DE 04-177

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

Transition and Default Service Rates

Order on Motions for Rehearing

O R D E R N O. 24,552

December 2, 2005

I. BACKGROUND AND PROCEDURAL HISTORY

On July 7, 2005, Public Service Company of New Hampshire (PSNH) filed a motion for rehearing pursuant to RSA 365:21 and RSA 541:3 with the New Hampshire Public Utilities Commission (Commission) concerning Order No. 24,473 (June 8, 2005) and a related explanatory document issued by the Commission at the Company's request on June 21, 2005. In Order No. 24,473, the Commission determined after hearing that PSNH would thenceforth be allowed a return on equity (ROE) of 9.63 percent with respect to the generation facilities owned by the Company and used by it in the provision of Transition and Default Service. *See* RSA 369-B:3, IV(b)(1)(A) (requiring PSNH to use its generation facilities in this manner).

Prior to October of 2004, a single allowed return on equity of 11 percent, first established in 1997, applied to the calculation of all of PSNH's retail rates. These rates include, *inter alia*, a Delivery Service charge and an energy charge, the latter applicable only to those customers who purchase energy from PSNH (via Transition or Default Service) as opposed to a competitive supplier. Approving a settlement agreement in a rate case, the Commission established new Delivery Service rates for PSNH effective beginning in October 2004 and specifically determined that a single allowed ROE would no longer apply to all of PSNH's assets but, rather, that the allowed ROE for the generation assets could be separately calculated from

that applicable to the transmission and distribution facilities used to provide Delivery Service. *See* Order No. 24,369 (September 2, 2004).

The Commission opened this docket in late 2004 for the purpose of fixing PSNH's Transition and Default Service rate to be effective on February 1, 2005. After hearing, the Commission established new transmission and distribution service rates, but rejected a proposal by the Office of Consumer Advocate (OCA) to change the allowed ROE applicable to the generation assets at that time because of a lack of record evidence, deciding instead to consider that issue in a separate phase of the proceeding. *See* Order No. 24,427 (Jan. 28, 2005), *reh'g denied,* Order No. 24,443 (March 24, 2005).[1] The Commission conducted a hearing on May 17 and 18, 2005, and thereafter issued the order that is the subject of the PSNH rehearing motion.

PSNH, OCA and the Commission Staff each presented expert testimony from a witness with a background in economics. At hearing, PSNH took the position that it is entitled to an allowed ROE of 11.4 percent on its generation assets. The OCA urged the Commission to approve 9.3 percent as the appropriate figure whereas Staff recommended 9.08 percent. Adopting various aspects of each witness's approach, the Commission established an allowed ROE of 9.63 percent in the order of which PSNH seeks rehearing.

The OCA filed an opposition to the PSNH motion for rehearing on July 12, 2005. On August 10, 2005, the Commission issued a secretarial letter scheduling a technical session for August 24, 2005, for the purpose of having the parties and Staff discuss and possibly reach agreement on two questions arising out of the motion papers, both relating to possible errors in certain calculations contained in Order No. 24,473. The technical session took place as

[1] The Commission adjusted the PSNH Transition and Default Service rates on August 1, 2005 in Order No. 24,498.

scheduled and, on August 31, 2005, Staff filed a report indicating that PSNH, OCA and Staff had reached agreement with respect to one of the two questions posed.

While these matters relating to PSNH's allowed return on equity were proceeding, the Commission received a separate rehearing motion relating to the phase of this docket in which the Commission most recently fixed PSNH's rate for Transition and Default Service. On August 15, 2005, the Commission received a letter from State Representative Jim Ryan of Franklin raising certain questions about Order No. 24,498 (August 1, 2005). By secretarial letter issued on September 2, 2005, the Commission advised the parties that it would treat Representative Ryan's letter as a motion for rehearing and that pleadings in response to the motion would be considered timely if filed within ten days. PSNH filed an opposition to the motion on September 2, 2005.

For the reasons that follow, the PSNH rehearing motion is granted in part and denied in part. Order No. 24,473 is accordingly modified, as explained fully below. The separate rehearing motion filed by Representative Ryan concerning the Commission's August 1, 2005 rate decision is denied, for reasons that are also set forth below.

II. SUMMARY OF THE PSNH MOTION

PSNH's first contention is that the Commission committed a mathematical error in Order No. 24,473. As PSNH notes, the Commission agreed with the Company's expert witness, Dr. Roger Morin, as well as the expert who testified for OCA, Stephen Hill, that PSNH's generation operations are a riskier business from an investment perspective than the transmission and distribution portions of PSNH's operations. *See* Order No. 24,473, slip op. at 33. Accordingly, the Commission decided it is "appropriate to establish a return based on vertically integrated electric utilities and then to disaggregate in a way that will allow

consideration of a modest generation-only premium to produce the final equity return for generation assets." *Id.* Without waiving its objections to the determinations that led the Commission to that point, PSNH's contention is that the Commission erred when it took the low end of Dr. Morin's recommended range for such a premium, 64 basis points, and applied one-third, or 21 basis points, to the previously determined figure for a vertically integrated electric utility of 9.42 percent.

According to PSNH, the Commission relied on an impermissible "off-the-record understanding" that the Company's rate base comprises one-third generation assets and two-thirds transmission and distribution (T&D) assets. PSNH Motion at 5. PSNH further asserts that the Commission applied this one-thirds to two-thirds formula in a mathematically incorrect way, concluding that the correct "adder" under these assumptions would be 43 basis points and the correct return on equity would be 9.85 percent. PSNH further contends that its generation assets actually account for 28 percent of its state-jurisdictional rate base. Thus, according to PSNH, applying the correct ratio and correcting for the mathematical error would yield a return on equity of 9.88 percent.

Apart from the allegations of mathematical and factual error, PSNH further contends it is entitled to rehearing because the return on equity approved by the Commission is unconstitutionally confiscatory, failing to provide the Company with a rate of return that is commensurate with returns on investments in other enterprises having corresponding risks. Directing the Commission's attention to Exhibits 16, 20 and 21, PSNH contends that "the record evidence specifically sets forth *dozens* of allowed returns on equity *for vertically integrated electric utilities or distribution electric utilities*, and *every single one of them* is higher than the 9.63 % return on equity established by the Order." PSNH Motion at 10 (emphasis in original).

PSNH notes that Exhibits 16 and 20 set out the proxy groups used by the Staff and OCA witnesses, respectively, in applying the Discounted Cash Flow (DCF) method of estimating return on equity. According to PSNH, every company chosen either by Staff witness Maureen Sirois or OCA witness Mr. Hill as having risk comparable to that of PSNH had an allowed return on equity above 9.63 percent. Indeed, according to PSNH, the average of the allowed returns on equity for these companies is 11.63 percent. This, according to PSNH, is "unequivocal evidence that the Commission's formulaically-derived 9.63 % decision is terribly wrong." *Id.* at 11. PSNH contends that the Commission's determination that the generation business segment is riskier than distribution-only or vertically integrated electric utilities (thus justifying a higher return for the generation segment) further demonstrates, in PSNH's view, the constitutional infirmity of an ROE of 9.63 percent.

PSNH draws the Commission's attention to the recent decisions of other utility regulatory commissions contained in Exhibit 21. According to PSNH, that exhibit lists decisions of commissions in South Carolina, Kansas, Washington, Utah, Missouri, Arizona, Vermont and Texas, during the first quarter of 2005, that established allowed returns on equity of 10 percent or higher.

The Company's next contention is that the 9.63 percent return on equity is unreasonable when compared to the allowed ROE of Federal Energy Regulatory Commission (FERC)-regulated "reliability must run" (RMR) generating plants. *Id.* PSNH noted that its witness described such facilities as "pure play" proxies for PSNH's generating business and that the RMR facilities based in New England are "the best pure play to PSNH's generation activities." *Id.* at 11-12. PSNH notes that the FERC has approved a return on equity of 10.88 percent for the New England RMRs.

According to PSNH, the Commission improperly justified its ROE determination not by comparing PSNH's allowed return with those of the proxy group but, rather, based on "anecdotal comparisons." *Id*. at 13. Specifically, PSNH contends that the Commission improperly relied upon a letter to the editor published in a trade journal, a "conservative" assessment provided by PSNH parent company Northeast Utilities (NU) to shareholders with respect to the ROEs its subsidiaries were likely to be allowed by regulatory agencies, and a decision by NU to increase its dividend. *Id*.

PSNH invokes a variety of judicial and Commission decisions in support of its contention that the Commission violated its constitutional obligation to establish a "just and reasonable" return on equity that falls within the "zone of reasonableness," defined as "the lowest rate that is not confiscatory and the highest rate that is not excessive and extortionate." *Id*. at 13-14 (quoting *New England Tel. & Tel. Co. v. State*, 104 N.H. 229, 232, 234 (1962) (other citations omitted). Quoting a 2004 Commission order, PSNH points out that "the lower boundary of the zone of reasonableness should be a rate that, at a minimum, is sufficient to yield the cost of the debt and equity capital necessary to provide the assets required for the company's responsibility." *Id*. at 14 (quoting *Verizon New Hampshire*, Order No. 24,265 (Jan. 16, 2004), slip op. at 40, citations and internal quotation marks omitted).[2]

According to PSNH, the 9.63 percent ROE established in this proceeding falls outside of the zone of reasonableness because the allowed return is below that of every other company identified by either Staff or the OCA as companies with comparable risks. Further, citing *Chicopee Manufacturing Co. v. Public Service Co. of New Hampshire*, 98 N.H. 5, 11

[2] PSNH goes on to contend that the Commission made certain errors, relating to the description of the upper boundary of the zone of reasonableness, in Order No. 24,265. Inasmuch as that order has recently been vacated by the U.S. District Court for the District of New Hampshire for reasons related directly to an interpretation of the Telecommunications Act of 1996, PSNH's concerns about that order need not be addressed here. The Commission did not rely on the legal analysis contained in the *Verizon* order in deciding the ROE phase of this case.

(1953), PSNH contends that it is entitled to an ROE that is not simply equal to the cost of capital but exceeds that cost, given the need to absorb embedded costs, maintain confidence in the financial soundness of the company and enable the company to attract capital.

PSNH additionally contends that it is entitled to an ROE at the upper end of the zone of reasonableness in light of its "management efficiencies and superlative stewarding of its generating business." *Id*. at 17. According to PSNH, the Commission's order has actually punished the Company for its good and efficient management. PSNH refers to language in the Order to the effect that PSNH has a record of avoiding imprudence disallowances in connection with its generation assets.[3] In the view of PSNH, its management

> has gone above-and-beyond the minimum standards by, *inter alia*, pursuing legislative changes needed to move forward with the Northern Wood Power Project,[4] by taking risks such as beginning construction of that Project while a Supreme Court challenge was pending; by using below-the-line shareholder dollars to aggressively lobby the legislature not to pass unrealistic and uneconomic emissions reductions which would hurt retail energy costs; [and] by challenging draconian water quality limitations in the relicensing of the Merrimack Hydro Project resulting in more reasonable conditions and lower costs to retail customers.

Id. at 19. In the view of PSNH, not only does the Commission's failure to consider the Company's superlative management result in an ROE that is unjust and unreasonable, but it also provides significant disincentives to the taking of future risks by management.

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[3] The phrase "imprudence disallowances" refers to RSA 369-B:3, IV(1)(A), which limits PSNH to recovering its "actual, prudent and reasonable costs" of providing energy to customers. In connection with the PSNH generation assets, expenses disallowed for recovery in rates typically arise out of the need to purchase replacement power on the regional wholesale power market when one of the PSNH generation facilities has an unplanned outage. In these circumstances, the Commission's inquiry focuses on whether the outage was the result of imprudent operation or maintenance of the generation facility in question. If the Commission finds imprudence, PSNH rather than its customers bears the additional cost of replacement power.

[4] The Northern Wood Power Project, now under construction, involves replacing one of the three primarily coal-fired boilers at PSNH's Schiller Station in Portsmouth with one capable of burning wood as well as coal. The project was the subject of the New Hampshire Supreme Court's decision in *Appeal of Pinetree Power, Inc*., 152 N.H. 92 (2005).

Next PSNH contends that the Commission erred by relying on a single methodology to calculate the ROE. According to PSNH, both its expert witness and the expert witness for the OCA testified at length about why the use of a single methodology is inappropriate. PSNH accuses the Commission of paying "lip-service" to the notion of using other methodologies as a check of the reasonableness of the result derived from the DCF model. *Id*. at 24. As evidence, PSNH contends that the Commission ignored the fact that the Staff witness derived an ROE of 9.82 percent when using the risk-premium method as a check of her own analysis.

According to PSNH, the Commission improperly relied on calculations that were performed outside the record, thereby violating PSNH's right to due process as well as the relevant provisions of the Administrative Procedures Act by preventing the Company from challenging the assumptions and data that formed the basis of the Commission's decision. PSNH complains that, even after reviewing the work papers provided by the Commission on June 21, 2005, it could not replicate the calculations leading to the 9.42 percent "base" ROE established by the Commission. PSNH raises certain specific concerns, generally relating to the use by the Commission of more recent data relating to the proxy group companies than that in the testimony of OCA witness Hill, despite having adopted his proxy group. In any event, according to PSNH, the calculation of an appropriate ROE is an art rather than a precise science, and by relying on a "mathematically precise" ROE the Commission has run afoul of established New Hampshire Supreme Court precedent. *Id*. at 25.

PSNH complains that Order No. 24,473 fails to accord due recognition to certain particular risks to investors. Specifically, PSNH refers to the so-called anti-CWIP statute, RSA 378:30-a, and the possibility of imprudence-related cost disallowances. PSNH accuses the

Commission of actually reducing the Company's generation-related ROE because of what the Commission perceived to be the lack of imprudence risk.

Finally, PSNH alleges that the Commission has departed from its RSA 363:17-a duty to serve as the arbiter of the interests of customers and those of shareholders. According to PSNH, the generation ROE established by the Commission will have a disproportionate effect on shareholders as opposed to customers. PSNH contends that the impact on shareholders will be 20 times that on customers, a disparity PSNH argues the Commission should have considered.

III. OPPOSITION OF THE OFFICE OF CONSUMER ADVOCATE

OCA agrees with PSNH that the Commission erred in allocating the "adder" for generation-related risk on a one-third to two-thirds basis, but contends nevertheless that the record contains ample evidence to justify the Commission's reduction to the generation risk premium advocated by PSNH's expert witness. According to OCA, this is because (1) the PSNH witness relied entirely on beta[5] as a measure of risk, which is inaccurate, (2) he used gas distribution companies as proxies for the risk associated with electric transmission and distribution companies, despite having testified in another jurisdiction that gas distribution companies have risk equal to that of vertically integrated electric utilities, (3) he used oil and gas exploration companies as proxies for fully integrated generation operations with no proof that they have similar risk profiles, (4) he failed to take into account that PSNH has no higher risk nuclear capacity in its generation portfolio, (5) he failed to take note of the fact that PSNH's stranded cost recovery mechanism "effectively guarantees" recovery of its generation costs, and (6) he relied on an "overstated" market risk premium to estimate a generation risk premium. OCA Objection to Rehearing Motion at 2.

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[5] According to PSNH witness Morin, "[t]he beta coefficient indicates the change in the rate of return on a stock associated with a one percentage point change in the rate of return on the market, and thus measures the degree to which a particular stock shares the risk of the market as a whole." Exh. 7 at 27.

According to OCA, when its expert witness recalculated the "base" return on equity using the methodology and assumptions endorsed by the Commission in Order No. 24,473, he obtained the figure of 9.29 percent. This, according to OCA, "may well have moved the return on equity number in a different direction than claimed by PSNH, which only points up the weakness of relying solely upon an arithmetic exercise to determine the cost of capital." *Id.*

OCA rejects PSNH's contention that the ROE approved by the Commission is confiscatory. According to the OCA, the DCF model has long been a primary determinant of allowed returns on equity for regulated industries – and the Commission's base ROE determination was at the upper end of the range offered by the Staff and OCA witnesses. Thus, according to OCA, the Commission's result is well within the range of credible evidence on the record.

Further, in the view of OCA, PSNH is purposely confusing earned returns with cost of capital, just as its witness did in testimony. According to OCA, what a company earns on its books is the result of many operations-related factors, whereas what investors require in order to provide their capital to the company is found in the market price of the firm as opposed to its income statement. In OCA's view, "[t]he earned return is equivalent to the cost of capital only by happenstance." *Id*. at 3.

OCA contends that the practice of setting a utility's allowed ROE based on what other utilities were earning disappeared long ago, with the advent of methodologies – e.g., the DCF method – for estimating directly the return required by the utility's investors. According to OCA, "what rate of profit another utility is allowed to earn under different economic and regulatory circumstances in another jurisdiction is simply not germane to the current cost of common equity." *Id*. at 4.

OCA rejects PSNH's argument that the ROE established by the Commission is arbitrary. According to OCA, while PSNH can cite utilities that have higher allowed ROEs, OCA cited utilities with lower figures. According to OCA, the Commission also relied on evidence that recent research shows that investors' required returns for stocks in general are below 10 percent. In that light, according to OCA, the 9.63 percent return allowed here by the Commission is actually generous.

In the view of OCA, if the Commission should reward PSNH for good management of its generation assets as PSNH suggests, then the Commission must also adjust the ROE downward to reflect the reduced risk arising out of the applicable cost recovery mechanism. OCA acknowledges that the Commission's DCF analysis is formulaic, but notes that it is consistent with every DCF analysis offered by the various expert witnesses who testified. OCA contends that the Commission's result is also supported by OCA's corroborative methodologies, all of which suggested an ROE of less than 9.6 percent.

OCA contends that nothing precluded the Commission from applying the sample group of OCA witness Hill to the DCF methodology recommended by Staff witness Sirois. OCA characterized as a "red herring" the PSNH contention that the Commission improperly relied on evidence outside the record, positing that the Commission simply reviewed the record evidence, took what it viewed as the most reliable evidence and the best of the recommended methodologies and used them to calculate an ROE. *Id*. at 6. Finally, OCA maintains that the only evidence in the record on imprudence risk supports a determination that such risk is "minuscule." *Id*.

IV. CALCULATION ERRORS

In the secretarial letter of August 10, 2005, the Commission asked the parties and Staff to consider these two questions:

> 1. Whether, as alleged at pages 5-7 of the PSNH motion, the Commission committed a mathematical error in calculating the "adder" to the base ROE to the ROE applicable to the generation portion of PSNH's business which, if corrected, would yield an "adder" of approximately 42 basis points.
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> 2, Whether, as alleged at page 2 of the OCA's objection, a miscalculation occurred in the three-stage DCF which, if corrected, would result in a base ROE of 9.29 percent.

According to Staff's report of the technical session convened on August 24, 2005, the active participants in this phase of the docket – PSNH, OCA and Staff – were able to agree on an answer to one but not both of the questions posed.

Specifically, there was agreement that as the result of a mathematical error in the application of the three-stage DCF model the 9.42 "base" ROE reflected in Order No. 24,473 should have been 9.3 percent. Staff noted that the various calculations of the participants yielded two slightly different results – 9.29 percent and 9.3 percent – but that the participants agreed the difference is not mathematically significant. Therefore, the parties recommended that the Commission correct the 9.42 percent figure in Order No. 24,473 to 9.3 percent, without prejudice to any PSNH arguments beyond the contention that the original figure was the result of a mathematical error.

PSNH, OCA and Staff were not able to reach agreement on whether the Commission made a mathematical error in calculating the "adder" used to derive the ROE applicable to the PSNH generation portfolio. According to Staff's report of the discussions, there was uncertainty as to how the Commission defined the base ROE. According to Staff, it would be helpful to clarify whether the base ROE applies to a hypothetical vertically integrated

utility – one with PSNH's general attributes and a 50/50 mix of generation and transmission/distribution assets – or to PSNH with its actual mix of such assets. As noted in PSNH's pleading, the Commission assumed the ratio of generation assets to transmission distribution assets at PSNH is one-third to two-thirds, whereas PSNH takes the position on rehearing that the actual ratio is 28 percent to 72 percent.

V. COMMISSION ANALYSIS

A. Issues as to which Rehearing Should be Granted

RSA 541:3 authorizes the Commission to grant rehearing with respect to a previously issued order if, within 30 days of the order, an interested party files a motion that states good reason for such rehearing. In two particular respects, PSNH's motion states such good reason.

We made clear in Order No. 24,473 that we intended to follow longstanding precedent and adopt the Discounted Cash Flow (DCF) methodology as the basic tool in ascertaining what return on equity best approximates the return investors would require on the PSNH generation portfolio given the risks associated with such an investment. Specifically, we reaffirmed the use of the Three-Stage DCF model employed by Staff witness Sirois in her testimony. As Ms. Sirois testified, the Single-Stage DCF model "assumes the value of a common stock can be expressed as the present value of a stream of dividends that grows at the same rate into infinity" whereas investors often "expect the short run growth rate of a company to differ from its long run growth rate." Exh. 17 at 12. The Three-Stage model "takes into account the fact that expected growth rates of earnings and dividends quoted by financial publishing companies reflect expectations in the short run (3 to 5 years) and are not intended to reflect expectations in the long run." *Id.* "The Three-Stage DCF model accounts for this

inherent limitation in the data by assuming that dividends grow at a different rate in the long run." *Id.*

We note the distinction between the two DCF models here because, as suggested by PSNH and OCA, the particular complexity of the Three-Stage model led to a mathematical error in Order No. 24,473. When we calculated PSNH's base ROE using the Three-Stage model, we applied the detailed mathematical formula set forth by Ms. Sirois at page 13 of her prefiled direct testimony. *Id*. at 13. An incorrect calculation occurred in applying the formula applicable to the second-stage of the model. When applying the formula correctly, the result moves from the 9.42 percent set forth in Order No. 24,473 to either 9.29 or 9.3 percent, depending on rounding. Accordingly, and as suggested in Staff's August 31, 2005 report, we grant PSNH's rehearing motion insofar as it requests a correction of the base ROE previously determined as 9.42 percent and now apply a base ROE of 9.3 percent.

We further find good cause for rehearing with respect to the calculation that converted the base ROE to the ROE applicable to the PSNH generation portfolio. When we determined that it is "appropriate to establish a return based on vertically integrated electric utilities and then to disaggregate in a way that will allow consideration of a modest generation-only premium to produce the final equity return for generation assets," Order No. 24,473 at 39, we were employing Dr. Morin's general approach. However, we used a different proxy group and therefore we derived an overall base ROE different from Dr. Morin. After we determined the overall ROE, we measured the difference in risk between transmission and distribution (T&D) and generation assets, employed the low end of Dr. Morin's range, and then performed a mathematical calculation, using PSNH's actual weighting of T&D and generation assets, to derive the ROE for generation assets.

Upon review of the motion papers, we find it necessary to grant rehearing with respect to the way in which we allocated the risk differential to derive the ROE on generation. Specifically, we erred by taking the step of assigning significance to the actual asset mix of PSNH. Order No. 24,473 calculated the risk differential by adopting the low end of Dr. Morin's range of 64 to 86 basis points between the ROE applicable to the T&D segment of PSNH's business and that of its generation business and then allocating the differential in a one-third to two-thirds manner based on the actual weighting of PSNH's generation and T&D assets. Contrary to what we determined in Order No. 24,473, the actual asset mix of PSNH is not relevant to allocating the differential, inasmuch as the task is to develop a return on the basis of a relevant proxy group that would then apply to PSNH's generation assets, whatever their extent might be.

Our method of finding the ROE for the vertically integrated PSNH was, as previously stated, based on Mr. Hill's proxy group. We concluded that his proxy group was the best representation of a vertically integrated PSNH available in the record. In selecting a proxy group, Mr. Hill "screened all the electric utility firms followed by Value Line." He then "…selected companies from that group that had a continuous financial history and had at least 70% of operating revenue generated by electric utility operations." He further "eliminated companies that were in the process of merging or being acquired and had realized an upward stock price shift due to that activity or companies that recently cut or omitted dividends." Finally, he "eliminated from consideration companies that are only 'wires' companies, which have less operational risk than fully integrated electrics, in order to properly match the risk of the sample group with PSNH." Exh. 14, at 25-26. Other than to eliminate companies that are "wires only", he did not discriminate based on a company's actual T&D versus generation asset mix. It

must be concluded, therefore, that the proxy group as a whole represents the industry average T&D versus generation asset mix.[6]

Using PSNH's actual weighting of T&D and generation assets to determine the return applicable to PSNH's own generation assets in these circumstances would be logically unsound. Consequently, based on Dr. Morin's testimony that the "power generation and T&D segments represent one half of the vertically integrated utility portfolio" (Ex. 7, p. 80), we will apply one-half of the risk differential above the base ROE.

Accordingly, we grant PSNH's rehearing motion insofar as it requires the corrections and clarifications set forth above. The resulting 32 basis-point adjustment to a vertically integrated return on equity of 9.3 percent results in an allowed return on equity for PSNH's generation assets of 9.62 percent.

B. Constitutional Principles

In reviewing the remainder of PSNH's contentions in its rehearing motion, it is helpful to set forth the constitutional framework within which a case such as this arises. In so doing, we note that the bedrock contention of PSNH's motion is that the return on equity we have established in this proceeding amounts to an unconstitutional taking of the Company's property without just compensation, as proscribed by the Fifth and Fourteenth Amendments to the U.S. Constitution as well as Part I, Article 12 of the New Hampshire Constitution.

In *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944), the U.S. Supreme Court set out the relevant constitutional principles, which the New Hampshire Supreme Court has carefully followed in connection with state constitutional jurisprudence, *see, e.g., Petition of Public Service Co. of N.H.*, 130 N.H. 265, 274-75 (1988). The fixing of rates

[6] The selection of proxy groups is always challenging because no two companies are identical, and each expert does not necessarily focus on the same criteria for inclusion in the proxy group. The only evidence in the record on this issue is Dr. Morin's industry average of 50 percent generation and 50 percent T&D.

that are just and reasonable, and therefore not confiscatory in a manner that transgresses the U.S. Constitution, "involves a balancing of the investor and the consumer interests." *Hope,* 320 U.S. at 603.[7] "From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital." *Id*. (citation omitted).

In light of *Hope*, "[a] just and reasonable rate is one that, after consideration of the relevant competing interests, falls within the zone of reasonableness between confiscation of utility property or investment interests and ratepayer exploitation." *Public Service Co*., 130 N.H. at 274 (citations omitted). "[T]he constitution is only concerned about the end result of a rate order, *i.e.*, that it be just and reasonable. Under *Hope*, the particular ratemaking methodology employed by the regulatory agency is, for the most part, constitutionally irrelevant. The only limitation on the methodology is that it produce neither confiscatory nor exploitative rates." *Id*. at 275 (citing *Hope*, 320 U.S. at 602).

"This general standard has been reflected over the years in the rule that a utility's threshold entitlement is to a rate of return equal to the cost of capital." *Appeal of Public Service Co*. of N.H., 130 N.H. 748, 751 (1988) (citations omitted). "The cost of capital is understood to

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[7] In the circumstances of this case, it is worthwhile to remain mindful of why a government-established rate that is less than just and reasonable is unconstitutionally confiscatory. As the Court noted in *Hope*, ratemaking "is but one species of price fixing . . . . [and] [t]he fixing of prices, like other applications of the police power, may reduce the value of the property which is being regulated." *Hope*, 320 U.S. at 601 (citations omitted). In other words, the assumption on which *Hope* rests is that a rate is unconstitutionally confiscatory when it so reduces the value of the property in question that the government has effectively taken it without providing just compensation.

be what a utility must receive to maintain its credit, to pay a return to the owners of the enterprise, and to insure the attraction of capital in amounts adequate to meet future needs." *Id*. (citation and internal quotation marks omitted). When the Commission fixes a utility's cost of equity capital, the relevant determinations "depend for their validity upon the integrity of the reasoning process by which a series of relevant competing factors are evaluated in relation to each other." *Id*.

Historically, the New Hampshire Supreme Court has been very cautious about using the *Hope* principles to find wanting a decision of the Commission fixing a regulated utility's return on equity. *See, e.g., Public Service Co.,* 130 N.H. at 753-54 (rejecting utility's contention that it was constitutionally entitled to an additional 400 basis points); *Appeal of Conservation Law Foundation of New England, Inc*., 127 N.H. 606, 635 (1986) (noting that "it is realistic to stress the role that judgment must play in setting a rate of return"); *New England Tel. & Tel. Co. v. State*, 104 N.H. 229, 236 (1962) (sustaining findings and conclusions of Commission but remanding for updating of test year, noting that in fixing return on equity "[t]he Commission is not compelled to accept the opinion evidence of any one witness or of any group of witnesses"); *New England Tel. & Tel. Co. v. State*, 104 N.H. 229 (1962) (similar); *New England Tel. & Tel. Co. v. State*, 98 N.H. 211 (1953); *Chicopee Mfg. Co. v. Public Service Co. of N.H.*, 98 N.H. 5 (1953) (similar); *New England Tel. & Tel. Co. v. State*, 95 N.H. 353, 361 (1949) (vacating decision of Commission on other grounds, noting that fixing a rate of return is "peculiarly within the discretion of the Commission"); *but see New England Tel. & Tel. Co. v. State,* 113 N.H. 902 (1973) (vacating ROE determination because Commission failed to take into account inflation-related attrition). This is only logical, since the Constitution mandates not a particular answer but, rather, a rate that falls within a zone of reasonableness, a level of

flexibility that resonates with a standard of appellate review that will leave Commission orders intact unless there is an error of law or the utility demonstrates by a clear preponderance of the evidence that the decision was "unjust or unreasonable or reflects an abuse of [the Commission's] discretion." *Public Service Co*., 130 N.H. at 750 (citation omitted).

C. Application of the Principles in Order No. 24,473

At hearing, PSNH, OCA and the Commission Staff each presented an expert witness who opined as to what return on equity a rational investor would reasonably expect in order to devote capital to PSNH's generation business as opposed to other possible investments. Rather than adopt entirely the recommendations of any one witness, we found merit in certain aspects of each witness's opinion.

The first question we confronted was what methodology or methodologies to use. Noting that, historically, the Commission had accepted the DCF method to determine return on equity, the Commission adopted the approach of Staff witness Sirois, which relied principally on the DCF method. We rejected the proposal of PSNH witness Morin, which used a variety of models, and a variety of different inputs within each model.

According to Dr. Morin, "there is no proof that the DCF produces a more accurate estimate of the cost of equity than other methodologies" and "there is no single model that conclusively determines or estimates the expected return for an individual firm." Exh. 7 at 16. Taking note of Dr. Morin's testimony that the DCF method is neither more nor less accurate than other methodologies, and also noting that the combined-methodologies approach advocated by Dr. Morin was not transparent, we adopted Staff's recommendation because it was consistent with longstanding Commission precedent. Likewise, we declined to adopt the approach of OCA

witness Hill which, although less critical of DCF, also employed a variety of methods for estimating investor expectations as to a reasonable return.

We did not, however, simply rely on Ms. Sirois' application of the DCF model. A central aspect of the model involves the assembly of an appropriate "proxy group" – i.e., a group of companies with attributes similar to that of the firm under review, such that, as a group, their actual performance can stand as a proxy for that of PSNH. We employed the proxy group of 12 companies recommended by OCA witness Hill as we placed more confidence in Mr. Hill's group of 12 companies than the small group of 8 firms developed by Ms. Sirois. In so doing, we found the much larger proxy group recommended by Dr. Morin to be unhelpful, in part because it included gas distribution companies whose risks and circumstances were too different from those faced by PSNH. It should be stressed that we did not develop our own proxy group; rather, we accepted the recommendations of Mr. Hill because we determined that his criteria yielded a proxy group whose risk profile better approximated that of PSNH.

As noted in Order No. 24,473, once the proxy group has been selected the next step in the DCF model is to calculate an expected dividend yield for the proxy group, by identifying the group's actual dividend yield in the aggregate and then adjusting it to reflect future growth. The three witnesses did not use the same method to develop a figure for actual dividend yield. We found the method employed by Ms. Sirois to be the most appropriate; it involved employing a recent 30-day average of the daily high and low stock prices of the proxy companies.

It should be stressed here, because PSNH has concerns about this course of action, that we did not use the actual figures in Ms. Sirois' testimony, which was filed in April of 2005. Rather, we employed the principle she advanced and used the most recently available 30-

day average of daily high and low stock prices as of our issuance of Order No. 24,473 several weeks later. This was a necessary step as a matter of logic, given that our decision not to use the proxy group of Ms. Sirois (and to replace it with the larger group used by Mr. Hill) precluded using the actual figures in her testimony.

As already noted, Ms. Sirois recommended a specific version of the DCF model known as the "Three-Stage DCF." Unlike the conventional, Single-Stage DCF, the Three-Stage DCF model does not assume that a company's growth rate will be constant in perpetuity. Although Dr. Morin used the Single-Stage version of the model when doing DCF calculations, we found the use of the Three-Stage DCF sound and noted that no party challenged Ms. Sirois' use of it.[8]

We have already noted that (1) in calculating an expected return on equity via the Three-Stage DCF model, we did not simply rely on Ms. Sirois' calculations in the record that were now out of date but instead used updated inputs, and (2) in so doing, we made a mathematical error that yielded a result of 9.42 percent instead of the correct figure, which PSNH, OCA and Staff agree is 9.3 percent. For purposes of the present analysis, we substitute 9.3 percent for 9.42 percent everywhere the latter figure appeared in our Order No. 24,473 analysis.

Dr. Morin recommended the addition of a risk premium to the result of the underlying analysis. In Dr. Morin's opinion, what the underlying analysis yielded was simply an appropriate return on equity for PSNH as a whole – not a return specific to the generation portion of the Company. Mr. Hill agreed with Dr. Morin's premise – that the generation business is more risky from the investor perspective than the vertically integrated PSNH is overall – but

[8] PSNH did not object to use of Three-Stage DCF but argued it should have one of a number of methodologies employed to derive the ROE.

recommended a smaller risk premium to reflect the increased risk, specifically 17.5 basis points. Ms. Sirois disagreed with this approach entirely. According to her, a risk premium is inappropriate because "the risk premium that is associated with PSNH's generation plants is already incorporated in the parent's stock price and, as a result, [Dr. Morin] double-counts the risk specific to PSNH's generation plants." Exh. 17 at 24.

We found Dr. Morin's and Mr. Hill's reasoning to be persuasive, agreeing that PSNH's generation portfolio presents a greater risk to investors than the rest of the Company's business. Noting that Mr. Hill did not explain how he computed his risk premium of 17.5 basis points, we adopted Dr. Morin's methodology for calculating the risk differential. Dr. Morin used a methodology known as the Capital Asset Pricing Model (CAPM), along with a variant known as Empirical CAPM (ECAPM), to determine the number of basis points that accounted for the risk differential between PSNH's wires business (i.e., T&D) and its generation business. Dr. Morin derived a range of between 64 to 86 basis points (ECAPM yielding the lowest figure and CAPM the highest) and then settled on the high point of the range in light of current uncertainties in the power generation business. We disagreed with Dr. Morin's selection of the high end of the range, determining that it failed to take into account three factors that attenuate the riskiness of PSNH's generation portfolio: (1) the Company's lack of any nuclear assets, (2) the cost recovery mechanism required by RSA 369-B:3 and implemented by the PSNH Restructuring Agreement of 2001,[9] and (3) the fact that PSNH had suffered a mere $6,000 in prudence-related disallowances in connection with its generation assets since the Company was

[9] RSA 369-B:3, IV(1)(A) requires PSNH to use its generation portfolio to serve its retail energy customers, with such service priced to reflect the Company's "actual, prudent and reasonable costs." Customers are at liberty to obtain energy (as opposed to distribution) service elsewhere, which would, of course, free them from paying for PSNH's generation portfolio through energy charges. However, under RSA 369-B:3, IV(b)(1)(D) and relevant provisions of the Restructuring Agreement, absent prudence disallowances any generation-related costs that remained unrecovered through the energy charges would then be recovered via PSNH's Stranded Cost Recovery Charge, which is paid by all PSNH customers regardless of where they buy their energy.

restructured, a record suggestive of few such disallowances in the future.[10] Accordingly, we determined to use the low end of Dr. Morin's range – 64 basis points – as the appropriate differential to measure the difference between the risks inherent in the wires business and those of the generation portfolio.

As we have already noted, it was at this point that Order No. 24,473 erred. Dr. Morin, recognizing a general 50/50 allocation of generation and T&D assets among vertically integrated electric utilities, applied one-half of the difference in the estimated market risk premium between the wires and the generation segments of the business. We adopted a different allocation, based on the actual percentage of PSNH's assets that relates to generation. We find Dr. Morin's approach to be correct. Using the corrected figure for the underlying ROE (9.3 percent), following Dr. Morin's method of calculating the risk differential but applying it to the low end of his range (64 basis points), the new generation risk component "adder" is 32 basis points and the new return on equity appropriate to PSNH's generation assets is 9.62 percent.

Consistent with the longstanding practice of the Commission, in Order No. 24,473 we rejected Dr. Morin's proposal to add an upward adjustment to account for flotation costs (i.e., the costs associated with issuing securities). We then reviewed the CAPM analysis of each

[10] When we ruled on this question in Order No. 24,473, we also noted that RSA 378:30-a, precluding PSNH from recovering on construction work in progress (CWIP), adopts a principle that is not unique to New Hampshire. In response, PSNH characterizes the Commission as "reject[ing] the anti-CWIP risk which the [New Hampshire] Supreme Court has expressly identified and for which the Court expressly requires compensation." PSNH Motion at 30, citing *Appeal of Public Service Co. of N.H.*, 130 N.H. 748, 751 (1988). In the process of invoking the cited judicial dictum, PSNH misinterprets our reference to the anti-CWIP statute. We do not dispute the PSNH, like any company subject to RSA 378:30-a, faces the risk of ultimately not recovering on CWIP if such assets never become used and useful in the provision of service to the public - a risk that ought to be reflected in the Company's allowed return on equity. Our point is that such risk is not atypical of the industry as a whole, and thus does not tend to push us toward the upper end of Dr. Morin's range of potential risk differentials. In fact, as we noted in Order No. 24,473, PSNH's anti-CWIP risk is mitigated by RSA 369-B:3-a, which requires PSNH to gain advance permission from the Commission before expanding or modifying its generation assets. In such circumstances, PSNH's investors still remain precluded from recovering on unfinished capital projects - a legal reality that is, in itself, a certainty rather than a risk - but, by virtue of the pre-clearance requirement of RSA 369-B:3-a, they have a certain measure of assurance that capital projects actually completed will ultimately meet the used-and-useful requirement.

witness as a comparative test of the reasonableness of the generation ROE we calculated (originally 9.63, now corrected to 9.62). Because the revised ROE figure we adopt here is only one basis point lower than the previous figure, we need not revisit our analysis of why the various CAPM results reported by the witnesses supports rather than undermines our determination based on the Three-Stage DCF with an additional risk premium.

With regard to the foregoing analysis, the PSNH rehearing motion is somewhat repetitive but we understand the Company to be making these occasionally overlapping general arguments: (1) the Commission erred in its application of Dr. Morin's risk premium, (2) the base ROE calculated by using the Three-Stage DCF model yielded an ultimate result that is unreasonable, unjust, arbitrary and unlawful, (3) similarly, the resulting ROE is confiscatory and therefore unconstitutional, (4) the Commission is punishing PSNH for its good management of the generation portfolio, (5) the Commission improperly relies on a single methodology to calculate the ROE, (6) the Commission improperly relied on a mathematically precise result as opposed to the exercise of reasonable judgment, (7) the Commission improperly relied on evidence outside the record, in derogation of both the Administrative Procedures Act and the constitutionally secured right of due process, (8) some kind of error occurred with respect to the Three-Stage DCF model, a fact PSNH was deprived of the opportunity to elicit via cross-examination, (9) the ROE approved by the Commission improperly fails to compensate shareholders for the risks they assume through their investment in PSNH's generation assets, and (10) the Commission departed from its RSA 363:17-a role as arbiter between the interests of the utility's owners and those of its customers. We take up each contention in turn.

D. Legality of the Base ROE

The first of PSNH's remaining contentions challenges the constitutionality of the base ROE calculation. PSNH characterizes this calculation as unreasonable, unjust, arbitrary, unlawful and confiscatory. With the exception of the allegation that our determination is arbitrary, these arguments all reduce to the suggestion that we violated the standards articulated in *Hope* and the New Hampshire Supreme Court cases that invoke it. *Hope* requires us to set an ROE for the PSNH generation portfolio that is commensurate with returns on investments in other enterprises having corresponding risks. The return should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital, and fall within a zone of reasonableness between confiscation of the utility's property and exploitation of its customers.

According to PSNH, 9.63 percent (now corrected to 9.62 percent) falls outside the zone of reasonableness because, of dozens of allowed returns on equity for vertically integrated utilities reflected in the record, all are higher than the return granted to the PSNH generation portfolio. We disagree. "[T]he evidence relating to rates elsewhere has no conclusive probative force. Its affirmative effect depends on other evidence to which it may lead." *New England Tel. & Tel.*, 95 N.H. at 363. In other words, nothing in any of the applicable reported case law, and nothing in any of the various methodologies that we have applied, rules out the possibility that the ultimate answer will be different from the allowed returns of the companies in the proxy group. Indeed, if this assumed fact were dispositive, elaborate methodologies like the Three-Stage DCF and CAPM would be unnecessary because one would simply identify a proxy group and set the utility's allowed ROE at the average of that of the proxy group, or at some other analytically sound point between the highest and the lowest.

As a matter of common sense, nothing is amiss merely because 9.62 percent is lower than 10 percent, identified by PSNH as the lowest allowed ROE of any of the proxy group companies assembled by the Staff and OCA witnesses. It is undisputed that investor expectations vary with prevailing interest rates and market conditions. It is also undisputed that, during the period leading up to the hearing in May, interest rates were at or near historic lows. In contrast, the allowed ROEs of all companies in the proxy groups of the witnesses were established over a several-year period that involved economic conditions and possibly regulatory factors that were different from those that informed the determination here. Moreover, as already noted, PSNH's generation portfolio operates under a cost-recovery mechanism that is relatively low-risk because, in essence, the only possibility of non-recovery of costs involves a Commission determination that the expenses were incurred imprudently. The record does not reflect the extent to which any of the various proxy group companies enjoy such protection.

Beyond pointing out that 9.62 percent is lower than comparable figures for the proxy group companies, PSNH makes two points that could be the "other evidence" required to make the comparison a relevant one under the holding in the *New England Telephone* decision cited above. The first contention is that it is illogical to set an ROE for PSNH's generation assets below that for vertically integrated companies in the proxy group because the Commission has elsewhere acknowledged that generation, standing alone, is riskier than a vertically integrated utility. This argument would have merit if the process of setting an allowed ROE were simply one of measuring relative risk without regard to time, but it is not. Rather, the processes applied by the three expert witnesses involved the ascertainment of reasonable compensation to investors given the level of risk in the overall context of prevailing market circumstances, at this point in time.

PSNH makes a similar argument with respect to the list of companies contained in Exhibit 21. This exhibit is a list of state utility regulatory commission decisions from the first quarter of 2005 from South Carolina, Kansas, Washington, Utah, Missouri, Arizona, Vermont and Texas. According to PSNH, the average allowed ROE from these regulatory decisions is 10.44 percent and no single allowed ROE on this list is below 10 percent. The only advantage this list has over the proxy group data is the relative recentness of the decisions. But, as with the proxy group, the flaw in PSNH's argument arises out of its implicit attempt to replace the methodologies used by the expert witnesses with a bald comparison of PSNH's ROE with that of other companies, without evidence in the record as to the differences and similarities in risk relative to PSNH's generation portfolio.

The next contention of PSNH is that 9.62 percent is outside the constitutionally required zone of reasonableness because the FERC has determined 10.88 percent as the appropriate return on equity for so-called Reliability Must-Run (RMR) generating plants around New England. As PSNH points out, Dr. Morin testified that the RMR plants are a "pure play" proxy for PSNH's generation business. Dr. Morin explained that a pure-play proxy refers to a publicly traded company that has a risk profile, from the investor perspective, that is nearly identical to that of the business under review. On cross-examination, Dr. Morin used the word "clone" to describe the relationship of a pure-play proxy to the PSNH generation portfolio. Tr. 5/18 at 186.

Whether advanced by Dr. Morin at hearing or by PSNH on rehearing, this argument is devoid of merit. The U.S. Court of Appeals for the District of Columbia Circuit recently described RMR units in New England, in connection with an appeal of a FERC decision about such a plant thusly:

> [T]he [ISO New England Standard Market Design (SMD)][11] allowed certain seldom-used generator units needed to assure system reliability to be classified as Reliability-Must-Run (RMR) units. These are units that must be run – i.e., that ISO New England can compel to run during certain periods to alleviate transmission congestion. This designation entitled the generator to apply for an "RMR Cost-of-Service Agreement" if the unit could not recover its costs under the [ISO's applicable price cap] mechanism and would otherwise be shut down.[12]

PPL Wallingford Energy LLC v. Federal Energy Regulatory Comm'n, 2005 WL 1868947 (D.C. Cir. Aug. 9, 2005) at * 2 (citations omitted). For example, the generation facility at issue in the *PPL* case consisted of five natural gas combustion turbines, "relatively high-cost 'peaking' units, intended to run only during times of peak demand or system need," located in a region of southwest Connecticut designated by the ISO as suffering from transmission congestion. *Id*.

The FERC approved 10.88 percent as the appropriate ROE for RMR units in 2003. *See Devon Power Co*., 104 FERC ¶ 61123 (July 24, 2003) at ¶ 48. In so doing, the federal agency cautioned that its ruling on cost issues related to the RMR units "presents a *unique set of circumstances* which require the [FERC] to apply cost recovery principles to provide Applicants with the opportunity to recover their costs in the market. As a result, rates established herein are *not intended to establish a precedent* for cost recovery." *Id*. at ¶ 35 (emphasis added). According to the FERC, a 10.88 percent return on equity for the RMRs was appropriate insofar as it reflected the agency's general policy of employing the "midpoint of the zone of reasonableness as the appropriate rate of return." *Id*. at ¶ 49. Although the record here does not

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[11] ISO New England is the regional transmission organization that has been authorized by the FERC to serve as both the operator of the transmission system throughout New England and the entity with oversight responsibility with respect to the region's wholesale electricity market. The ISO promulgated its SMD in furtherance of the latter responsibility.

[12] The price cap mechanism was based on the estimated price to recover the annual cost of a new combustion turbine unit. *PPL* at *2. Thereafter, the FERC adopted an alternative methodology known as Peaking Unit Safe Harbor (PUSH) bidding, intended as a temporary solution pending approval of an ISO proposal known as LICAP. *Id*. at *3. As the result of significant controversy, the FERC has postponed the implementation date of LICAP until at least October 2006. *Id*.

include a list of generators that have received RMR status in New England, a review of the relevant FERC decisions reveals none outside of Connecticut and Massachusetts.

Neither the record nor any reported decisions of other tribunals allows us to find that RMRs present investors with risks commensurate with those of the PSNH generation units. RMR units are obliged to run for reliability purposes; it is undisputed that PSNH's plants have no such obligation. RMRs serve as a response to transmission congestion, a problem that is almost entirely absent in New Hampshire. The FERC itself cautioned against the use of its ROE determination in the unique circumstances of *Devon Power* to any other proceeding. The 2003 determination is now more than two years old, arising out of a time when conditions in the general economy were different than those relevant to Order No. 24,473. And nothing in the record or the reported decisions sheds light on whether 9.62 percent would also fall within the zone of reasonableness that FERC analysis assigned to the RMRs. In light of these realities, we are unable to agree for present purposes that the region's RMR units serve as a "clone" of PSNH's generation portfolio or are otherwise relevant to the determination at issue here.

The next argument advanced by PSNH is that we improperly relied on "anecdotal comparisons" in making our ROE determination. PSNH Motion at 13. PSNH refers to certain evidence introduced by Staff, consisting largely of representations made by senior officials of PSNH's parent company to investor groups about expected rates of return. The determination in Order No. 24,473 was not based on the information PSNH complains of. Rather, Order No. 24,473 noted the information, taken from Northeast Utilities materials and subjected to cross examination in the hearing, as revealing "various forms of financial and investor perceptions that further bolster the reasonableness of our DCF rate of return on equity of 9.63 percent on PSNH's generation assets." Order No. 24,473, slip op. at 43 Our decision, however, was based on

analysis of the expert testimony submitted by the parties and Staff and not on anecdotal comparisons.

A dictum in the 1953 *Chicopee* decision of the New Hampshire Supreme Court forms the basis of PSNH's next argument. In the *Chicopee* case, the utility alleged that an overall 5.65 percent rate of return (including both return on equity and cost of debt) was unconstitutionally confiscatory. The Court disagreed, noting that the ROE associated with an overall return of 5.65 percent was 10.9 percent, a figure that included a "market premium" over the utility's actual cost of obtaining investor capital. *Chicopee*, 98 N.H. at 13. In so determining, the Court observed that "[i]f a utility is to function effectively, this normally requires that the rate of return should be greater than the cost of money," a principle the Commission apparently recognized explicitly in reaching its decision. *Id*. at 11. According to PSNH, we ran afoul of *Chicopee* by setting the ROE precisely at the mathematically calculated cost of capital.

The *Chicopee* decision does not, in itself, stand for the proposition that the Commission must calculate a utility's actual cost of equity and then add a market premium to determine an allowed return on equity for ratemaking purposes. None of the expert witnesses here, including Dr. Morin, advanced such a proposal. We read the cited observation from *Chicopee* as a statement by the Court about a principle that would ordinarily inform what were then the available methodologies. We disagree that, in employing the Three-Stage DCF model to set the generation ROE for PSNH, we are required to provide a bonus in order to avoid a rate that is confiscatory.

Neither did Dr. Morin, or any other expert witness, advance a proposal that PSNH now suggests we are obliged to adopt: that the utility is entitled to some allowance in its ROE as

a recognition of the Company's good stewardship of its generation assets. Indeed, PSNH complains that the ROE calculation actually and improperly "punishes the Company for its success" by referring to the notable lack of prudence disallowances related to non-nuclear generation since PSNH was restructured in 2001. PSNH Motion at 19. PSNH argues that it was arbitrary, unjust and unreasonable for the Commission not to consider both its "superlative management" but also the fact that PSNH dedicated below-the-line funds (i.e., money that will not be recovered in rates) to protect the interests of retail customers. *Id*.

This argument is unpersuasive. Investors require returns that reflect the riskiness of enterprises in which they invest. Performance-based ratemaking – i.e., a ratemaking methodology that would allow the Commission to reward PSNH for the kind of superlative record the Company attributes to itself here – has its place as a matter of policy under certain circumstances. We find no basis for applying such a policy here. As to the Company's use of below-the-line funds to advance the interests of its retail customers: To the extent that PSNH has done this, we assume it arises out of a determination that the interests of its owners and the interests of its customers are in alignment. The applicable constitutional principles do not require us to reward such a determination here.

The next question we take up is whether we made an arbitrary, unjust or unreasonable decision by, as PSNH claims, relying upon "one particular methodology to formulaically calculate the rate." *Id*. at 20, citing *Legislative Utility Consumers' Council v. Granite State Elect. Co*., 119 N.H. 359, 362 (1979) and *New England Tel. & Tel. Co. v. State*, 113 N.H. 92, 95 (1973). After so characterizing our decision, PSNH complains that such a decisionmaking framework runs afoul of not just the testimony of witnesses Hill and Morin but also the recommendations of the Society of Utility and Regulatory Financial Analysts, the

practice of the majority of utility regulators in the United States and past decisions of the New Hampshire Supreme Court.

There are several flaws in this argument. First, PSNH is incorrect in its suggestion that we have formulaically relied upon one methodology. We evaluated the recommendations of the three witnesses and employed those aspects of their recommendations that we found most persuasive and consistent with Commission precedent and our obligation to set just and reasonable rates.

Second, PSNH mischaracterizes Dr. Morin's testimony on this subject somewhat. Although Dr. Morin did indeed testify that it is "extremely dangerous" to rely on "one generic methodology to estimate equity costs," he stressed that he was making this observation as a "general proposition." Exh. 7 at 14. He also stated that it is "appropriate" to use the DCF methodology to estimate capital costs, noting that "there is no proof that the DCF produces a more accurate estimate of the cost of equity than other methodologies" but conspicuously not stating that a DCF-derived estimate is less reliable than one yielded by any other methodology. *Id*. at 16. He referred to certain "*potential* shortcomings" without deeming them definitive ones. *Id*. (emphasis added). In other words, while it was Dr. Morin's recommendation that the Commission average the results of numerous approaches to derive a ROE for the PSNH generation portfolio,[13] he carefully avoided stating flatly that the Commission would be adopting an incorrect ROE if it used the result obtained from the Three-Stage DCF model, much less the use of this result with an alternative methodology (in fact, a methodology among those used by Dr. Morin) as a check on the primary result.

[13] Dr. Morin did not explain how he evaluated and applied the various results he derived beyond citing the "application of my professional judgment." Exh. 7 at 58.

Finally, PSNH's position on this issue reduces to an argument that we were obliged to reject the opinion of a particular expert witness because other experts, including the PSNH witness, disagree with that opinion in whole or in part. As the Court noted in the 1973 *New England Telephone* case cited by PSNH, precisely because ratemaking is not an "exact science" that yields a "mathematically precise rate of return," the proper ROE "is a matter for the judgment of the commission based upon the evidence before it with adequate findings upon which the validity of its orders can be determined." *New England Telephone*, 113 N.H. at 95; *see also Legislative Utility Consumer's Council,* 119 N.H. at 362 (noting that, given that ratemaking is not an exact science, "the commission must be given wide latitude to exercise its judgment in determining components of the rate of return"); and *New England Telephone*, 104 N.H. at 236 ("[t]he Commission is not compelled to accept the opinion evidence of any one witness or of any group of witnesses"). The mere presence in the record, without more, of expert opinion conflicting with that adopted by the Commission – presents no basis for rehearing of Order No. 24,473.

E. Due Process

The next contention in the PSNH rehearing motion is that the Company's right to due process was infringed because the Commission performed certain calculations outside the record. PSNH complains that it had no opportunity "to challenge the assumptions and data that formed the basis for the Order's end result." PSNH Motion at 24.

Events have overtaken this argument. As noted above, the Commission is granting the PSNH motion to the extent that it alleges an error in the earlier calculation of the base ROE. The error was purely mechanical and, at the technical session convened to address this issue, PSNH agreed with Staff's and OCA's proposed correction of the error. An alternative

approach would have been to reconvene a hearing and cause the parties to go to the expense and trouble of flying their experts (both of whom are outside of New Hampshire) to Concord for the purpose of challenging the miscalculation in Order No. 24,473. It is commendable that the parties were able to avoid going down that pathway by resolving the discrepancy informally – and, given the lack of disagreement, we see no due process issues in not having developed the correction via sworn testimony with cross-examination.

This, of course, does not resolve PSNH's contention that it was improperly deprived of the opportunity to question the underlying assumptions and data. A review of the hearing record indicates that, in fact, PSNH had such an opportunity. To reach our DCF result, we applied the exact mathematical formula set forth in the pre-filed direct testimony of Ms. Sirois. PSNH had ample opportunity to conduct pre-hearing discovery on, and inquire at hearing about, the correctness of this equation and the economic theories that inform its use. For similar reasons, PSNH's due process rights were not implicated because, consistent with past precedent, we used updated economic data as mathematical inputs, even though it was not the data used by Ms. Sirois at hearing. Again, PSNH had ample opportunity to challenge the underlying assumption that in employing the Three-Stage DCF model it is appropriate to use the most recently available economic data. Notably, PSNH does not challenge such an assumption here, and has conceded the mathematical correctness of the revised DCF result that was derived via

the updated factual inputs. In these circumstances, we believe we have appropriately protected PSNH's right to due process.[14]

A related though separate question concerns PSNH's disagreement with our decision not to use the proxy group recommended by Ms. Sirois in conducting a DCF analysis. We used Mr. Hill's proxy group instead. According to PSNH, the criteria Ms. Sirois used to develop a proxy group were "rational and based on good professional judgment," pointing in particular to her rejection of companies without positive five-year growth forecasts as well as positive five-year growth records in both per-share earnings and per-share dividends. *Id*. at 26. PSNH notes that several companies in Mr. Hill's proxy group do not meet this positive growth criterion.

We discern no basis for rehearing based on our use of Mr. Hill's proxy group. PSNH's argument here is fundamentally a variation of its previously expressed position about the choice of methodologies. PSNH does not challenge the finding in Order No. 24,473 that Mr. Hill's proxy group is more "representative" of the relevant industry because it excludes companies that received less than 70 percent of their revenue from regulated electric operations,

[14] PSNH also makes a similar argument that alleges violation of the requirement in the Administrative Procedures Act that factual findings be based on record evidence or matters "officially noticed." *See* RSA 541-A:31, VIII. In order for the Commission to take official notice of anything we are required to offer parties an opportunity to contest such official notice. RSA 541-A:33, VI. Subsection VI of Section 33 goes on to make clear that we may use our "experience, technical competence and specialized knowledge" to evaluate the evidence. We believe that as to the matters challenged by PSNH, we were conducting such an expert evaluation when calculating the Base ROE. Even if that were not the case, any error would be harmless because PSNH does not actually object to any facts that could be deemed to have been officially noticed – i.e., the veracity of the updated inputs, the propriety of using the most recently available data and (as corrected) the actual application of the mathematical formulae.

as opposed to the 60 percent figure used by Ms. Sirois. *See* Order No. 24,473, slip op. at 37 and n.3.[15]

PSNH's next argument concerns the statute precluding recovery in rates of a return on construction work in progress. We have already addressed this issue, *supra*. In addressing this issue, PSNH offers an extensive challenge to certain arguments made at hearing by Staff. Since it is our decision in Order No. 24,473, rather than any arguments presented at hearing, that are at issue here, we need not address PSNH's disagreement with those arguments as PSNH has characterized them. The speculation that we adopted this argument without saying so, *see* PSNH Motion at 30 ("Perhaps this rejection of the anti-CWIP statute is the result of Commission Staff's views on this subject expressed during the hearing") has no basis here or in Order No. 24,473.

F. Commission as Arbiter

The final argument in the PSNH rehearing motion invokes RSA 363:17-a, the statute explicitly defining the Commission's role as serving as "the arbiter between the interests of the customer and the interests of the regulated utilities." According to PSNH, rehearing is justified because we have departed from honoring this obligation.

We agree with PSNH that RSA 363:17-a states an important public policy principle and we take seriously our obligation to serve as an arbiter as opposed to a defender or advocate of either utility shareholders or utility customers. But we do not read RSA 363:17-a as providing an independent basis for assigning error to a particular order of the Commission.

[15] PSNH contends it was unreasonable to use Mr. Hill's proxy group because, according to the data in the work papers released by the Commission in connection with Order No. 24,473, one of the companies in the group would have an overall decline in earnings per share at the same time it would be increasing its dividends per share - a situation PSNH characterizes as one suggesting a company "headed for insolvency." PSNH Motion at 26. Another explanation is also plausible, *i.e.,* changes in accounting practices and short-term fluctuations in economic conditions can adversely affect earnings per share even at a company that is able to increase its dividend based on available cash after paying outstanding debt.

Indeed, in a proceeding that involved hearing testimony from the utility and the OCA as the statutorily designated representative of residential ratepayers, and particularly in a proceeding that yielded a Commission answer that falls between the specific numerical recommendations urged on behalf of shareholders and customers respectively, we are confident about our fidelity to RSA 363:17-a.[16]

One specific contention PSNH makes in connection with RSA 363:17-a deserves mention, however. According to PSNH, our decision is improper because it impacts shareholders disproportionately as compared to the impact on customers. PSNH invokes testimony at hearing to the effect that a shift of 100 basis points in the allowed generation ROE means a difference of $1.8 million in overall rates during the course of a year, amounting to an increase or decrease of 17 cents per month for a customer whose typical monthly bill is $100. Tr. 5/18 at 101-02. By contrast, to apply round numbers within the relevant order of magnitude, shareholders receiving a 10 percent return on their investment in PSNH generation assets would see that return vary by 10 percent upon an increase or decrease of 100 basis points. We understand this comparison – 0.17 percent for customers, 10 percent for shareholders per 100 basis points – to be the essence of PSNH's argument that our decision impacts shareholders disproportionately.[17]

To base an ROE decision on such a comparison would be an abdication rather than an exercise of our role as arbiter between shareholders and customers. There simply is no

[16] Moreover, even if one could pursue rehearing and/or appeal based on an alleged violation of RSA 363:17-a, in this instance the applicable legal standard would likely be coextensive with our constitutional obligation to fix a return on equity that falls within the zone of reasonableness between a customer-favorable confiscatory rate and a utility-favorable exploitation of customers. Thus, for the reasons already stated as to why the ROE we have established falls within the zone of reasonableness, any cognizable challenge based on RSA 363:17-a also fails.

[17] If the Commission were to resolve disputes through such comparisons, it would be critical to align the impacts being compared. In this case, the proper comparison would be between 17 cents per month for PSNH's average retail electric customer and the cent or cents per share to Northeast Utilities' shareholders.

relevance to a direct comparison of per-customer rate effects and overall return on shareholder investment, even if we measured the latter in terms of effect on the typical individual shareholder. In absolute terms, changes in allowed returns on investment always affect shareholders more than customers because return on investment is always the entirety of shareholders' financial stake in the issue but only a portion – typically, a relatively small portion – of a utility's total revenue requirement as it is imposed on customers. Thus, if we accepted PSNH's logic, utilities would always prevail in ROE disputes because the result has greater financial significance to shareholders than customers. PSNH's argument about disproportionate impact is meritless.

VI. MOTION FOR REHEARING OF ORDER NO. 24,498

To conclude all matters now pending in this docket, we close by taking up the August 15, 2005 letter from Representative Ryan, treated as a rehearing motion. In Order No. 24,498, following a hearing, we revised the Transition and Default Service rate that would apply to PSNH customers for the period August 1, 2005 through January 31, 2006. The rate moved upward from 6.49 cents per kilowatt-hour to 7.24 cents.

Representative Ryan's letter concerns the potential effect on PSNH's retail energy rates of the pending FERC proceeding regarding the establishment of a locational installed capacity (LICAP) market for wholesale generation in New England. If approved by the FERC, LICAP would involve a location-specific charge for installed capacity that would be payable by purchasers of wholesale energy for distribution in New England. According to ISO New England, which proposed the LICAP mechanism to comply with a FERC mandate to do so, the objective is to assure the existence of an appropriate margin of generation capacity at all times, something the ISO contends the wholesale market in energy itself does not yield. We observed

in Order No. 24,498 that LICAP has engendered the opposition of every state utility regulatory commission in New England, including this one. As noted, *supra*, one result of this opposition is that the FERC delayed implementation of LICAP at least until October 1, 2006.

The PSNH Transition and Default Service rate approved in August was calculated on the best evidence available at the time, which was that LICAP charges would commence as of January 1, 2006. After noting his agreement with the Commission's position on LICAP and the similar position taken by OCA, Representative Ryan asked the Commission to revise the Transition and Default Service rate so as to prohibit PSNH from passing the previously projected LICAP charges through to customers.

Representative Ryan pointed out that after the issuance of Order No. 24,498 FERC had delayed the implementation of LICAP and he expressed concern that PSNH would therefore be receiving an "interest free" loan from customers. In response, PSNH pointed out that Transition and Default Service rates are "expeditiously reconciled so that customers only pay the actual cost of the energy they consume [and] [t]herefore, there is no 'interest free' loan from customers." PSNH also contends that considering a change in this cost item would also implicate a consideration of charges in other cost items, which would likely result in an overall increase in rates.

We are committed to establishment of a sound capacity model in New England but share Representative Ryan's concern about the LICAP proposal currently before FERC and we are pleased that FERC has decided to take a closer look at the issue. However, as a cost input to these Transition and Default Service rates, it would be inappropriate to re-open the record to

consider only a single cost element,[18] and, in fact, very likely detrimental to customers from a current rate perspective to re-open entirely. Furthermore, because of the expeditious reconciliation process, PSNH is not the beneficiary of an "interest-free loan" at the expense of customers. Accordingly, we deny rehearing on this issue.

VII. CONCLUSION

For the reasons already stated, a mathematical error in our application of the Three-Stage DCF model requires us to grant rehearing of Order No. 24,473 to the extent of correcting the error. Likewise, an error, concerning the relevance of the relative size of PSNH's two business segments, in calculating a risk premium for PSNH's generation business as distinct from its vertically integrated operations, also requires correction and the granting of PSNH's rehearing motion to that extent. We must deny the remainder of PSNH's motion. The result is a minor adjustment to the allowed return on equity, from 9.63 to 9.62 percent. The motion for rehearing of Order No. 24,498 is denied.

Based upon the foregoing, it is hereby

ORDERED, that the motion of Public Service Company of New Hampshire for rehearing of Order No. 24,473 is **GRANTED IN PART AND DENIED IN PART**, as set forth more fully above, and that, accordingly, effective on and after August 1, 2005 the Company shall use an authorized return on equity of 9.62 percent for calculating its overall rate of return on its generating assets; and it is further

FURTHER ORDERED, that the motion of Representative Jim Ryan for rehearing of Order No. 24,498 is **DENIED**.

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[18] If the rates were adjusted solely to reflect the FERC decision to delay LICAP, the average residential customer would save approximately $0.25 per month during the initial phase-in period, which would have been for the months of January, February, March and April, 2006.

By order of the Public Utilities Commission of New Hampshire this second day of December, 2005.

Thomas B. Getz	Graham J. Morrison	Michael D. Harrington
Chairman	Commissioner	Commissioner

Attested by:

Lori A. Normand
Assistant Secretary