	Director, and
1985-date	Chairman, Holyoke Industrial Development Finance Authority, Industrial Development Bonding Authority

SUMMARY OF HWPS BUSINESS BASED ON 1988 FERC FORM 1

	<u>Revenue (\$)</u>	<u>Energy Sales mwh</u>	<u>Customers</u>
<u>HWP itself</u>			
Sales of electricity			
Large/or industrial retail	\$8,350,891	117,806	45
Sales for resale	<u>2,746,602</u>	<u>41,860</u>	<u>2</u>
Total	11,097,493	159,666	47
Other operating revenues			
Sales of waste and water power	473,451	n/a	
Rent from electric property	3,280		
Other electric revenues	<u>290,900</u>		
Total	767,631		
TOTAL Electric Operating Revenues	\$11,865,124		
<u>HP&E subsidiary of HWP</u>			
Sales of electricity			
Large/or industrial retail	0		0
Sales for resale	<u>1,003,155</u>	<u>8,227</u>	<u>1</u>
Total	1,003,155	8,227	1
Other operating revenues			
Rent from electric property	<u>2,250</u>	n/a	
Total	2,250		
TOTAL Electric Operating Revenues	1,005,405		

HWP 1988 Form 1, page 123A

Public Utility Regulation: NU is registered with the Securities and Exchange Commission (SEC) as a holding company under the Public Utility Holding Company Act of 1935 (the 1935 Act), and it and its subsidiaries, including the Company (HWP), are subject to the provisions of the 1935 Act. Arrangements among the system companies, outside agencies and other utilities covering interconnections, interchange of electric power and sales of utility property are subject to regulation by the Federal Energy Regulatory Commission (FERC) and/or the SEC. The Company is subject to further regulation for rates and other matters by the FERC and follows the accounting policies prescribed by the FERC and the Massachusetts Department of Public Utilities.

SEC'S REVIEW OF NU ACQUISITION OF HWP

When the Securities & Exchange Commission (SEC) approved NU's acquisition of HWP in 1967, it relied in part on its finding that HWP and its subsidiary, Holyoke Power & Electric Company (HP&E):

will ... continue to be subject to regulation by the Massachusetts Department of Public Utilities [Mass.DPU] and the Federal Power Commission.

See Northeast Utilities, HCA Release No. 15825, 43 SEC 462, ____; 1966-67 Fed.Sec.L.Rep. (CCH) ¶ 77,467 at 82,919 (1967).^{*/}

The SEC acted on the FORM U-1 APPLICATION OR DECLARATION dated November 10, 1966 (the Application). The Application described HWP as follows:

3. Holyoke is a Massachusetts corporation and an exempt holding company (1 S.E.C. 384) engaged principally in the production, purchase, transmission, distribution and sale of electricity to industrial customers and to utilities in western Massachusetts, more than 93% of its gross operating revenues for the 12 months ended September 30, 1965, being derived from such activities. Part of Holyoke's electric operations are conducted through a wholly-owned subsidiary, Holyoke Power and Electric Company. The business and properties of Holyoke and its subsidiary are more fully described in Exhibit G-1.

Exhibit G-1 to the Application includes the following statements:

2. Regulation

Holyoke and HP&E are subject to regulation by the Department of Public Utilities of Massachusetts (DPU).

* * *

3. Rates

All of Holyoke's and HP&E's industrial contracts are filed with the DPU, and the rates provided for therein are subject to regulation by the DPU. Holyoke's and HP&E's contracts for sales of electricity at wholesale for resale also require approval by the DPU and are filed with and subject to regulation by the FPC with respect to rates and other terms and conditions.

* * *

However, the Supreme Judicial Court of Massachusetts indicated in 1969 that HWP is deemed a manufacturing company, rather than a public utility, both for purposes of

^{*/} FOR END NOTES, SEE PAGE 3 OF 3.

Exhibit 379 (GEL-4)
Page 2 of 4

DPU regulatory jurisdiction and for purposes of local real property taxation. Board of Assessors of Holyoke v. State Tax Commission, 355 Mass. 223, ___; 244 N.E. 2d 287, 293 (1989). In fact, the Mass.DPU has never regulated HWP's retail electricity business.***/

Exhibit G-1 to the Application also stated:

E. Real Estate Department

1. General

In 1859 Holyoke acquired ... 1100 acres of land in the City of Holyoke which had been designed for a planned industrial development. * * *

Holyoke also ... has purchased land ... primarily in connection with the operation of its electric business. Land sold in recent years has been sold in connection with industrial development and for the construction of all-electric homes. Certain properties owned by Holyoke are also leased to industrial customers.

2. Revenue

Holyoke derived about 2% of its consolidated gross operating revenues from real estate activities**/

The Application also asserted:

17. No federal commission (other than the Securities and Exchange Commission) and no state commission have jurisdiction over the proposed transaction.

It is unclear why Section 203 of the Federal Power Act would not have applied to NU's proposed acquisition of HWP in the 1960s just as it applies to NU's proposed acquisition of PSNH in the 1990s.

**/ FOR END NOTES, SEE PAGE 3 OF 3.

END NOTES:

*/ The SEC made the affirmative finding required by Section 10(c)(2) of the Public Utility Holding Company Act of 1935 (PUHCA) that "such acquisition will serve the public interest by tending towards the economical and efficient development of an integrated public-utility system." 43 SEC 462, 464-65; 1966-67 Fed.Sec.L.Rep. (CCH) ¶ 77,467 at 82,918. However, the SEC expressly noted there that, "Such finding ... does not extend to [HWP's] non-utility businesses. Whether such businesses may remain within the Northeast holding company system is subject to determination in future proceedings before us." In making the Section 10(c)(2) finding, the SEC noted expressly that the "effectiveness of regulation" was an element of the definition of "integrated public-utility system" in Section 2(a)(29)(A) of the PUHCA.

**/ The SEC found:

The franchise rights and service areas of both the Department and HWP have been granted and fixed pursuant to State law. HWP has been granted only limited rights to serve a restricted category of industrial customers,^{17/} and under this statutory restriction HWP would be eligible to serve only 17 of the Department's present customers, who account for only about 5% of the Department's electric revenues. There is no indication that any of these 17 will be likely to transfer their business from the Department to Northeast following Northeast's acquisition of HWP. On the contrary, the president of HWP, who Northeast states will continue in that post following affiliation, testified that his company, which as noted will continue as a separate operating company within the Northeast system with authority over local operations, has not tried in the past to obtain the business of any of the Department's industrial customers and, as far as he was responsible, would continue that policy after Northeast's acquisition of HWP.

^{17/} In the City of Holyoke, HWP is restricted to selling electricity (a) to customers under written contract and in quantities of not less than "one hundred horsepower at any one time" and (b) to customers who occupy property which is either owned by or mortgaged to HWP.

***/ See DPU letter dated May 21, 1990, reproduced next page.



The Commonwealth of Massachusetts
Department of Public Utilities
Loverett Saltonstall Building, Government Center
100 Cambridge Street, Boston 02202

May 21, 1990

Noreen M. Lavan
Arent, Fox, Kintner, Plotkin & Kahn
Washington Square
1050 Connecticut Avenue, N.W.
Washington, D.C. 20036-5339

Dear Ms. Lavan:

In response to your letter of May 15, 1990 regarding the Holyoke Water Power Company ("HWP"), I am able to offer a somewhat more complete picture of its status in relation to our Department. HWP is an industrial development corporation incorporated in 1859. Its revenues are derived from special contracts with industrial customers. None of these contracts are, or have ever been, reviewed or approved by this Department.

HWP files the Massachusetts Supplement to the FERC Form No. 1 with us, but it does not file rate schedules. HWP is not regulated in any way by the Massachusetts Department of Public Utilities. The wholesale electricity sales made by HWP are regulated by the FERC. HWP is not required to file copies of wholesale contracts nor rates with this Department.

I hope this explanation has been helpful. If you have any further questions regarding this matter, feel free to call me at (617) 727-9748.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Theo MacGregor".

Theo MacGregor
Rate Specialist
Electric Power Division

DOCUMENTS REVEALING NU - HWP MANAGEMENT SENSITIVITY TO
COMPETITION BETWEEN HWP AND HG&E

This exhibit comprises all attachments to the NU response to HG&E's Data Request No. 14 dated March 26, 1990. NU has designated that response as "Q-NUSCO-014, ATTACHMENT REVISED."

In this exhibit, a table of contents precedes these responsive documents.

[HG&E previously served a redacted version of this Exhibit. By letter dated June 29, 1990, counsel for NU has lifted the claim of confidentiality for this unredacted version of the exhibit, effective as of July 20, 1990. However, until the commencement of hearing, now scheduled for August 6, 1990, these documents are to be used for purposes of the FERC proceeding only, and not to become generally available.]

Table of Contents

1. Memorandum dated June 18, 1987
TO: J. P. Cagnetta, J. T. Hickey, F. R. Locke
CC: J. W. Noyes, C. J. Roncaioli
FROM: H. E. Overcast
SUBJECT: Holyoke Water Power Industrial Rates
2. Memorandum dated June 9, 1987
TO: J. T. Hickey
CC: F. R. Locke, J. P. Cagnetta, J. J. Lepore
FROM: H. E. Overcast
SUBJECT: HWP Industrial Rates
3. Memorandum dated April 27, 1987
TO: R. E. Barrett, F. R. Locke
FROM: J. P. Cagnetta
SUBJECT: HWP Analysis
4. Memorandum dated April 5, 1987
TO: B. M. Fox, J. P. Cagnetta
FROM: W. A. Hunt
SUBJECT: HWP Analysis (BMF-336)
5. Memorandum dated April 2, 1987
TO: J. P. Cagnetta
CC: L. Mahler, D. R. McHale, H. E. Overcast
FROM: C. J. Roncaioli
SUBJECT: Impact of Reducing the Rate of Return for HWP's Industrial Customers
6. Memorandum dated May 25, 1984
TO: J. P. Cagnetta
CC: W. A. Hunt, F. R. Locke, H. E. Overcast, R. P. Wax
FROM: R. H. Brown
SUBJECT: Holyoke Water Power (HWP) Industrial Rates
- 6A. Attachment 1 to # 6:
Memorandum dated January 26, 1984
TO: W. A. Hunt
FROM: H. E. Overcast
SUBJECT: Holyoke Water Power Retail Rates
- 6B. Attachment [?] to # 6:
Memorandum dated May 21, 1984
TO: R. E. Barrett, R. H. Brown, J. F. Deegan, E. J. Ferland, B. M. Fox,
M. P. Gregg, J. T. Hickey, F. R. Locke, L. E. Maglathlin, J. W. Noyes,
H. E. Overcast, R. O. Powell, J. J. Roman, J. D. Stenger, A. S. Sweeney,
W. F. Torrance, R. P. Wax
FROM: W. A. Hunt
SUBJECT: HWP Industrial Customers Notice of Rate Increase.
7. Letter dated April 9, 1984
TO: [redacted]
FROM: John T. Hickey
ATTACHMENT: [redacted]
8. Undated, handwritten document
FILE: HWP Rates

Data Request FHG & E02
Dated March 26, 1990
Q-NUSCO-014, Attachment
REVISED

June 18, 1987

TO: J. P. Cagnetta
J. T. Hickey
F. R. Locke

FROM: H. E. Overcast
Ext. 3407

SUBJECT: HOLYOKE WATER POWER INDUSTRIAL RATES

I understand that the decision relative to the form of Holyoke Water Power's industrial rate increase has been made. I understand that collectively you have agreed that the rate increase will be across-the-board to all elements of the rate schedule resulting in approximately the same increases for each industrial customer served by Holyoke Water Power.

It is fair to say that I am in no position to judge the political realities of the operation of Holyoke Water Power and I understand that this decision was

June 18, 1987

made to reflect the politics of operating within Holyoke. Certainly, it is your prerogative to make such political decisions.

Nevertheless, I feel obligated to indicate that I do not support the decision. My reasons are based on considerations of the competitive environment in which we operate and on the need for consistency between the rate philosophy we propose in a regulated environment and what we implement unfettered by regulation. As a result, I do not believe that the rates which are being implemented for 1987 and 1988 are in the best economic interest of Holyoke Water Power or of Northeast Utilities system. I base that judgement on analysis of a number of factors relating to the competitiveness of Holyoke Water Power. In fact, I see many similarities between the steps that are being taken to implement this rate increase and the kind of events which led to the ultimate demise of Holyoke Water Power's steam business. Specifically the across-the-board nature of the increase raises rates for those customers whose competitive alternative is a lower cost than the proposed July 1, 1987 average rate.

In evaluating the competitive alternative for two of the three largest customers on the Holyoke system, it is my belief that we will have priced our service out of the market and that the economic incentives for self-generation by Sunoco and Linweave are so favorable as to make them prime candidates for cogeneration marketing. Less one believes that the inactivity of Holyoke Gas & Electric relative to promoting gas cogeneration is reflective of the current market that I should indicate to you that Holyoke Gas & Electric is served by Tennessee Gas Pipeline. I am informed that Tennessee is actively marketing both gas and cogeneration to CL&P's customers. In fact, the Pfizer proposal for cogeneration in the Groton service territory is being driven by Tenneco,

the parent company of Tennessee Gas Pipeline. In addition, I am aware that Tennessee is taking an aggressive stance to market gas largely because of their own problems in the competitive distribution market. Tennessee has approached a number of customers of other gas pipelines and of local distribution company's in an attempt to sell gas. In reviewing the rate for gas, which Tennessee is currently offering, cogeneration facilities could secure a firm gas cost today which is equivalent to the gas cost assumed in the McKensey analysis for nonfirm gas with oil backup. Obviously the advantages of gas-fired cogeneration without oil backup are substantially higher than those calculated by McKensey since the absence of oil-firing will reduce the annual O&M costs associated with a cogeneration facility.

As you are aware, Sunoco Products was the largest steam user for the Holyoke Water Power steam system. Because of their own steam use, which was high on an annual basis as well as seasonally, the advantages of cogeneration to Sunoco are large. Under the proposed rates, which have been approved, the average rate for Sunoco is approximately 6.1¢/kWh in 1987 and 6.5¢/kWh in 1988. It is our estimate, using the McKensey model, that Sunoco could cogenerate for a cost of 5.8¢/kWh given the current cost of gas. The problem is obviously worse in 1988.

As you know, Sunoco accounts for over 23 percent of Holyoke Water Power's industrial customer revenue. The loss of that customer would represent a loss of \$1.2 million of fixed cost recovery associated with Holyoke's obligation under the NU G&T during the first 18 months and a subsequent loss of the Company's ability to compete, not only with cogeneration for Linweave, but with Holyoke Gas & Electric as well.

I recognize that there is no practical way to determine if this economic analysis will, in fact, cause us to lose Sunoco to self-generation. However, it is my opinion that the risk of such loss is too significant for Holyoke Water Power to bear and may ultimately create a situation where we can no longer serve any industrial customers in Holyoke.

The unfortunate part of this is that in order to maintain good high load factor customers on the system, it may even be necessary to lose some small low load factor customers to HG&E. While I know that is politically distasteful, it does enhance our position relative to the customers we would like to keep on Holyoke Water Power's system. The basis for this conclusion is that low load factor customers create higher costs, thus, adversely impacting the revenue requirements of our competitor allowing us to be more competitive for high load factor customers.

Although I do not expect you to change your decision regarding the rate design, since that decision has been made, I am providing this information because I feel the decision was incorrect. Furthermore, I cannot be in the position of having supported a rate design for Holyoke Water Power which is significantly different from any of the proposals that we are likely to make in either CL&P or WMECO for similarly situated customers. Such an inconsistency would damage the creditability of rate department witnesses as they make proposals in regulated jurisdictions which are substantially different from the way that we behave in an unregulated jurisdiction where we have complete freedom to implement proper rate design. If we had made a move in the direction of competitive rate design at this opportunity, we would have been in the

June 18, 1987

position in retail jurisdictions to justify our behavior on the basis of continuity considerations which we also raise in the retail jurisdictions.

HBO/11/h1.12

c: J. W. Noyes

C. J. Roncaioli

NORTHEAST UTILITIES



THE MASSACHUSETTS GAS AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
NORTON WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

M
E
M
O

June 9, 1987

TO: J. T. Hickey
FROM: H. E. Overcast
[Ext. 3407]

SUBJECT: HWP INDUSTRIAL RATES

Currently, the HWP industrial customers are scheduled to get a rate increase on July 1. The amount of this increase was determined last year.

Pursuant to your request, we have developed alternate rates which provide for phasing in, over two years, the proper increase in revenue requirements. We first determined the revenue increase required by computing the impact of the federal tax law change as well as the impact of the NU G&T revenue allocation reflecting HWP's loss of wholesale sales. These two impacts were virtually equal and offsetting so we used as our revenue target, the increase originally scheduled for July 1.

The revenue increases in the first year of the phase-in is one-half of the total. The increase in the second year equals the sum of the deferred revenue plus the Company's carrying cost on this unrecovered revenue. The carrying cost was computed using the Company's marginal cost of capital.

I understand that the basis for our rate design, the rates themselves and individual customer bill comparisons were provided to you at your June 3 meeting with Messrs. Roncaioli and Lepore. At your suggestion, we have since made modifications to Rate 4B in order to narrow the range of percent increases among all Rate 4B customers due to the new phase-in rates. If a comparison is made between the modified Rate 4B and the Rate 4B of June 3, modified Rate 4B produces increases in the range of 4.0 percent - 13.0 percent compared to 3.0 percent - 14.2 percent. Modified Rate 4B also produces less customer and demand revenue, and yields more energy revenue. Under the modification of Rate 4B, Rate 4B revenue, Rate 4A, and total revenue all remain unchanged. Provided with this memo are the modified Rate 4B design and individual bill comparisons.

Individual bill comparisons show that only Wang Labs receives more of a rate increase on July 1 under modified Rate 4B than under the current contract. Wang Labs receives a larger increase because its ratcheted demands are much larger than its unratcheted demands over the test period (year ending March 1987) and modified Rate 4B uses ratcheted demands while the current rate uses unratcheted. In reviewing the data, we note that Wang substantially increased its demand midway through the test period. Were its demand to remain fairly consistent at the new level, modified Rate 4B would produce less of an

June 9, 1987

increase than the current contract. Given the assumption that Wang's monthly demand stays consistent, our analysis indicates that all customers on Rate 4A and 4B will be better off starting July 1, on the proposed phase-in rates.

The customers, because we have contracts in place with all of them, need to choose the rate under which they shall take service. If customers do not select the proposed phase-in rates by July 1, they must continue to abide by our existing contracts.

Our proposed phase-in rates are structurally consistent with those being proposed in NU's Connecticut and Massachusetts retail jurisdictions, consistent with the rate structures transition we began last year, are less expensive than the rates of Holyoke Gas & Electric and are consistent with sound ratemaking principles.

If these alternate rates are satisfactory, we will prepare new contracts for those customers who select the phase-in rates. Please advise me of your decision.

CJR/11/ml.17

c: F. R. Locke
J. P. Cagnetta
J. J. Lepore

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
THE MASSACHUSETTS ELECTRIC COMPANY
THE NEW JERSEY POWER COMPANY
THE NEW YORK STATE ELECTRIC COMPANY
THE PENNSYLVANIA POWER COMPANY
THE VERMONT ELECTRIC COMPANY

F
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April 27, 1987
JPC-87-111

TO: R. E. Barrett, F. R. Locke
FROM: J. P. Cagnetta *JPC*
Ext. 3511
SUBJECT: HWP Analysis

Enclosed is a summary of our thoughts on HWP. We believe in time the HWP's financial condition will improve. We are making every effort to prevent the loss of industrial and wholesale customers as noted by Hunt in his 4/15/87 memo.

JPC:kbr

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

MEMO

April 15, 1987

TO: B. M. Fox
J. P. Cagnetta

FROM: W. A. Hunt *W.A. Hunt*

SUBJECT: HWP Analysis (BMF-336)

HWP is unique among NU Companies in that sales to two of the three major customer groups it serves are under the control of the customers, and are subject to competition. The largest customer group, the Municipals, can state, as of November 1 of each year, the load they will take from HWP beginning 12 months later. The second major group, the industrial customers, have the right to switch their supplier from HWP to the City of Holyoke Gas and Electric Department.

A major change for these customers took place when Millstone 3 began commercial operation. Each municipal owns entitlements in Millstone 3. Chicopee has 15.5 MW of Millstone 3 and South Hadley 6.6 MW. They reduced their purchases from HWP by these amounts when Millstone 3 entered service. In addition to their direct ownership of Millstone 3, the cost of power sold to them by HWP includes the cost of NU's ownership of Millstone 3. The FERC application for Millstone 3 costs did not include a phase-in. The municipal customers reacted by reducing their takings from HWP. Table 1 provides the changes taking place largely due to Millstone 3 entering service in April 1986.

Table 1

HWP Capacity Sales

	<u>July 1986</u>	<u>December 1986</u>	<u>November 1987</u>
Chicopee	37 MW	20 MW	1 MW
South Hadley	5.7	1	1
Industrial	<u>24.3</u>	<u>24.3</u>	<u>24 (Estimate)</u>
Total	67 MW	45.3 MW	26 MW

South Hadley gave appropriate notice and reduced its purchases as of November 1, 1986 from 5.7 megawatts to 1 megawatt.

To replace the reduction of its purchases from HWP, South Hadley is purchasing 10 megawatts of oil-fired generation from Middletown and Montville, and 3 megawatts of gas turbines from NU under a unit contract type of purchase. Chicopee reduced its load purchased from HWP from 37 megawatts to 20 megawatts on November 1, 1986, and has given notice that it will reduce its load from 20 megawatts to 1 megawatt on November 1, 1987. Chicopee is currently purchasing 20 megawatts of unit contract power from NU to cover the 17 megawatts of reduced purchases from HWP, and 3 megawatts of growth.

To ease the impact of the increase in NU power costs due to Millstone 3 on HWP industrial customers, HWP provided a two-year phase-in. Because these customers are not regulated, deferred accounting could not be used for a phase-in. Therefore, an arrangement was provided whereby the industrial customers pay 60 percent of the cost increase primarily related to Millstone 3 in the first year, and an additional 50 percent in the second year. The extra 10 percent provided in the first year represents the cost of the two-year phase-in borne by HWP. These industrial customers have expressed dissatisfaction with the increased cost of power, but power costs from the alternative source, the City of Holyoke Gas and Electric Department are higher than HWP's power with the full cost of Millstone 3 included.

HWP has a third customer, the New England Power Company (NEPCO), which has a life-of-unit contract for 56 megawatts from the Mt. Tom unit. HWP filed with FERC to amend the contract with NEPCO, but it was a 206 proceeding, with HWP obtaining rate relief only prospectively from the Commission approval of a final order in the case. The 206 proceeding has resulted in approximately a 2-1/2 year period between the filing for relief by HWP and final approval of the decision by FERC. New rates were placed in effect on March 4, 1987. As a result of the Order, HWP expects an increase in revenues of approximately \$300,000 annually. However, as a result of the findings by the ALJ, which were upheld by the Commission, HWP is required to refund over the remaining 3 years of the contract life, approximately \$5 million representing a replacement reserve maintained as a part of HWP's common equity account. This \$5 million was written off in September 1985 so that it does not impact HWP's earnings after August 1987. HWP also sells 33 megawatts under a life-of-unit contract to WMECO, but this sale has no effect because WMECO and HWP are both parties to the NUG&T Agreement, which effectively reduces the impact of the sale to zero.

HWP does make another "sale". This sale is to the other NU operating subsidiaries through the NUG&T. As HWP's load shrinks, the proportion of NU system costs that it supports through the NUG&T also shrinks. HWP's generation is lower than the NU system average cost. As a result, the power it produces and does not utilize for its own load is sold through the NUG&T, and has a return under the NUG&T formula of 16 percent on common equity.

HWP's ROE fluctuated significantly over the past two years. Table 11 provides HWP's ROEs from July 1985 through February 1987.

Table II

<u>Month</u>	<u>ROE*</u>	<u>Month</u>	<u>ROE*</u>
July 1985	14.17	May	6.61
August	12.66	June 1986	7.23
September	8.80	July	2.60
October	7.13	August	5.23
November	8.04	September	7.44
December	7.80	October	8.93
January 1986	8.74	November	10.53
February	9.06	December	7.60
March	8.62	January 1987	5.73
April	8.11	February	5.38

*Cost of Capital Method - 13 month average period.

During this period, there were several events that created this fluctuation. In September 1985, the replacement reserve was written off and was the primary reason for the September 1985 ROE to drop by 3.86 percent from the August level. The ROE reached a low point of 2.6 percent in July 1986 as a result of the correction of an error related to tax expense and a metering problem. Since that point, the ROE has had fluctuations which have not been analyzed due to pressures of other workload. Two events that will tend to improve HWP's earnings are:

1. The second step of the Millstone 3 phase-in in industrial customers' rates, scheduled to take place in May 1987; and
2. The change in the Mt. Tom contract charges to NEPCO in March of 1987.

The outlook for HWP's financial picture is for a reasonable level of return over the next few years. There appears to be no need for radical changes in HWP at this point. There is the potential that arrangements can be worked out with Chicopee and South Hadley under which newly proposed interruptible service rates will enable HWP to retain a significant portion of the load of these municipalities. Both of these customers have expressed an interest in maintaining a relationship with HWP that will enable them to have their power supply planning done by NU.

NORTHEAST UTILITIES



THE COMMONWEALTH LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
NEW ENGLAND POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

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April 2, 1986

TO: J. P. Cagnetta

FROM: C. J. Roncaioli *CJR*

SUBJECT: Impact of Reducing the Rate of Return for HWP's Industrial Customers

The Cost-of-Service Section has rerun the Holyoke Water Power cost study to reflect a reduction in the proposed rate of return. The analysis indicates that a reduction in the currently proposed rate of return of 16.5% to 15.5% would reduce the proposed two-year phase-in increase of \$2,316,000 to \$2,187,900. Because the relationship between the proposed rate and the proposed increase is linear, it can be expected that a one percentage point reduction in the rate of return will offset the proposed increase by increments of approximately \$128,000, or 5.5 percent of the total increase.

Therefore, a one percentage point reduction in the rate of return for HWP's industrial customers would have a minimal effect on HWP's rate structure or rate level. The overall impact on HWP's bills due to a one percent reduction would contribute only slightly to eliminating the problem of remaining competitive with Holyoke Gas and Electric.

DRM/dm

c: L. Mahler
D. R. McHale
H. E. Overcast ✓

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
NEW YORK WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

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May 25, 1984

TO: J. P. Cagnetta

FROM: R. H. Brown *RHB*

SUBJECT: Holyoke Water Power (HWP) Industrial Rates

On January 26, 1984, the Rates and Load Research Department recommended that HWP's industrial rate contracts be increased by approximately \$1,500,000 annually (see Attachment 1). I have recently learned that the required six-month notice was provided on April 9, 1984 to the customers that their rates would be increased in October and that the new rates would be discussed with the customers "in early June" (see Attachment 2). Given the June commitment, it is important that a prompt decision be reached regarding the amount of the increase in order that rates can be designed and individual customer bill comparisons prepared. However, there presently is no clear agreement among those concerned as to the appropriate level of increase.

HWP's industrial contract arrangements are unique in two respects: first, the contract sales are subject to neither FERC nor Massachusetts DPU jurisdiction (albeit the contracts are provided to the DPU); second, the Holyoke Gas and Electric Department (HG&E) has a legal right to sell to HWP's customers. Under these circumstances, there are no regulatory bounds on rate levels; instead HWP's marginal costs provide a lower bound on rate levels, and value-of-service considerations establish an upper bound. There have been times when HWP has had to limit its rates to levels below those which would produce a "fair rate of return," if measured on a conventional cost-of-service basis. At other times, HWP may have the opportunity to charge at levels in excess of cost of service, thereby offsetting lean earnings years.

Our recommended \$1,500,000 increase has been computed on a value-of-service basis, principally taking into consideration the likelihood that HWP's customers will cease taking service from HWP, which we believe to be unlikely at the proposed revenue levels. In addition, I believe it is relevant to consider whether establishing HWP's rates on a value-of-service basis would result in levels materially in excess of WMECO's retail industrial Rate 35 levels. Although customer-specific bill comparisons are impractical because of differences in HWP's and WMECO's rate design and, hence, available billing statistics, average revenue per kilowatt-hour statistics provide a measure of comparability. Based on HWP's preliminary FERC filing data, HWP average industrial revenues are about 4.8¢/kWh and 5.3¢/kWh for Period I (12 months ending 6/83) and Period II (1984 budget), respectively. The proposed increase would add

about 1.4¢ to these values. WMECO's DPU rate case data indicate that WMECO's test year Rate 35 average revenues per kWh are about 6¢/kWh at present rates and 7¢/kWh at the proposed rates. Another comparison of HWP and WMECO corroborates that WMECO's present Rates 20 and 35 are substantially higher than HWP's rates. Clearly, then, the proposed \$1,500,000 increase would not exceed value of service measured against either HGE's or WMECO's rate levels.

The HWP preliminary cost-of-service studies prepared for HWP's planned FERC filing indicate an industrial rate revenue deficiency of only about \$430,000 and \$700,000 for Periods I and II, respectively. These deficiencies reflect the fact that HWP has been and is expected to earn less than fair rate of return, even for the 1984 Period II test year inasmuch as the new rates will not become effective until October. Consequently, basing the increase on value of service as proposed, rather than cost of service, provides an opportunity to offset some of the present inadequate earnings while not exceeding the most relevant measures of competitive rate levels.

RHB/kss45242

Attachments

c: W. A. Hunt
F. R. Locke
H. E. Overcast
R. P. Wax

ST UTILITIES

THE CONNECTICUT LIGHT AND POWER COMPANY
THE HARTFORD ELECTRIC LIGHT COMPANY
ALSTOM MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHWEST UTILITIES SERVICE COMPANY
NORTHWEST NUCLEAR ENERGY COMPANY

Attachment 1

M
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January 26, 1984

TO: W. A. Hunt

FROM: H. E. Overcast *HEO*

SUBJECT: Holyoke Water Power Retail Rates

The Rates and Load Research Department has completed an analysis of HWP's industrial rates which indicates that revenues can be increased by \$1,500,000 while still remaining competitive with the rates of Holyoke Gas & Electric. The rate of return at this level has not been determined as we are awaiting a year-end 1984 capital structure to complete the cost of service study.

Since the last industrial rate increase became effective July 15, 1982 and since six months notice is necessary to implement new rates, it would be prudent to announce new rates soon to obtain significant increased revenues in 1984.

Please advise me of the increase desired so that rate design may be completed.

DFO/ae/214

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
NORTHEAST WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

RECEIVED

MAY 23 1984

JOHN P. CAGNETTA
V.P. - CORPORATE &
ENVIRONMENTAL PLANNING

TO:

FROM:

W. A. Hunt

SUBJECT:

HWP Industrial Customers
Notice of Rate Increase

JPC

FIVE - UNTIL A COUPLE OF DAYS AGO I
HAD LEARNED THAT WE HAD ISSUED 4/8/84.
OVERCAST IS IN REASONABLY GOOD POSITION TO
DO THE NECESSARY RATE DEVELOPMENT WORK
BUT NO DETERMINATION HAS BEEN MADE AS TO
REVENUE REQUIREMENTS. HUNT IS LEAVING
MAY 21, 1984

TO MAKE A DETERMINATION BASED ON COST OF
SERVICE (OR RUC) BUT WE HAVE NOT YET
HEARD EMPHASIS SHOULD BE GIVEN TO HOW
MUCH THE MARKET WILL BE ABLE TO RELATE
TO HAVING ETC AND WHILE WE
RATES FOR INDUSTRIAL CUSTOMERS
RHS

On April 9, 1984, the HWP industrial customers were sent written notice (copy attached) of an anticipated rate increase to become effective on October 9, 1984. The six-month notification of the rate increase is a requirement of the contracts with HWP and its industrial customer. No other regulatory commission approval or notification is required.

As has been the Company's past practice, the customers will be given advance notice of the level of rate increase prior to the effective date. A meeting with the customers will be scheduled in June, 1984 to discuss the rate changes and answer any questions.

*R. E. Barrett

~~R. H. Brown~~

J. F. Deegan

E. J. Ferland

B. M. Fox

M. P. Gregg

J. T. Hickey

F. R. Locke

L. E. Maglathlin

J. W. Noyes

H. E. Overcast

R. O. Powell

J. J. Roman

J. D. Stenger

A. S. Sweeney

W. F. Torrance, Jr.

R. P. Wax

WMECO
F. E. E.

DECISION SHOULD NOT
REST SOLELY WITH HUNT
GIVEN THE UNIQUE
COMPETITIVE SITUATION
AT HWP

File: HWP
Rate Increase

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
THE HARTFORD ELECTRIC LIGHT COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

ONE CANAL STREET
HOLYOKE, MASSACHUSETTS 01040
(413) 536-5520

April 9, 1984

Mr. Dale F. Bojanowski, Purchasing Manager
Atlas Copco Holyoke, Inc.
161 Lower Westfield Road
Holyoke, Massachusetts 01040

Dear Mr. Bojanowski:

An evaluation of the rate levels currently in effect for our customers is underway. As a result of this evaluation, it is anticipated that a rate increase will be required. In accordance with the terms of our contract, a six-months' notice is required prior to a change in rate level. Therefore, in accordance with that contract, this is to notify you that, as of October 9, 1984, new rates will become effective.

The last rate increase occurred in July of 1982, and the need for adjusted rates now is attributable to increased costs of doing business over the two-year period.

Because the amount of the increase and the rate structure are still being determined and are not yet fully developed, we cannot provide information on the details of the anticipated change. However, information will be provided to you well in advance of the changes in the contract; and a meeting will be set up with you in early June to explain the changes in rates and answer any questions you may have.

Sincerely,

HOLYOKE WATER POWER COMPANY

John T. Hickey
Manager

JTH:dmh

HOLYOKE WATER POWER COMPANY
ELECTRICAL CUSTOMERS
April 1984

Roger Pennycook, President
Acme Chain of Incom Int'l
821 Main Street
Holyoke, MA 01040

Al Marzec, Plant Manager
Adams Plastics Co., Inc.
P.O. Box 831
Holyoke, MA 01041

James R. Sullivan, President
Advance Offset Plate, Inc.
P.O. Box 1427
Holyoke, MA 01041

Robert M. Stelzer, President
Advertising Corp. of America
P.O. Box 790
Holyoke, MA 01041

Francis Guiliano,
Anpad Corporation
75 Appleton Street
Holyoke, MA 01040

Richard Trembley, Comptroller
Amherst Concrete Co., Inc.
2420 Boston Road
Wilbraham, MA 01095

Dale F. Bojanowski, Purchasing Mgr.
Atlas Copco Holyoke Inc.
161 Lower Westfield Road
Holyoke, MA 01040

William E. Aubin
W.E. Aubin, Inc.
P.O. Box 1033
Amherst, MA 01002

Richard Nickerson, Treasurer
Autron Inc.
P.O. Box 911
Holyoke, MA 01041

James Curran
Curran Construction Co.
109 Lyman Street
Holyoke, MA 01040

Donald J. Curtis, Pres. & Treas.
Curtis Business Forms
115 Whiting Farms Road
Holyoke, MA 01040

Richard R. Nickerson, Treas.
Eastern Specialties Co., Inc.
P.O. Box 350
Holyoke, MA 01041

Ronald Feinstein, President
Dennison National Company
Water Street
Holyoke, MA 01040

Thomas Burke, Vice President
Graph Coat Inc.
P.O. Box 348
Holyoke, MA 01041

Edward L. Senecal, President
Gravure Engraving Corp.
709 Main Street
Holyoke, MA 01040

Marvin Nadler, Chief Exec. Officer
Halmar Distributors, Inc.
49 Garfield Street
Holyoke, MA 01040

Frank N. Fowler, President
Hampden Papers, Inc.
100 Water Street
Holyoke, MA 01040

Robert D. Sadler, President
Hart Wool Combing, Inc.
216 Appleton Street
Holyoke, MA 01040

Thomas N. Hazen, Treasurer
Hazen Paper Company
Third Level Canal
Holyoke, MA 01040

Craig Dolan, Superintendent
City of Holyoke
Dept. of Public Works
24 Commercial Street
Holyoke, MA 01040

Irwin Sagalyn, President
Holyoke Machine Co.
P.O. Box 988
Holyoke, MA 01041

Donald J. Curran, General Mgr.
Holyoke Transcript Telegram Publishing Co., Inc.
120 Whiting Farms Road
Holyoke, MA 01040

Thomas Keough, Manager
Holyoke Wire Cloth Company
650 Race Street
Holyoke, MA 01040

Frederick J. Hampson, President
Industrial Chromium Corp.
109 Lyman Street
Holyoke, MA 01040

Evan Simpson, Mgr. Environmental Affairs
James River Graphics, Inc.
28 Gaylord Street
South Hadley, MA 01075

Irwin Sagalyn, President
JARI Associates
c/o Holyoke Machine Co.
P.O. Box 988
Holyoke, MA 01041

Allan R. McKinnon, President
J.W. Jolly, Inc.
529 South East Street
Holyoke, MA 01040

Robert Belsky, President
Linweave Inc.
Linweave Way
Holyoke, MA 01040

Michael Paulsen, Plant Manager
Ludlow Corp.
Laminating & Coating Division
111 Mosler Street
Holyoke, MA 01040

Manfred Rosenkranz
Marox Company
P.O. Box 225
37 Appleton Street
Holyoke, MA 01040

Elihu M. Schepps, Vice President
Mastex Industries, Inc.
Cabot & Bigelow Street
Holyoke, MA 01040

R. J. Lange, Plant Manager
Mobil Chemical Company
3 Hanover Street
Holyoke, MA 01040

Peter Davis, Plant Manager
New Balance Athletic Shoe Inc.
383 Dwight Street
Holyoke, MA 01040

Robert Puschel, Plant Manager
Nantucket Manufacturing Company
Canal Street
Holyoke, MA 01040

Wilfred W. Scott, President
Northeast Wire Co., Inc.
60 Jackson Street
Holyoke, MA 01040

D. John Coutu, General Manager
Parsons Paper Division
National Vulcanized Fibre
Sargeant Street
Holyoke, MA 01040

Harold Beek, Plant Supervisor
Radco Industries, Inc.
104 Whiting Farms Road
Holyoke, MA 01040

H. Lorne Rosebrugh, Plant Manager
Sonoco Products Company
Third Level Canal
Holyoke, MA 01041

Richard G. Quimper, Vice President
Springfield Photo Mount Co.
475 North Canal Street
Holyoke, MA 01040

Irving A. Quimby, Vice President
Texon, Inc.
Canal Street
South Hadley, MA 01075

Shefford Goldband, President
Totsy Manufacturing Co., Inc.
P.O. Box 509
Holyoke, MA 01041

David Magoon, President
University Products, Inc.
South Canal Street
Holyoke, MA 01040

Lawrence Hudock
Xidax Corporation
195 Appleton Street
Holyoke, MA 01040

Kathleen A. Cote, Plant Director
Wang Laboratories, Inc.
361 Whitney Avenue
Holyoke, MA 01040

Michael Welch, Director of Mfg.
Witco-Richardson Graphics Division
717 Main Street
Holyoke, MA 01040

File: HWP Rates

Need to reduce so that
total does not exceed 14-15%

Competitive edge not lost because
lower than H&E and

'88 rates range from
6.2 to 6.4 \$/ton for
large customers.

ON BEHALF OF
CITY OF HOLYOKE GAS & ELECTRIC DEPARTMENT

DIRECT TESTIMONY OF ROGER C. ALLEN

1 Identification and Qualifications

2 Q PLEASE STATE YOUR NAME, POSITION AND ADDRESS.

3 A I am Roger C. Allen, Assistant Manager of the City of Holyoke Gas & Electric
4 Department (HG&E). My business address is 70 Suffolk Street, Holyoke, MA
5 01040.

6 Q PLEASE STATE YOUR PROFESSIONAL QUALIFICATIONS.

7 A I have been employed by the HG&E since 1955 and as Assistant Manager since
1 1978. I have served on several industry committees. Exhibit 382 (RCA-2)
2 further summarizes my professional qualifications.

3 Q PLEASE SUMMARIZE YOUR RESPONSIBILITIES AT HG&E.

4 A My responsibilities include the operation, maintenance and planning for steam,
5 electric and hydro generation, transmission and distribution, including
6 negotiations with NU.

7 Description of HG&E and Dependence on NU

8 Q PLEASE DESCRIBE HG&E AND ITS INTERCONNECTIONS.

9 A HG&E's electric utility operations serve over 20,000 meters with a peak load of
10 in excess of 57 megawatts (mW) or 57,000 kilowatts (kW).

11 HG&E has two 115 kilovolt (kV) interconnections with NU subsidiaries
12 through which it receives 95% of its power supply. The most recent 115 kV
13 interconnection is directly with Western Massachusetts Electric Company
14 (WMECO). The earlier 115 kV interconnection is with WMECO and Holyoke
15 Water Power Company (HWP), another NU subsidiary which owns a short
16 transmission line (about 200 feet) between HG&E's 115 kV system and
17 WMECO's.

1 My Exhibit 383 (RCA-3) describes HG&E and its relation to NU in
2 greater detail.

3 Q **DOES HG&E DEPEND ON ITS INTERCONNECTIONS WITH NU?**

4 A Yes. HG&E is a transmission dependant utility (TDU) of NU. HG&E has no
5 other ties to the outside world. HG&E depends on these interconnections and
6 on transmission services by NU subsidiaries to secure economical power
7 supplies for its customers. HG&E thereby brings in economical and reliable
8 power from the New York State Power Authority (NYPA) and from New
9 Brunswick (Canada), as well as from New England nuclear and non-nuclear
10 power plants in which HG&E has acquired entitlements. HG&E engages in
11 NEPOOL exchange transactions via these interconnections. HG&E also
12 purchases some power from NU via these interconnections and may purchase
13 more in the future. Transmission service is vital to HG&E which generates
14 less than 5 percent of the electricity that its customers buy.

15 Q **DOES HG&E DEPEND ON TRANSMISSION SERVICES BY UTILITIES OTHER**
16 **THAN NU?**

17 A Yes. HG&E's most economical sources of power supply are commonly beyond
18 the reach of NU's transmission system. Accordingly, HG&E needs transmission
19 services by other utilities as well. For example, in 1989 HG&E secured 36
20 percent of its energy supply from the Point Lepreau nuclear plant in New
21 Brunswick, Canada. NU is one of five intervening utilities supplying
22 transmission service to bridge the gap of several hundred miles between HG&E
23 and its supplier, the New Brunswick Hydro-Electric Commission (NBHC). HG&E
24 needs service from the New England Power Company (NEPCO), Public Service
25 Company of New Hampshire (PSNH), Central Maine Power Company (CMPC) and
26 Maine Electric Power Company (MEPCO), in addition to NU's rather limited

1 part of the pathway. (Mr. Schultheis' Exhibit 127 (WTS-5) shows by color
2 coding each utility's ownership of the total transmission path from Canada to
3 HG&E, which is located at the square marked "Mount Tom," an NU power plant
4 within Holyoke's city limits, in the network of light blue NU 115 kV lines.)
5 HG&E's current contract with NBHC extends into 1994. Negotiations are in
6 progress with NBHC for an extension. Obviously, transmission service by NU
7 and other intervening utilities would continue to be indispensable.

8 Q WHAT IS THE CURRENT EXTENT OF HG&E'S PURCHASES FROM NU?

9 A HG&E buys up to 3 mW of peaking power from NU's Northfield Mountain
10 pumped storage plant. Otherwise, HG&E relies on power purchases from other
11 utilities and on its own generation, as summarized in my Exhibit 383 (RCA-3).

12 Q COULD HG&E BUILD AN INTERCONNECTION WITH ANOTHER MAJOR
13 UTILITY'S TRANSMISSION LINES?

14 A The nearest existing transmission grid of another major utility belongs to
15 NEPCO, which owns both 115 kV and 345 kV facilities within a few miles of
16 Holyoke. However, even if HG&E could secure the right of way and regulatory
17 permission to build such a project, the cost (which would run into millions of
18 dollars) would be duplicative and wasteful. There is plenty of capacity in the
19 NU facilities to meet all of HG&E's transmission needs. Accordingly, it would
20 be grossly inefficient to have to build yet another line and HG&E should not
21 have to build such facilities.

22 Summary of Testimony

23 Q PLEASE SUMMARIZE YOUR REMAINING TESTIMONY AND CONCLUSIONS.

24 A I will describe the history of NU's discriminatory transmission rates to HG&E,
25 including its abrupt increase in rate for the Point Lepreau transmission
26 service, completely out of line with transmission rates of other utilities. I will

1 describe how NU's delays in complying with FERC filing requirements and NU's
2 insistence on contract-by-contract dealings with each utility separately deprive
3 HG&E of important rights and benefits.

4 Point Lepreau Transmission Rate Increase

5 Q PLEASE EXPLAIN NU'S INCREASE OF THE TRANSMISSION RATES FOR
6 POINT LEPREAU POWER FROM CANADA.

7 A In November 1982, HG&E signed a transmission agreement with the NU
8 Companies concerning power which HG&E purchases from the New Brunswick
9 Hydro-Electric Commission (NBHC). HG&E has this economical power delivered
10 via utilities in Maine and New Hampshire (PSNH, CMPC and MEPCO) and via
11 NEPCO transmission facilities to NU which completes the transmission to
12 HG&E. NU submitted the agreement to the FERC for filing in May 1983 and
13 it is on file now as HWP FERC Rate Schedule No. 37. That agreement was
14 amended from time to time as the quantities supplied by NBHC to HG&E
15 increased. Under HWP Rate Schedule No. 37, prices paid to NU are adjusted
16 automatically from year to year to reflect NU's costs.

17 That agreement expired October 31, 1988. HG&E sought an extension.
18 NU demanded a price increase which more than quadrupled the total price--
19 that is, an increase of over 300%! -- raising its annual rate from about \$5 to
20 over \$24 per kW. New England utilities other than NU own and maintain the
21 lion's share of the transmission path from the New Brunswick - Maine border
22 to HG&E. Yet NU charged HG&E over 50% of the total transmission payments
23 to the five utilities providing transmission service -- even though NU's
24 transmission mileage is roughly 5% of the total. Previously, NU collected
25 about 20% of the total. My Exhibit 384 (RCA-4) shows HG&E's payments for
26 those transmission services and my Exhibit 385 (RCA-5) shows NU's rates,

1 before and after, for Point Lepreau transmission. Mr. Schultheis' Exhibit
2 127 (WTS-5) shows the transmission lines involved, their voltage rating, and
3 their ownership.) The mechanisms by which NU sought to achieve its price
4 increase included imposition of a hefty "tie-line" adjustment charge and
5 elimination of the traditional 50% discount which reflects the fact that utilities
6 other than NU provide part of the service. (In addition, NU added a "lost
7 opportunity" charge to the contract, but did not actually implement that
8 provision.)

9 NU in effect forced HG&E to sign a new contract effective from
10 November 1, 1988 through October 31, 1994. Otherwise HG&E would have lost
11 its economical Point Lepreau power supply benefit. We told NU that we would
12 object to the FERC when they filed the contract. HG&E returned the signed
13 contract under protest on November 3, 1988, and, expecting a FERC filing at
14 any time, HG&E instructed its counsel to make ready to object. But NU did
15 not file. So NU unilaterally imposed a harsh increase on us. When we phoned
16 and asked from time to time why NU hadn't filed, we were told, "Oh, it's on
17 Walter's desk."

18 Q WHO WAS THIS WALTER?

19 A Walter Schultheis.

20 Lack of Tariff and Delayed FERC Filings

21 Q DOES NU COMMONLY PROCRASTINATE IN ITS FERC FILINGS?

22 A Yes. As you can see from my Exhibit 385 (RCA-5), NU may take months or
23 years before it gets around to submitting its transmission contracts to the
24 FERC.

25 Q DOES NU HAVE FERC TARIFFS FOR TRANSMISSION OR SALE?

1 A No. NU deals only contract by contract. It does not provide a tariff which
2 offers any qualifying customer the right to service at pre-defined, publicly-
3 posted terms and conditions.

4 Q DOES NU THEREBY DISADVANTAGE HG&E?

5 A Yes. Failure to offer tariff transmission service injures HG&E and other small
6 utilities in several ways.

7 NU makes it difficult to plan for short- or long-term needs, impairing the
8 efficiency of utility planning to meet consumer needs at the least cost.

9 NU enhances its power by dividing its customers and exposes us to the
10 risks of undue discrimination. As my Exhibit 385 (RCA-5) shows, NU's
11 transmission rates vary radically among customers. As of February 1990, for
12 example, NU responses to HG&E data requests indicate a variance of over 3 to
13 1. There are no cost or other legitimate business justifications for such
14 differences in NU's methods of rate making. HG&E's Point Lepreau
15 transmission experience shows how NU can pick a victim for rate changes. If
16 NU had a tariff, its rate changes would have to be filed at the FERC,
17 uniformly and visibly affecting all of its customers. Customers would then
18 have all the opportunity and incentive to try to match NU with their strongest
19 countervailing efforts. When NU picks us off one by one, and then delays
20 compliance with FERC filing requirements, it truly abuses the smaller municipal
21 utilities.

22 If NU had a transmission tariff, HG&E and other municipal utilities,
23 notably including its immediate neighbors, could exchange power and engage in
24 other mutually beneficial planning and operations. Instead, our requests for
25 such service have been disregarded or rebuffed.

1 My answer regarding the value of a transmission tariff would also apply
2 to a wholesale sales tariff.

3 Q WOULD YOU BE SATISFIED WITH A COMMITMENT TO FILE A PROPOSED
4 TARIFF FOR "SHORT-TERM" SERVICE, OF FIVE YEARS OR LESS, WITH THE
5 FERC SHORTLY AFTER NU'S PROPOSED MERGER WAS CONSUMMATED?

6 A No. Apart from our need for longer-term service as well, NU's skill at delay
7 is just too great. It might be years, if ever, before we really had an approved
8 tariff in place. The time schedule of this merger proceeding is severely
9 accelerated in comparison with ordinary rate filing matters. If NU could get
10 its proposal approved first and submit relief measures only later, for additional
11 FERC proceedings, we might never get relief. Our Point Lepreau experience
12 shows both how arbitrary NU can be and its willingness to be more
13 conciliatory while this merger proceeding is pending.

14 Q IS COMPETITION IN THE SUPPLY OF BULK POWER AND TRANSMISSION
15 SERVICE IMPORTANT TO HG&E?

16 A Yes. HG&E depends on its interconnections with and through NU to utilities
17 in New England such as PSNH and NEPCO and their transmission facilities, as
18 well as to utilities in New York, New Brunswick and Quebec, and New
19 Hampshire, Connecticut and Vermont. HG&E's ability to provide economical
20 electricity supplies to its customers is enhanced by competition among
21 suppliers of electricity and transmission services. Competition between NU and
22 PSNH would be beneficial to us. Both are expected to have capacity to market
23 over the next several years. Their combination under one management will
24 impair our negotiating position on behalf of our customers.

25 Q HOW IMPORTANT ARE THE RATES CHARGED FOR TRANSMISSION?

1 A Extremely important. Transmission access can be denied or constrained by
2 excessive transmission rates. Excessive transmission rates can burden and
3 impair HG&E's ability to compete with NU at the retail level, as discussed in
4 Mr. Leary's testimony.

5 Q DO EXCESSIVE TRANSMISSION RATES LEAD TO INEFFICIENCIES?

6 A Yes. Efficient planning should be based on reasonable and predictable
7 transmission rates. Power planning will be distorted, and inefficient choices
8 will be forced on planners, if they have to anticipate excessive transmission
9 rates as eroding the value of least-cost options.

10 Q ARE NU'S TRANSMISSION RATES EXCESSIVE?

11 A Yes. One example is the NU share of the Point Lepreau transmission.
12 Compared to NEPCO's rates, for example, NU's rates are plainly too high.
13 One does not have to do a detailed study to see that NU is charging too much
14 for its Point Lepreau transmission, has charged much too much, and has
15 changed its rates arbitrarily and unpredictably. Detailed studies could fine
16 tune my conclusions, but the fact is readily apparent that NU's rates are out
17 of line. As to the NYPA transmission, NU is charging HG&E higher
18 transmission rates to bring NYPA power from the New York border to Holyoke
19 than it charges two nearby Connecticut utilities.

20 Q WHAT EFFECT WOULD THE MERGER HAVE ON TRANSMISSION RATES FOR
21 ANY OF THE PATHS ON WHICH HG&E DEPENDS?

22 A If NU controls more companies involved in any given transmission path it will
23 directly control their transmission rates. If merger makes NU larger and more
24 powerful, that will enhance NU's leadership position to influence our other
25 transmission providers, even if NU does not conspire with or coerce them, in
26 regard to transmission rates.

1 Q DOES THAT CONCLUDE YOUR TESTIMONY?

2 A Yes, it does.

UNITED STATES OF AMERICA

BEFORE THE

FEDERAL ENERGY REGULATORY

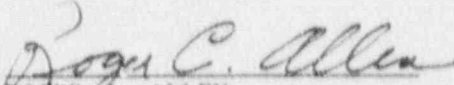
NORTHEAST UTILITIES SERVICE COMPANY
(Re Public Service Company of New
Hampshire)

)
)
)
)


Docket Nos. EC90-10,000
ER90-143-000, ER90-144-000,
ER90-145-000, and EL90-9-000

AFFIDAVIT OF WITNESS

I the undersigned, being duly sworn, deposes and says that the Prepared Direct Testimony of ROGER C. ALLEN served on behalf of the City of Holyoke Gas & Electric Department in this proceeding is the testimony of the undersigned, and that the exhibits sponsored by me to the best of my knowledge, information and belief, are true, correct, accurate and complete, and I hereby adopt said testimony as if given by me in formal hearing, under oath.


ROGER C. ALLEN

SUBSCRIBED AND SWORN to before me, a Notary Public in the County of Hampden, Commonwealth of Massachusetts, on this 17 day of May, 1990.


Notary Public

My Commission expires:



QUALIFICATIONS OF ROGER C. ALLEN
Assistant Manager
City of Holyoke, Massachusetts
Gas & Electric Department

My responsibilities include the operation, maintenance and planning for steam, electric and hydro generation, transmission and distribution, including negotiations with other utilities.

- 1955 Employed as a licensed Stationary Engineer with the HG&E.
- 1962 Made Assistant Superintendent of the Electric Division.
- 1965 Appointed Superintendent of the Electric Division.
- 1978 Appointed Assistant Manager of HG&E.

In addition to my duties at the HG&E, I have served on various committees related to utility planning and operations as follows:

- NEPPA Power planning committee
- APPA Generation and transmission committee
- MMWEC Planning and Operations Committee
- NEPOOL Planning Committee
- NEPEX Operations Committee
- NEPLAN Generation Task Force
- MMWEC Energy Committee

I have also submitted testimony on behalf of HG&E in several regulatory proceedings.

HG&E AND ITS INTERCONNECTIONS.

HG&E has two 115 kilovolt (kV) interconnections with NE subsidiaries through which it receives most of its power supply. The most recent interconnection is directly with Western Massachusetts Electric Company (WMECO). The other, installed and first energized in 1968, is with WMECO and Holyoke Water Power Company (HWP), which owns a short transmission line (about 200 feet) between HG&E's 115 kV system and WMEC's. HG&E also has a 13.8 kV standby interconnection with HWP. However this interconnection is normally open.

HG&E's resource mix in 1989, compared to New England as a whole, was as follows:

Generation by:	New Eng. %	HG&E %
Nuclear & Pumped Storage	29	73
Fossil Fuel	66	16
Hydro	5	11

HG&E's sources of supply included the following in 1989:

	Capacity	Energy
Own generation:		
Hydroelectric	2,250 kW	9,748 MWh
Steam	18,000 kW	6,708 MWh
Unit contracts, joint ownership, etc.		
Nuclear		
Vermont Yankee	5,410 kW	37,523 MWh
Maine Yankee	3,808 kW	30,297 MWh
Pilgrim #1	5,942 kW	15,293 MWh
Pt. Lepreau	12,220 kW	101,079 MWh
Millstone #3	3,691 kW	22,715 MWh
Other		
New Haven Harbor #1	5,006 kW	32,316 MWh
Wyman #4	4,261 kW	14,407 MWh
MMWEC GT	4,818 kW	2,005 MWh
Northfield Mt.	3,000 kW	(1,218) MWh
PASNY [NYPA]	3,764 kW	21,686 MWh
Canal #2	4,525 kW	23,786 MWh
North Attleboro	3,000 kW	22,176 MWh
Interchange, non-firm, etc.		
NEPEX [net]	n/a	(44,377) MWh
MMWEC exchanges	(6,000) kW	(3,857) MWh
Transmission losses	n/a	(8,167) MWh
TOTAL	73,695 kW	282,120 MWh

HG&E's electric utility operations serve over 20,000 meters. In 1988, peak load exceeded 57 megawatts (mW) and sales exceeded 262,000 MWh. Electric Division operating revenues were \$24,750,216 and operating expenses \$22,783,263.

HG&E maintains over 1100 miles of above-ground and underground power lines.

HG&E provides natural gas service independently of its electric service. Neither subsidizes the other. Competitive advantages of each prevail. For example, HG&E will provide natural gas for cogeneration by an electricity customer.

HG&E is dependent on its interconnections with and through NU to other utilities in New England such as PSNH and NEPCO and their transmission facilities, as well as to utilities in New York, New Brunswick and Quebec. HG&E's ability to provide economical electricity supplies to its customers depends on competition among suppliers of electricity and transmission services.

TRANSMISSION OF POINT LEPREAU (NEW BRUNSWICK) POWER TO H&E
AMOUNTS BILLED BY NEPCO, NU, AND PSNH+MAINE UTILITIES

<u>Year/ Month</u>	<u>NEPCO</u>	<u>NU</u>	<u>MMWEC: PSNH +CMP+MEPCO</u>	<u>TOTAL</u>
<u>1987</u>	9,175	61,164	167,043	277,382
<u>1988</u>				
Oct	3,827.45	4,655	13,071	21,553
Nov	4,190.24	12,434	14,311	30,935
Dec	4,190.24	12,434	35,154	52,778
True-up	n/a	3,490		3,490
2-MO.				
TOTAL	8,380	28,358	50,465	87,203
<u>1989</u>				
Jan	4,190.24	52,711*	25,232	82,133
Feb	4,190.24	26,649	25,232	56,071
Mar	4,190.24	28,149	25,232	57,571
Apr	4,190.24	27,336	25,232	56,759
May	4,190.24	29,774	25,232	59,196
Jun	4,190.24	27,086	31,205	62,481
1/2-YR.				
TOTAL	25,141	191,705	157,365	374,211
Jul	4,190.24	29,711	31,205	65,106
Aug	4,190.24	(63,849)**	31,205	(28,454)
Sep	4,190.24	18,836	7,999	31,025
Oct	4,190.24	18,898	25,403	48,491
Nov	4,190.24	17,962	25,782	47,934
True-up	n/a	(8,366)		(8,366)
Dec	4,190.24	17,844	25,466	47,500
1/2-YR.				
TOTAL	25,141	31,036	147,060	203,237
*****	*****	*****	*****	*****
GRAND				
TOTALS:				
1989	50,283	222,741	304,425	577,449
14 MOS.				
88/89	58,663	251,099	359,890	664,652

* NU bill for January 1989 included \$11,781 for regular transmission charge + \$42,000 adjustment charge for three months, November and December 1988 + January 1989.

** NU August 1989 bill reduces the adjustment charges for all the previous months, November 1988 through July 1989.

NU/HWP TRANSMISSION AGREEMENTS

<u>Agreement and Date</u>	FERC	<u>FERC Dates</u>			Rates*/
	<u>R.S. #</u>	<u>Submit'd</u>	<u>Accepted</u>	<u>Effective</u>	<u>\$/kW-Year and Comments</u>
A. <u>Point Lepreau transmission contracts for NU fraction of Canada-HG&E path</u>					
HG&E	11-1-82	HWP 37	5-11-83	6-21-83	2-1-83 \$ 5.38 as of 10-31-88
HG&E	11-1-88	*****Not filed with the FERC*****			\$24.27 as of 1-1-89
HG&E	4-25-90	*****Not filed with the FERC*****			\$11.06 term:10-31-94
B. <u>NYPA transmission contracts for NU fraction of path; starting @ N.Y. border</u>					
Wallingford	7-1-85	HWP 38	9-30-85	12- -85	7-1-85 \$ 9.83 **/
Norwalk 3rd	7-1-85	HWP 39	9-30-85	12- -85	7-1-85 \$ 3.67 a/
S. Norwalk	7-1-85	HWP 40	9-30-85	12- -85	7-1-85 \$ 3.67 a/
Westfield	7-1-85	HWP 41	11-17-86	1-9-87	7-1-85 \$ 9.83 **/
Chicopee	7-1-85	HWP 42	11-17-86	1-9-87	7-1-85 \$ 9.83 **/
HG&E	7-1-85	HWP 43	11-17-86	1-9-87	7-1-85 \$ 9.83 **/
UICO	7-1-85	HWP 44	11-17-86	1-9-87	7-1-85 \$ 9.83 **/
S. Hadley	7-1-85	HWP 45	11-17-86	1-9-87	4-23-86 \$ 9.83 **/
C. <u>Other transmission agreements</u>					
Mt. Tom	10-14-57	HWP 2 & HP&E 1	***/		
NU G&T	6-1-70	HWP 22 & HP&E 13			
NEPOOL	9-1-71	HWP 24 & HP&E 15	LV/PTF: \$ 5.70; EHV/PTF: \$ 2.75		
CMEEC Trans	9-25-80	HWP 31 & &HP&E 21	10-31-80	3-13-80	10-1-80 A:\$3.67; B:\$3.62; C:\$1.56; D:\$2.62; E:\$3.67
HG&Eb/	5-15-80	HWP 32	6-24-82	8-9-82	c/ d/
Chicopee	11-1-88	*****Not filed with the FERC*****			\$11.06

Sources: MUSCO responses to HG&E data requests numbers Q-MUSCO-5, 6 & 7 and to HG&E follow-up data requests HG&E-F-1, F-2 and F-4, and documents cross referenced in those responses.

Abbreviations: See next page.

*/ Unless otherwise indicated, rates shown are as of 2-1-90 per NU response.

**/ Contract termination date 6-30-95.

*** / Contract termination date 6-30-90.

a/ CMEEC Rate. Contract reassigned to CMEEC as of 1-8-90.

b/ Interconnection agreement, with about 200 ft of HWP "transmission" to WMECO.

c/ Supersedes earlier agreement effective 1-1-73.

d/ WMECO: \$23,900/year; HP&E: \$500/year + \$110/month.

<u>Agreement and Date</u>	<u>FERC R.S. #</u>	<u>Transmitting Utilities</u>	<u>Type of Service</u>	<u>Rates*/ \$/kW-Year</u>
<u>D. Point Lepreau transmission contracts for NU fraction of Canada-HG&E path</u>				
HG&E 11-1-82	HWP 37	CL&P/WMECO/HWP	NON-FIRM	\$ 5.38 as of 10-31-88
HG&E 11-1-88	=none=	CL&P/WMECO/HWP	NON-FIRM	\$24.27 as of 1-1-89
HG&E 4-25-90	=none=	CL&P/WMECO/HWP	NON-FIRM	\$11.06 term: 10-31-94

E. NYPA transmission contracts for NU fraction of path; starting N.Y. border

Wallingford	7-1-85	HWP 38	CL&P/WMECO/HWP	FIRM	\$ 9.83
Norwalk 3rd	7-1-85	HWP 39	CL&P/WMECO/HWP	FIRM	\$ 3.67
S. Norwalk	7-1-85	HWP 40	CL&P/WMECO/HWP	FIRM	\$ 3.67
Westfield	7-1-85	HWP 41	CL&P/WMECO/HWP	FIRM	\$ 9.83
Chicopee	7-1-85	HWP 42	CL&P/WMECO/HWP	FIRM	\$ 9.83
HG&E	7-1-85	HWP 43	CL&P/WMECO/HWP	FIRM	\$ 9.83
UICO	7-1-85	HWP 44	CL&P/WMECO/HWP	FIRM	\$ 9.83
S. Hadley	7-1-85	HWP 45	CL&P/WMECO/HWP	FIRM	\$ 9.83

F. Other transmission agreements

Mt. Tom x/ 10-14-57	HWP 2 & HP&E HP&E 1		N/A	
NU G&T 6-1-70	HWP 22& CL&P/HELC/HP&E/ HP&E 13 HWP/WMECO		N/A	
NEPOOL 9-1-71	HWP 24& NEPOOL SIGNA- HP&E 15 TORIES		LV/PTF: \$ 5.70; EHV/PTF: \$ 2.75	
CMEEC Trans 9-25-80	HWP 31 CL&P/HELC/HP&E/ &HP&E 21 HWP/WMECO	FIRM	A:\$3.67; B:\$3.62; C:\$1.56; D:\$3.62; E:\$3.67	
HG&E 5-15-80	HWP 32 WMECO/HWP			
Chicopee 11-1-88	=none= CL&P/NU			\$11.06

* / Rates from previous page.

x / Buyers are NEPCO, WMECO and HWP.

Abbreviations:

CL&P = Connecticut Light & Power Company [NU sub.]
CMEEC = Connecticut Municipal Electric Cooperative
HELC = Hartford Electric Light Company [absorbed by CL&P]
HG&E = Holyoke Gas & Electric Department
HP&E = Holyoke Power & Electric Company [NU & HWP sub.]
HWP = Holyoke Water Power Company [NU sub.]
NYPA = New York Power Authority = PASNY =
= Power Authority of the State of New York
UICO = United Illuminating Company
WMECO = Western Massachusetts Electric Company [NU sub.]