

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 6545

Investigation into General Order No. 45 Notice filed by Vermont Yankee Nuclear Power Corporation re: proposed sale of Vermont Yankee Nuclear Power Station to Entergy Nuclear Vermont Yankee, LLC, and related transactions

Michael H. Dworkin, Board Chairman
David C. Coen, Board Member
John D. Burke, Board Member

Order entered: 6/13/2002

NOTE: This document is an excerpt from a longer Order that ruled upon (1) the sale of the Vermont Yankee nuclear plant (VYNPC) to Entergy Nuclear Corporation (ENVY) and (2) a Purchase Power Agreement (PPA) for a portion of the output of that plant. The PPA was between ENVY and two Vermont utilities (Green Mountain Power Corporation and Central Vermont Public Service Corporation) both of which are distribution utilities regulated by the Vermont Public Service Board.

The excerpts include:

- 1. The rationale for the regulatory rulings made with respect to the PPA including rulings on *prudence* and *used and useful* criteria (pp. 1-18)**
- 2. Background of the case (for those who want to read more) (pp. 19-47).¹**

The entire Order can be accessed via the Board's web page at:

<http://www.state.vt.us/psb/orders/2002/files/6545fnl.pdf>

¹ The pages and footnotes included in this excerpt are not set out in the same logical order as they are in the original document. The entire order is quite lengthy (171 pages) so interim sections have been omitted from the excerpt.

I. REQUESTED RULINGS ON PRUDENCE, USE, AND ECONOMIC USEFULNESS

A. Introduction

The Petitioners have requested that the Board make certain findings that would essentially provide Green Mountain and Central Vermont with guaranteed rate recovery for all their prior actions related to the Purchase and Sale and Purchase Power Agreements and purchases thereunder. In the MOU, the Petitioners and the Department request that the Board find that the Sale Agreement, the purchase of power under the Power Purchase Agreement, the MOU, and all related utility actions shall be treated *as if* they were prudent and *used* and *useful*.² Paragraph 15 of the MOU requests that the Board's Order make the following determinations:

1. Finding that the transactions described in the Sale Agreement, as modified by the commitments set forth herein (made for purposes of such settlement), and the process by which VYNPC sold its assets shall be treated as if it were prudent as to all decisions and actions taken by Petitioners prior to the close of evidence in Docket No. 6545 and which were reviewed by the Board in Docket No. 6545;
2. Finding that the purchase of capacity and associated energy by VYNPC from ENVY and subsequent resale by VYNPC to Central Vermont and Green Mountain, including all other products sold under the Power Purchase Agreement and costs incurred by Central Vermont and Green Mountain under the Power Purchase Agreement and Amendatory Agreements, shall be treated as if it were used and useful for the Power Purchase Agreement's and Amendatory Agreement's term;
3. Finding that the execution of this Memorandum of Understanding and of the Amendatory Agreements for the continued purchase of capacity, associated energy and other products from VYNPC and payment of the costs

² The Petitioners originally requested a direct Board ruling that the actions were both prudent and used and useful. Specifically, Section 1 of Schedule 4.3(b) of the Sale Agreement (which identifies the Seller's Required Regulatory Approvals) provides that VYNPC must obtain an Order from the Board that, among other things, approves: participation by [Central Vermont] and [Green Mountain] and, to the extent applicable, by other Sponsors, in Sale Agreement, Power Purchase Agreement and Amendatory Agreements, including an order *(a) that the execution and performance of the Amendatory Agreements is prudent, (b) that the electricity purchased thereunder is used and useful, and (c) allowing full recovery of costs arising therefrom, including appropriate accounting orders as deemed necessary by [Central Vermont] and/or [Green Mountain].*

The Petitioners no longer request that the Board make the above determinations. *See* Petitioners's Brief at 3, note 3. "Petitioners do not ask the Board to adjudicate the Transactions' prudence or the Station's used and usefulness and will accept the non-precedential "as if" treatment agreed in the MOU;" *see also* exh. VY-42 at ¶ 15.

incurred thereunder by Central Vermont and Green Mountain shall be treated as if it were prudent as to all decisions and actions taken by Petitioners prior to the close of evidence in Docket No. 6545 and which were reviewed by the Board in Docket No. 6545;

4. Stating that the above provisions are intended to provide the same level of assurance to the financial community and ENVY that each would obtain from a declaration that (a) such transactions and process, and the execution of the MOU and Amendatory Agreements and payments of costs thereunder are in fact prudent and (b) that such purchases of power under the Power Purchase Agreement and the Amendatory Agreements and costs and payments thereunder are in fact used and useful.

The Petitioners argue that these rulings are necessary to avoid "adverse financial consequences for Central Vermont and Green Mountain." The absence of such rulings, Petitioners suggest, may cause the financial community to view Central Vermont and Green Mountain in a negative fashion.³ By contrast, NECNP asserts that the Board cannot, in this proceeding, grant the requested rulings. NECNP claims that the Board cannot make such rulings outside of a rate case.⁴

The Petitioners' request raises two separate issues. The first is the question of whether the Board *can*, as a matter of law, find now that the execution and performance should be treated as if they were prudent and find now that the electricity should be treated as if it were used and useful.⁵ As we explain below, the Board concludes that we do have the legal authority to grant the requested approvals, *except* as they relate to the utilities' future performance of their obligations under the transactions and under their continuing obligation to operate in a prudent manner.

The second question is whether the Board *should*, as a matter of policy, issue the requested findings. This issue is more difficult. These requests are extraordinary, and granting them would require the Board to alter long-standing and consistently-applied principles of utility rate-making. Here, we find that the evidentiary record permits us to make a limited finding that,

3 . Petitioners' Brief at 67–68.

4 . NECNP Brief at 12.

5 . To be precise, the Petitioners now seek a Board ruling that we will treat the transactions *as if* they were prudent and used-and-useful, rather than actually deciding now that these transactions *are* prudent and used-and-useful. In the context of this proceeding, we see no difference between the two requested rulings. In both instances, the Board is essentially asked to assure rate recovery and waive long-standing regulatory principles.

among the three present options available to the Petitioners, the sale to ENVY under the terms of the Power Purchase Agreement is reasonable and prudent upon the information presented to us on the record. As to the other requested findings, we decline to issue the rulings sought by Petitioners. Nonetheless, we find the risk of a material future disallowance of costs to be small.

B. The Long-Standing Criterion

Traditional utility rate-making practices employed in Vermont and in other American jurisdictions start from the presumption that utility expenditures are, in fact, reasonable and prudent. This presumption provides companies a reasonable measure of certainty as they exercise their discretion and manage their affairs. However, across our nation, for more than a century, this presumption has *not* "guaranteed" rate recovery, but rather has been rebuttable.⁶ In particular, long-standing utility rate-making principles have required that, in order to be fully recoverable in rates, expenditures must be prudent and used-and-useful for the provision of service to customers.

Requiring an investment or a company action to be prudent is one safeguard imposed upon a regulated business to protect ratepayers when a utility makes unreasonable decisions.⁷ A prudence determination is simply an inquiry into the reasonableness of utility management decision-making. Imprudent expenditures by utilities are not recoverable from ratepayers absent extraordinary circumstances.⁸ The Board explained the criteria we apply in examining the prudence of utility actions in Docket 5132, *In re Seabrook*, and has consistently applied the standard.⁹

The Board has long recognized that the obligation for utilities to operate in a prudent manner applies not solely to investments in specific projects, but to the full range of utility actions, including the negotiation and management of purchased power contracts.¹⁰ In the case

6 . See extensive examples cited in Docket 5132, Order of 5/15/87, 83 PUR 4th 532, 566 (1987).

7 . *Jersey Central Power and Light Co. v. FERC*, 810 F.2d 1168 (D.C. Cir. 1987).

8 . Dockets 5630/5631/5632, Order of 12/30/93; Docket 5983, Order of 2/27/98 at 214; Docket 6107, Order of 1/23/01 at 76–81; Docket 6460, Order of 6/26/01 at 20–24, 67.

9 . Docket 5132, Order of 5/15/87, 83 PUR 4th 532, 566 (1987).

10 . See, e.g., Docket 5983, Order of 2/27/98 at 218 and n. 352; Docket 5854, Order of 12/30/96 at 67; Dockets 5630/5631/5632, Order of 12/30/93 at 52; Dockets 5841/5859, Order of 6/16/97 (finding Citizens Utilities' managerial practices imprudent); Docket 5270-GMP-3, Order of 9/5/91 at 110 (reiterating that Green Mountain

of purchased power contracts (such as the Power Purchase Agreement), utilities have responsibilities paralleling those applicable to investments. Initially, a company must consider the contract's full range of costs and benefits, including the availability of alternative means to achieve the same result.

Like the concept of prudence, the used-and-useful doctrine serves as a safeguard and is a utility rate-making practice consistently employed by regulators in Vermont and across America to assure that ratepayers do not pay the entirety of expenditures for which they receive no benefit.¹¹

The used-and-useful principle is a two-part standard.¹² A utility's expenditures for a particular resource (or other item) can be included in rates if the resource is both *used* — that is, necessary to provide service to ratepayers — and *useful* — which is to say, economic for the purposes it is serving.¹³ An investment or cost is not used and useful, *i.e.*, has failed, when it is not expected to yield net present value benefits, after consideration of non-price benefits, over its remaining lifetime. Both parts of the standard must be satisfied in order for the overall principle to be met and rate recovery permitted.¹⁴

must operate its DSM programs in a prudent manner); *In the Matter of the Application of Interstate Power Company for Authority to Increase Its Rates for Electric Service in the State of Minnesota*, Docket No. E-001/GR-95-601, Minn. P.U.C. (April 8, 1996 and June 26, 1996) (affirming previous finding that the entry into certain long-term power contracts was imprudent); *Re: Puget Sound Power and Light Company*, Docket No UE-920433, W.U.T.C. (Sept. 27, 1994) (holding both buy and build options to the same prudence standards).

11 . See Docket 5983, Order of 2/27/98 at 242-245; Docket 5854, Order of 12/30/96 at 67-69; Dockets 5630/5631/5632, Order of 12/30/93 at 57-59; Dockets 5810/5811, Order of 2/8/96 at 34-39. We found in Docket 5132 that a "long-standing principle of regulatory law has been that an investment must be 'used and useful' for the provision of public service before the public should be asked to bear its cost." In Docket 5132, we also cited a Massachusetts DPU decision that held that "the prudence test . . . determines whether cost recovery is allowed at all, while the used and useful analysis determines the portion of prudently incurred costs on which the Company is entitled to a return." Docket 5132, Order of 5/15/87 at 129-130, citing Mass. DPU 85-270, Order of June 30, 1986, at 27.

In cases where the Board has found utility investments to be uneconomic, the Board usually fashions a remedy that shares the resulting burden of uneconomic costs between shareholders and ratepayers; typically, but not necessarily, in equal divisions. Docket 5132, Order of 5/15/87, 83 PUR 4th 590-594. The Board has done this to allocate the costs of failed investments in major power plants between ratepayers and shareholders. See, e.g., *In re Central Vermont Public Service Corp.*, Docket No. 5132, 83 PUR. 4th 532, 594 (Vt. PSB 5/15/87); *In re Central Vermont Public Service Corp.*, Docket Nos. 4496/4504, Order of 12/4/81, at 11-14; *In re Central Vermont Public Service Corp.*, Docket No. 4634, 49 PUR. 4th 372, 376 (Vt. PSB 9/16/82); *In re Central Vermont Public Service Corp.*, Docket No. 5030, 72 PUR. 4th 733, 747-49 (Vt. PSB 2/18/86).

12 . Docket 5983, Order of 2/27/98 at 246. See also Docket 5132, Order of 5/15/87.

13 . *Id.*

14 . Docket 5983, Order of 2/27/98 at 242. One exception to the literal "used and useful" rule provides that it need not be stringently applied if a greater recovery is "necessary to ensure efficiency and progress in the art and the

We have also applied this principle to purchased power contracts.¹⁵ Just as ratepayers should not have to pay the entire costs of failed investments, they should not bear the entire risk that utility-purchased power contracts will not be used and useful.¹⁶ Failure to apply the used-and-useful principle to both investments and power purchases would create perverse incentives to fill resource needs with purchased power contracts simply because rate-making practices would make doing so less risky, notwithstanding the merits of the particular power sources and the obligation to meet demand at the least societal cost.¹⁷

These two rate-making tenets both look at the reasonableness of utility actions, but from different perspectives. As the Court of Appeals for the District of Columbia concluded, a used-and-usefulness review works best in tandem with, but subsequent to, a prudence determination.¹⁸ Neither should be applied mechanically, but rather with an eye to factual and equitable considerations:

Prudence is, of course, relevant to the process of striking a reasonable balance in rate-setting for public utilities. Requiring an investment to be prudent when made is one safeguard imposed by regulatory authorities upon the regulated business for benefit of ratepayers. As I see it, the "used and useful" rule is but another such safeguard. The prudence rule looks to the time of investment, whereas the "used and useful" rule looks toward a later time. The two principles are designed to assure that the ratepayers, whose property might otherwise of course be "taken" by regulatory authorities, will not necessarily be saddled with the results of management's

continued attraction of capital to the enterprise." *Washington Gas Light Co. v. Baker*, 188 F.2d 11, 19 (D.C. Cir. 1950), *cert. denied*, 340 U.S.952 (1951). However, that exception is limited by the overriding rule that it must not result in unfairness to ratepayers. *Id.*

15 . Docket 5983, Order of 2/27/98; *In re Central Vermont Public Service Corp.*, Dockets 5701/5724, Order of 10/31/94. Other jurisdictions have reached the same conclusion. *See, e.g., In the Matter of the Application of Interstate Power Company for Authority to Increase its Rates for Electric Service in the State of Minnesota*, Docket No. E-001/GR-95-601, Minn. P.U.C. (June 26, 1996); *Re Section 712 of the Energy Policy Act of 1992*, Case No. 2512, N.M.P.U.C. (October 7, 1993).

16 . *See, e.g.*, 5983, Order of 2/27/98; Dockets 5701/5724, Order of 10/31/94 at 121–127.

17 . Docket 5983, Order of 2/27/98, n. 352, citing *Re: Puget Sound Power and Light Company*, Docket No. UE-920433, W.U.T.C. (Sept. 27, 1994) (holding both buy and build options to the same prudence standards).

18 . *Jersey Central Power and Light Co. v. FERC*, 810 F.2d 1168, 1189–91 (D.C. Cir. 1987).

defalcations or mistakes, or as a matter of simple justice, be required to pay for that which provides the ratepayers with no discernible benefit.¹⁹

The prudence and used-and-useful standards also reflect the principles that underlie the regulation of electric utilities. Utility regulation is intended, at least in part, as a substitute for competition. Companies in competitive markets that make unwise investment or purchase decisions or that invest in assets that prove to be too expensive are generally unable to recover their full cost of those investments. Rather, the pressure of the competitive marketplace force companies to write off investments, even if they were reasonable at the time they were made.²⁰ The prudence and used-and-useful principles have the same effect of preventing utilities from recovering the full cost of investments that they would need to write off in a competitive marketplace.

C. Board Authority to Issue Requested Findings

Although we have consistently applied the prudence and used-and-useful principles, the Board retains the authority to permit rate recovery in certain circumstances even if costs do not meet these standards. These regulatory doctrines are not statutory requirements. Instead, they are well-established principles intended to achieve our ultimate obligation under Vermont law to apply the standard in 30 V.S.A. § 218(a), which requires that we establish just and reasonable rates. We have previously noted that the statutory standard of "just and reasonable" affords us broad discretion in the manner in which we determine rates.²¹ The Vermont Supreme Court has stated:

The statutory basis of the Board's regulatory authority is extremely broad and unconfining with respect to means and methods available to that body to achieve the stated goal of adequate service at just and reasonable rates. 30 V.S.A. § 218 authorizes

19 . *Id.* (footnotes omitted). "The two principles thus provide assurances that ill-guided management or management that simply proves in hindsight to have been wrong will not automatically be bailed out from conditions which government did not force upon it." *Id.*

20 . For example, one of the Petitioners, Green Mountain, made significant investments in unregulated subsidiaries. For a variety of reasons, these unregulated ventures lost money. Although there was no suggestion that Green Mountain had been imprudent in making these investments or that they were not still being "used," Green Mountain ultimately had to write off a substantial portion of its investment simply because it had become uneconomic. *See* Docket 6107, Order of 1/23/01 at 26–30.

21 . *See, e.g.,* Docket 5983, Order of 6/8/98 at 2, 22–23, 25; Docket 6107, Order of 1/23/01 at 16–19.

the Board to set rates, tolls, charges or schedules or to change regulations, measurements, practices or acts of the utility relating to its service in order to insure those reasonable rates and adequate service. The choices the Board makes in this area are subject to great deference in this Court so long as it can be shown they are directed at proper regulatory objectives.²²

In exercising our statutory discretion, however, we are mindful that Vermont's rate-making policies explicitly *balance* after-the-fact reviews against the fact that utilities have substantial discretion to manage their own affairs without day-to-day regulatory intervention. Certain statutorily-defined actions require Board approval, but otherwise, oversight is limited to after-the-fact reviews, usually in the context of rate cases. Similarly, the balancing test inherent in the used-and-useful analysis is intended to provide some protection to ratepayers in the event a decision, while prudent, ultimately turns out to be economic. The rate-making process embodies these principles, by granting utility actions a presumption of reasonableness, subject to challenge and by requiring that ratepayers and stockholders share the uneconomic costs of investments that prove to be uneconomic and thus, not used-and-useful.²³

Thus, the Board has moved from relying upon after-the-fact reviews primarily where it involves a single, finite, utility action that requires prior Board approval. For example, site preparation or construction of a transmission line or generating station may not commence without prior Board approval under 30 V.S.A. § 248. Although the Board's review of such a petition may not be styled a review of the prudence of utility actions, it has the same effect as to those issues under review during the proceeding.²⁴ Thus, as to the *entry* into a proposed transaction, a finding that the proposal promoted the general good would provide the utility with

22 . *In re Green Mountain Power Corp.*, 142 Vt. 373, 380 (1983) (citations omitted); *accord*, *In re Citizens Utilities Co.*, 171 Vt. 447, 451-52 (2000).

23 . The Vermont Supreme Court has found that the appropriate function of the Public Service Board "is that of control and not of management, and regulation should not obtrude itself into place of management." *In re Green Mountain Power Corp.*, 162 Vt. 378, 386 (1994) (Board found not to have attempted to dictate individual salaries, but merely to set an overall cap on salary increases); *Latourneau v. Citizens Utilities Co.*, 125 Vt. 38 (1965) (Public Service Commission intruded into the affairs of the utility when it made a finding indicating the appropriate salary of the company president).

24 . *See* Docket 5983, Order of 2/27/98 at 215. In that proceeding, the Board did not revisit issues that were considered during the review of the Hydro-Québec contract under Section 248. Rather, the Board found Green Mountain's actions subsequent to Board approval to be imprudent.

substantial assurance that its entry into the transaction will not subsequently be determined to have been imprudent, without a need for the extraordinary relief requested here.

The Petitioners ask us to alter this balance between management responsibility and certainty of rate recovery, arguing that only a heightened level of certainty of rate recovery will allow them to enter into the proposed transactions. In essence, the Petitioners request that the Board continue to abstain from contemporaneous intervention, while also agreeing not to exercise after-the-fact review of prudence or usefulness.

Instituting such a change in policy essentially constitutes a request that we waive the ratepayer protections provided by the prudence and used-and-useful standards. Although the statute would permit the Board to abstain from applying these principles, as long as the resulting rates were just and reasonable, we conclude that we should only do so in rare circumstances and only when the requesting party makes a greater showing than a mere demonstration that the proposed transaction promoted the general good. As the Vermont Supreme Court has observed:

If a utility's income were guaranteed, the company would lose all incentive to operate in an efficient, cost-effective manner, thereby leading to higher operating costs and eventual rate increases.²⁵

A party seeking to significantly alter the long-standing balance of responsibilities must make a strong showing of clear and compelling benefits to ratepayers that would not be attainable without such recovery guarantees.²⁶

We have found such a clear and compelling benefit once. Specifically, we concluded in a number of cases that the purchase of power by Vermont electric utilities from Hydro-Québec under the Hydro-Québec Vermont Joint Owners Contract should be treated as if those purchases were prudent and used-and-useful. There are three significant aspects of these waivers, however. First, the evidence demonstrated that continued rate disallowance could lead to serious financial consequences for the state's two largest utilities. We found that avoiding such an outcome was beneficial to Vermont ratepayers and justified an exception to our application of the prudence

²⁵ . *In re Central Vermont Public Service Corp.*, 144 Vt. 46, 55 (1983).

²⁶ . This is particularly true with respect to a party's *management* of its rights and responsibilities under a proposed transaction. It is virtually impossible to *pre-determine* that future actions left to the discretion of a utility will be reasonable, prudent, and used-and-useful.

and used-and-useful standards.²⁷ Second, waiver of these rate-making principles was needed in order to allow the rate recovery necessary to avoid serious financial consequences. The Board had previously determined that the lock-in to the purchase of power from Hydro-Québec by Vermont's largest two electric utilities had been imprudent (and rulings on the prudence of the other utilities were pending).²⁸ In addition, the Board had ruled that, as to Green Mountain, the Hydro-Québec Vermont Joint Owners Contract was not economically useful (the Board had not yet resolved the issue for other utilities).²⁹ Thus, under long-standing rate-making practices, we could not allow Green Mountain and Central Vermont (and potentially other utilities) to recover their full Hydro-Québec costs *unless* we waived the application of these principles and treated the Hydro-Québec Vermont Joint Owners Contract as if it were prudent and used-and-useful.

NECNP argues that, notwithstanding our authority to grant the requested regulatory determinations, we cannot do so in this proceeding. Instead, asserts NECNP, the Board can only make such rulings in a proceeding examining utility rates under 30 V.S.A. §§ 225–227.

We find this argument unconvincing. Nothing in those sections, or in other provisions of Vermont law, limits the Board's authority to decide, outside of a rate proceeding, whether specified expenditures or investments meet the criteria of Section 218(a) and thus may be recovered in rates. To the contrary, the legislative grant of authority to the Board is quite broad. Section 203 provides that the Board's jurisdiction over regulated utilities shall be exercised by the [B]oard and the [D]epartment *so far as may be necessary* to enable them to perform the duties and exercise the powers conferred upon them by law.³⁰ As the Board pointed out in Docket 5224, if the Board approves an action, "the utility's prudence in doing so is generally not subject to further challenge, at least not by parties who participated in, or were given the opportunity to participate in, the proceedings."³¹ Similarly, Section 9 clearly grants the Board (as a "court of record") power of both law *and equity* to make orders necessary to benefit the

27 . Docket 6107, Order of 1/23/01 at 76–81; Docket 6460, Order of 6/26/01 at 29–34.

28 . Docket 5983, Order of 2/27/98; Dockets 5701/5724, Order of 10/31/94; *see also Central Vermont Public Service Co.*, 172 Vt. 14 at 26–28(2001).

29 . Docket 5983, Order of 2/27/98 at 241–248.

30 . 30 V.S.A. § 203. The Board opened this investigation pursuant to 30 V.S.A. §§ 2(c), 109, 203, 209, and 231. Order of 9/4/01 at 4.

31 . Docket 5224, Order of 12/18/87 at 9–10.

general good. In the exercise of that jurisdiction, Sections 9 and 209 of Title 30 allow the Board to address "all matters" concerning "the manner of operating and conducting any business" and "the rates of companies subject to its supervision." It is difficult to imagine a broader statutory mandate pursuant to which an agency such as the Board might review the Petitioners' filings.³²

In practice, the Board has ruled, outside of rate cases, on the prudence of certain actions, even though the rate effect of these decisions did not occur until a subsequent rate investigation. For example, in Docket 5270-GMP-1, the Board found that it would be prudent for Green Mountain to commit certain funds to effect a proposed heating system conversion.³³ In Docket 5224, the Board reviewed the reasonableness of Central Vermont's entry into a power purchase contract, concluding that it was imprudent.³⁴ As we observed in that case, such reviews do not determine retail rates. Rather, they determine a "part of the cost upon which such rates would be based."³⁵ The Board has not issued similar rulings related to whether an investment or purchase was used-and-useful except during a rate case. However, the statutory authority cited above would permit us to make such a determination in the appropriate situation, even though the rate effects would only occur later.

Thus, we conclude that statutes, logic, and precedent all indicate that the Board has the legal authority under which we *could* issue the requested findings as they relate to the entry into

³² . Section 209 provides as follows:

- (a) On due notice, the board shall have jurisdiction to hear, determine, render judgment and make orders and decrees in *all matters* provided for in the charter or articles of any corporation owning or operating any plant, line or property subject to supervision under this chapter, and shall have like jurisdiction in all matters respecting:

. . .

- (3) The manner of operating and conducting *any business* subject to supervision under this chapter, so as to be reasonable and expedient, and to promote the safety, convenience and accommodation of the public;

- (4) The price, toll, rate or rental charged by *any company* subject to supervision under this chapter, when unreasonable or in violation of law.

(Emphasis added).

³³ . Docket 5270-GMP-1, 7/18/90. "[I]t would be prudent for Green Mountain, as part of its conservation and energy management program, to commit now to fund the proposed heating system conversion at Highgate in an amount not to exceed \$785,000 for installation, engineering, architects' fees, and general contractors' fees, as identified in Attachment A to the Memorandum of Understanding." *Id.* at 17.

³⁴ . *General Order 45 Notice filed by Central Vermont Public Service Corp.*, Docket 5224, Order of 12/23/87 at 25–26, affirmed on other grounds, *In re Vicon Recovery Systems*, 153 Vt. 539 (1990). The Board conducted this proceeding pursuant to, among other statutes, 30 V.S.A. § 209.

³⁵ . Docket 5224, Order of 12/18/87 at 20.

the transactions (but *not* as to future performance). As always, such a determination is limited to the facts presented to the Board. To the extent that the Petitioners have or should have information relevant to the Board's decision that has not been presented in evidence, a ruling by the Board would not limit future consideration of that new evidence and, with a potentially different conclusion.

As to Petitioners' *future performance* of (as opposed to the *entry* into) their obligations under the transaction, we are skeptical that such a ruling would have any value. As with any prudence or rate recovery determination, the Board's ruling would be limited to the facts that are presented in the record before the time of the decision. Quite clearly, future events do not fall within this category. Thus, from a practical perspective, it would not be possible to issue rulings related to future performance.

D. The Rate-Guarantee Findings Requested by Petitioners

Turning to the specific questions raised in this proceeding, we conclude that the Petitioners have not demonstrated sufficient basis for departing from our long-standing regulatory practices by granting the requested findings. Although the record demonstrates that the transactions will provide valuable benefits to Vermont ratepayers, the Petitioners have not shown that the benefits are both so clear and convincing as to outweigh the value of long-standing revenue recovery rules *and* unattainable absent extraordinary relief. We make one exception to this determination: we affirmatively find that the entry into the Sale Agreement and related transactions by VYNPC, Green Mountain and Central Vermont is the preferred option among those reasonably available at the present time and, therefore, promotes the general good.³⁶ This conclusion has the same effect as a finding that the sale is the prudent option.

We also conclude that the risk of a future rate disallowance based upon the prudence and used-and-useful doctrines is greatly overstated. Although we decline to waive our traditional rate-making practices, the evidence demonstrates that there is little likelihood that a future Board would find the transactions not to be used-and-useful. In addition, we see no basis on which to

³⁶ . This finding is, of course, dependent upon the assumption that the record before us includes all relevant information that Central Vermont and Green Mountain have or should have in their possession for the evaluation of such a decision. *See also*, text at fn. , below.

disallow costs based upon flaws in the process VYNPC and its owners employed in selling Vermont Yankee. Our analysis of the application of these regulatory doctrines to the facts before us is set out below.

We recognize that Petitioners have argued that treatment of all transaction-related costs as if they were prudent and used-and-useful is a necessary component of the sale. ENVY has argued that these findings are necessary to ensure that the Vermont Sponsors will be able to pay for power under the Power Purchase Agreement. These comments raise two concerns. First, we are extremely disturbed with the concept that Vermont utilities are unwilling to take actions that benefit themselves and their ratepayers unless we waive normal regulatory principles. This Board compensates utilities for the risks they take by including in rates a reasonable rate of return that incorporates a significant premium above the rate of risk-free financial instruments. In exchange, we expect that utilities will take actions consistent with their public service obligations, including pursuing transactions such as the proposal before us. Utilities should not require extraordinary relief as a precondition of meeting these obligations.

Our second concern is the suggestion that rate guarantees are necessary to assure ENVY that the Vermont Sponsors can meet their purchase obligations. There has been no suggestion that rate disallowances in the past have placed Vermont utilities in a position where they could not meet their payment obligations. Even in Green Mountain's situation, the Company's financial difficulties stemmed less from the disallowance of costs associated with the Hydro-Québec Vermont Joint Owners Contract than with other factors (*e.g.*, investments in *unregulated ventures*).³⁷ Moreover, the Purchase Agreement itself includes mechanisms by which ENVY can obtain financial assurances from purchasers if ENVY has valid concerns about their ability to fulfill purchase obligations.³⁸ And in neither case did either Central Vermont or Green Mountain *ever* fail to meet all purchase obligations.

Overall, it appears that the Petitioners seek a waiver of traditional standards in this area largely because of an apparent misunderstanding of what those criteria actually mean.

1. Prudence

³⁷ . Docket 6107, Order of 1/23/01 at 25–30.

The Petitioners requested findings related to prudence have two aspects: the prudence of the transactions themselves and the prudence of the process that led to the transactions. Our analysis of future rate treatment examines each of these issues separately.

The prudence of the transactions is essentially the same as the question of whether the sale, under the terms set out in the Sale Agreement, promotes the general good of the state. As we explain in Part V, above, VYNPC and its owners have three basic choices at the present time.³⁹ VYNPC can continue to own and operate Vermont Yankee and seek to improve the value of the asset by pursuing options such as power uprate and license extension. VYNPC can also decide to close Vermont Yankee on economic grounds. The third choice is the sale to ENVY. The evidence shows that under the most likely scenarios, VYNPC, its owners, and Vermont ratepayers will benefit from pursuing the sale to ENVY. For this reason, we concluded above that the sale would promote the general good of the state. This conclusion has the same effect as a finding that the sale is prudent.⁴⁰

In fact, the benefits to the Vermont Sponsors and ratepayers from the sale to ENVY are such that we would find it unreasonable for VYNPC and its owners to use our decision not to issue the requested regulatory rulings as a basis for declining to complete the sale. Based upon the evidence presented in hearings, failure to close on the Sale Agreement would subject Vermont ratepayers to much higher costs over the next ten years than would completion of the sale. Central Vermont and Green Mountain should seek to secure these benefits for ratepayers.

We do emphasize that Central Vermont and Green Mountain retain an affirmative obligation to continue to reevaluate the merits of the transaction. If the bases for their decision to sell Vermont Yankee and purchase power from ENVY have changed (such as, for example, due to changes in wholesale markets or in their assessment of the value of ownership), Central Vermont and Green Mountain have the affirmative duty up to and through the date of closing to evaluate the changes and determine whether the proposed transactions still are in the best interest

38 . Exh. VY-Wiggett-7.

39 . Arguably, there is a fourth choice: to reject the present sale and make new efforts to sell Vermont Yankee. The evidence offers no basis for believing that such a future sale would be at a materially greater value than that in the pending Sale Agreement. Moreover, after two failed sales attempts, we question whether a future sale would even generate much interest. Thus, we do not consider this to be a realistic option.

40 . Docket 5983, Order of 2/27/98 at 175-77.

of ratepayers. We do not, however, see our decision not to grant the extraordinary regulatory approvals sought in Paragraph 15 of the MOU as a reasonable basis for declining to enter what would otherwise be a favorable transaction.⁴¹

Our finding that the transactions promote the general good does not translate to a conclusion relative to the *process* that produced the Sale Agreement. On this issue, as on the question of treating the transactions as if they were used-and-useful, we decline to rule on the Petitioners' requests. Instead we will adhere to the standard American utility rate-making practice of not providing assurance of rate recovery in advance of a challenge to the inclusion of associated costs in rates. We do observe, however, that the risks of a rate disallowance associated with the auction and negotiation process appear to be small. To the extent that imperfections in the process leading up to the Sale Agreement may exist, it would be virtually impossible to quantify the effect of those imperfections, since we would have no way of determining what would have occurred if VYNPC had taken different actions. We have concluded that, within the parameters of the offering memorandum, the process yielded fair-market-value for the offer made for VYNPC; *i.e.*, sale of the plant with an associated Power Purchase Agreement for the remaining license term.⁴² We find the record inconclusive as to the value that would have been received for the plant with a shorter or non-existent Power Purchase Agreement. We do not see any likelihood that this question can ever be definitively resolved. While we are not here formally ruling on this point, we cannot now see any basis for quantifying a rate disallowance for this reason.

2. Use

This Board has previously made clear that we should treat an investment or purchase decision as used-and-useful only if it meets both prongs of the test; *i.e.*, is both used *and* economically useful.⁴³ To be "used," the asset must be actually providing service to ratepayers and must be necessary to provide service to ratepayers. The reverse is also true: assets that do

41 . Green Mountain and Central Vermont are compensated through their rate of return precisely because they take such risks. Ratepayers should not be forced to pay such compensation to utilities, yet have the utilities then refrain from pursuing the most cost-effective avenue simply because the Board declines to remove the risk.

42 . See p. , above.

not provide service to ratepayers (or are not expected to provide such service in the near future), are not considered to be used and their costs may be excluded from rates.⁴⁴

As we examine the characteristics of the transactions here, we find it difficult to envision a set of circumstances in which the Power Purchase Agreement would have costs, yet not be used.⁴⁵ This is because VYNPC's purchase obligations under the Power Purchase Agreement (and those of Green Mountain and Central Vermont under the Amendatory Agreement) require VYNPC to purchase power *only* when ENVY supplies it.⁴⁶ If Vermont Yankee is operating and supplying power, VYNPC must purchase it. But at these times, Vermont Yankee, through the Power Purchase Agreement, *will* be supplying power that is "used" to Green Mountain and Central Vermont customers.

When Vermont Yankee is not operating — and therefore is not being used to provide service to Green Mountain and Central Vermont ratepayers — VYNPC incurs no costs. Thus, even though the Power Purchase Agreement may not be used at such times, there would also be no associated costs that could be subject to disallowance.

Although we conclude that a future disallowance is highly unlikely, we decline to provide a ruling on this issue in advance of a challenge to the recovery of the costs during a rate investigation.

3. Economic Usefulness

The second prong of the used-and-useful doctrine is that the asset or purchase must be economically useful. In assessing the economic usefulness of a purchase, we have generally compared the value of the payments for the purchase to the value of market-based alternatives. For example, we excluded costs associated with Green Mountain's purchases under the Hydro-

43 . Docket 5983, Order of 2/27/98 at 242.

44 . *See Letourneau v. Citizens Utilities Co.*, 128 Vt. 129.

45 . Although the Petitioners' request for findings relates to the transactions as a whole, we need only examine the Power Purchase Agreement. After the closing of the sales transactions, the only future costs that VYNPC and its Vermont Sponsors will incur are those arising from the purchase of power under the Power Purchase Agreement. Thus, these are the only costs that would be included in the adjusted test year for future rate proceedings and which would be subject to possible disallowance.

46 . *See* exh. VY-Wiggett-7.

Québec Vermont Joint Owners Contract by comparing the degree to which that contract was expected to be above-market over the remainder of the Contract.⁴⁷

In examining the application of the economic usefulness test to the Power Purchase Agreement, it is simplest to look at the Power Purchase Agreement in two segments: the initial three years and the period after November 2005 when the Low Market Adjuster takes effect, and to consider it overall. The evidence demonstrates that viewed alone, the Power Purchase Agreement is well above currently predicted market prices for the initial three years. However, appropriate application of the economic usefulness test cannot simply compare the Power Purchase Agreement to market prices. Rather, it is necessary to examine the sales transaction as a whole. It is clear from the structure of the Sale Agreement and Power Purchase Agreement that ENVY has agreed to provide a sizeable up-front payment, in return for an above-market sale of power through the Power Purchase Agreement. ENVY's testimony on the adjustment to the purchase price based upon an earlier start date for the Low Market Adjuster demonstrates this relationship.⁴⁸ For example, by starting the Low Market Adjuster in January 2003, ENVY would reduce the purchase price by approximately \$115 million. This figure offsets the above-predicted-market component of the Power Purchase Agreement prices during the first three years of the Power Purchase Agreement. Thus, if we evaluated the sales transaction as a whole for the period from July 2002 through 2005, there appears to be no basis to conclude that the Power Purchase Agreement is above-market and thus not economically useful.

As we examine the period of time after the Low Market Adjuster begins, we reach a similar conclusion. During this period, VYNPC, Green Mountain, Central Vermont, and, as a result, ratepayers, will pay the lower of two rates: a fixed price set out in the Power Purchase Agreement or the price triggered by the Low Market Adjuster, which reflects the market price, an adder for installed capacity, and a 5 percent payment for the contract's price cap, which creates an upper limit and still allows any remaining drop in market prices to be passed through to ratepayers. Essentially, the economic usefulness test would look at the reasonableness of the 5 percent payment. In the context of a Power Purchase Agreement with a price cap to protect

47 . Docket 5983, Order of 2/27/98 at 208.

48 . Keuter reb. pf. at 8; *see also* exh. VY-43 at 12.

ratepayers in the event of higher market prices, it is highly probable that any future Board would find this small payment for a price cap to be reasonable.

Finally, when we consider the entire term of the transactions (the initial payment, plus the 2002–2005 period, plus 2006–2012), we see that if each part is likely to be economically useful, the total term would be so, too.⁴⁹ We do not, however, rule upon this issue at the present time, but will make a formal decision when some party seeks to disallow recovery of costs in a future rate case.

⁴⁹ . This is particularly so, since a key beneficial effect of the transactions is to replace high existing cost-of-service FERC-approved wholesale power commitments with the lower prices of the Power Purchase Agreement. *See, e.g.*, discussion above at 40. (§V.B.2.a)

I. Introduction and Overview

E. Summary

Sixteen months ago, this Board rejected a request to sell the Vermont Yankee Nuclear Power Station ("Vermont Yankee") to AmerGen Energy Company, L.L.C. ("AmerGen"). We concluded that the proposal could not "as a matter of law, be found to promote the general good."⁵⁰ Today, we apply that same standard and substantially approve a much improved proposal to sell Vermont Yankee, this time to Entergy Nuclear Vermont Yankee, LLC ("ENVY").⁵¹ The major components of the transaction are the sale of Vermont Yankee for a fixed price coupled with a commitment by the current owners of VYNPC to purchase power from Vermont Yankee for the remaining term of its license (*i.e.*, through 2012).

In today's Order, we approve the sale of Vermont Yankee and the associated commitment for the present owners to purchase 510 MW of power from the station until 2012.⁵² We do so for two primary reasons. First, we conclude that ENVY and ENO will be likely to operate the plant as well as, or better than, the current owners. Second, we find that, under most reasonably foreseeable scenarios, the transactions are highly likely to produce an economic benefit for

50 . *Investigation into General Order No. 45 Notice filed by Vermont Yankee Nuclear Power Corporation re: proposed sale of Vermont Yankee Nuclear Power Station and related transactions*, Docket 6300, Order of 2/14/01 at 2.

51 . Vermont Yankee Nuclear Power Corporation ("VYNPC"), Central Vermont Public Service Corporation ("Central Vermont") and Green Mountain Power Corporation ("Green Mountain") have now requested that the Vermont Public Service Board ("Board") approve the sale of Vermont Yankee to ENVY. Central Vermont and Green Mountain own (between them) 55 percent of the shares in VYNPC, the company that in turn owns Vermont Yankee. These are the only owners selling electricity at retail in Vermont. In this Order, we refer to VYNPC, Central Vermont, Green Mountain, ENVY, and Entergy Nuclear Operations, Inc. ("ENO") (the company that will operate Vermont Yankee following the sale) collectively as the "Petitioners." We also refer to ENVY and ENO jointly as "Entergy," whereas we refer to their parent corporation as the Entergy Corporation.

The Vermont Department of Public Service ("Department") (the entity charged by law with representing the interests of the people of the state) also recommends that we authorize the sale of Vermont Yankee. The Petitioners and the Department entered into a Memorandum of Understanding ("MOU") in which the Department agrees to support the sale, upon certain conditions. Exh. VY-42.

52 . Exh. VY-1 at exh. E, Schedule B. The actual power purchase amounts are expressed in terms of energy purchases (rather than capacity); they vary monthly.

Vermont ratepayers. Together, these findings lead us to conclude that the sale will promote the general good.

The safe operation of Vermont Yankee is a critical concern for residents of Vermont. ENVY and ENO (on their own and through the ability to tap the broader resources of their parent, Entergy Corporation) have expertise in the ownership and safe operation of nuclear facilities and the ability to access greater resources than the present owners. These capabilities persuade us that Vermont Yankee will continue to be a safe source of power.

Green Mountain and Central Vermont will continue to receive power from Vermont Yankee following the sale, but the costs they pay for that power will be lower than their current commitments. Therefore, the sale will reduce the electric rates for Central Vermont and Green Mountain customers over the next ten years below the levels consumers would face if Green Mountain and Central Vermont continued to own and operate Vermont Yankee.

In addition, the sale has the advantage of transferring to ENVY significant financial risks associated with continued ownership of Vermont Yankee. If the costs of operation increase (due to equipment failures, increased security or other reasons), ENVY will bear the additional expenses; Green Mountain, Central Vermont, and Vermont ratepayers will be shielded. Similarly, increases in the contributions needed to ensure decommissioning upon shutdown will not be passed on to Vermont consumers.

The sale also provides significantly greater economic benefits to Vermont ratepayers than would an earlier closure of Vermont Yankee. Under all scenarios, an immediate shutdown of Vermont Yankee would increase costs, yet would still leave radioactive spent fuel on-site, perhaps for decades.

Our approval of the proposal before us is not absolute. We find that the proposal before us will promote the general good only if modified in the following four ways:

- Green Mountain and Central Vermont shall, in April 2003, submit updated costs of service adequate to determine the propriety of a rate decrease.
- If VYNPC receives Nuclear Electric Insurance Limited disbursements, access to excess funds in the Spent Fuel Disposal Trust, or claims related to the Department of Energy's defaults under the DOE Standard Contract under Section 2.2(i) of the Sale Agreement, Green Mountain and Central Vermont shall submit a plan for using their share of those funds to benefit ratepayers. The plan shall consider the application of

a significant portion of these benefits towards the development and use of renewable resources.

- We do not accept Paragraph 3 of the MOU, which provides that ENVY will share any excess decommissioning funds with ratepayers. Instead, all money remaining in the fund shall be returned to ratepayers, consistent with the present Decommissioning Trust.
- We do not accept Paragraph 16 of the MOU, in which the Petitioners and the Department request that the Board treat costs associated with the sale and power purchased from ENVY *as if* they were prudent and used-and-useful, thus essentially waiving long-standing regulatory principles designed to protect ratepayers. We are convinced that, among the three options now available to Vermont Yankee's Sponsors (continued ownership, early closure, or sale to ENVY), the sale is the best choice and, therefore, the prudent one. Also, as a factual matter, it seems unlikely that a future Board would be presented with facts that could persuade it to order a substantial cost disallowance arising from the proposed transactions. To the contrary, the evidence presented to the Board in the current record suggests that the transactions are likely to be considered both used and economically useful. However, the Petitioners have not here persuaded us that we should now depart from consistent and long-standing regulatory practices and provide an unprecedented "before-the-fact" guarantee of future rate recovery.

F. Overview

Vermont Yankee is one of 103 operating nuclear power plants in the United States and is the largest generating station within the state of Vermont. Since it began operating in 1972, Vermont Yankee has been providing almost one-third of Vermont's electricity. To date, it has proven to be a reliable source of power, with one of the best operating records of boiling water reactors in the country over the past years.⁵³

At the same time, Vermont Yankee has been the source of much public controversy; most of it concerning the concept of nuclear power in general, and some of it specifically directed at the plant and its current management. Many members of the public who commented oppose the continued operation of Vermont Yankee. These public commenters cite concerns about continued on-site storage and subsequent disposal of high-level radioactive waste. They also point to the possibility of terrorist actions directed at Vermont Yankee. In sharp contrast, a smaller, but significant number of other public commenters urge us to approve the sale, praising

53 . Barkhurst reb. pf. at 20.

Vermont Yankee for its safe operation, its actions as a good corporate citizen, and its role as a major employer in southeastern Vermont. Commenters supporting the sale also argued that ENVY will maintain Vermont Yankee as a favorable source of power for Vermont at stable prices.

Throughout our consideration of the proposed transaction, we have relied upon the formal evidentiary record before us; but we have looked at it with every effort to give serious consideration to the views of members of the public. In other words, we have seen the public comments as a great aid in determining what questions to ask; but we have relied upon record-tested evidence when reaching our answers. This includes the extensive sworn testimony from expert witnesses presented by the numerous parties in this case. Vermont law mandates that we weigh this evidence, consider the public comments, and determine whether the sale promotes the general good of the state.

Petitioners' proposal was presented primarily as a choice between continued ownership and operation of Vermont Yankee by VYNPC, as compared to the sale of Vermont Yankee to ENVY. However, as we declared in Docket 6300, and affirmed in this Docket's Scoping Order, a third option is also relevant. At the present time, VYNPC has the option of closing Vermont Yankee. Although none of the intervenors opposing approval of the petition recommended that the Board take steps that would lead to the imminent shutdown of Vermont Yankee, and no witness recommended that action, the Board received many public comments suggesting that the Board should require the immediate closure of Vermont Yankee. The Board has carefully considered whether the benefits of closure exceed those likely to accrue either through approval of the proposed transactions or retention of ownership by VYNPC. We have also considered whether we should deny approval of the proposed transactions for the option-value of allowing Vermont utilities the possibility of closing Vermont Yankee at some future time.

After comparing the three fundamental choices — (1) continued ownership and operation by VYNPC, (2) sale to ENVY, and (3) early shutdown — we conclude that approval of the Purchase and Sale Agreement ("Sale Agreement") is the preferred option and will promote the general good. The six following factors lead us to this conclusion.

First, we have looked at Entergy's record of plant operation and its current staff, resources, expertise, and incentives. The record on these points persuades us that ENVY and

ENO are likely to run the plant as well as or better than the current owners. The proposed owner and operator of Vermont Yankee, ENVY and ENO, respectively, are capable companies. These companies, and their parent, the Entergy Corporation, have demonstrated the financial capability and technical expertise needed to operate Vermont Yankee safely. As added protection, Entergy Corporation has committed to financial guarantees that will assure that ENVY has sufficient capital to operate Vermont Yankee or to transition to decommissioning should ENVY decide to close the station. Also, they will retain the facility's current staff, with its site-specific expertise.

ENVY and ENO also have (on their own or through their affiliates) significant experience operating nuclear plants and the ability to draw on experience from the other nuclear stations owned by Entergy Corporation. This expertise — and their resources — exceeds that of VYNPC, which is a single-asset owner. Because of these greater resources and expertise, we expect that ownership and operation by ENVY and ENO will be at least as safe as it would be under continued ownership.

Second, we have tested the economic effects of the proposal over a range of possible scenarios, including the following:

- Likely changes in the prices of power on the wholesale markets;
- Changes in operating expenses, including contributions to the fund to pay for eventual decommissioning;
- Increase in power production resulting from a potential power "up-rate" at Vermont Yankee;⁵⁴
- The possible extension of Vermont Yankee's operating license beyond 2012;
- Increased costs to address security needs; and
- The effects of a major outage at Vermont Yankee due to equipment failure or sabotage.

The economic analyses presented by the parties show that under almost all scenarios (including the most likely ones), Vermont ratepayers will benefit from the transfer of ownership to ENVY. Over the remaining ten years of Vermont Yankee's operating license, the net costs to Green Mountain, Central Vermont, and (as a result) Vermont ratepayers are likely to be substantially less if the station is sold to Entergy pursuant to the Sale Agreement than they would be if

VYNPC retained ownership or if the owners closed Vermont Yankee this autumn.⁵⁵ The substantial purchase price also provides Vermont Yankee's owners with significant up-front capital, allowing them to repay all Vermont Yankee debt, and avoiding the "front-loaded costs" problem of the AmerGen proposal.

Third, we find that the sale of Vermont Yankee transfers operating cost and decommissioning cost risks to ENVY. At the present time, the costs associated with major repairs or outages at Vermont Yankee are passed on to Vermont ratepayers. Ratepayers thus bear the risk of outages or increased operating costs. They also face the risk that the costs of decommissioning will exceed current estimates. Following the sale, in the event of an outage, Vermont ratepayers will still need to pay to replace the power normally supplied by Vermont Yankee, but they will be shielded from any increased operation and maintenance, shutdown, or decommissioning costs. This protects Vermonters *and* creates an incentive for ENVY to close the plant if its operating costs seem likely to exceed market value.

Fourth, the Purchase Power Agreement sets out fixed prices at which VYNPC (and thereby Green Mountain and Central Vermont) will purchase power from ENVY. These prices are substantially below the "currently committed" operating costs of Vermont Yankee over the remaining term of its license. Over the remaining term of the license, this will reduce costs for ratepayers. The fixed prices also establish a cap on the charges for Vermont Yankee power. This cap protects ratepayers from higher prices for power that they would incur if the Vermont Sponsors purchased power under higher wholesale market prices. Accompanying the cap is a Low Market Adjuster (commencing in November 2005), which will reduce the otherwise fixed prices under the Power Purchase Agreement if wholesale market prices for power turn out to be less than 95 percent of the price caps set out in the contract. The Low Market Adjuster means that ratepayers will pay *the lower of* the market price for uncapped power (plus a 5 percent premium for a price cap) or the fixed prices set out in the Power Purchase Agreement. In effect,

54 . Vermont Yankee's current capacity is approximately 510 MW. It is possible to make operational changes and physical improvements to Vermont Yankee that will increase the capacity from between 1.5 and 20 percent, depending upon the specific changes. These changes are generally referred to as a power "up-rate."

55 . As we explain below, there are certain combinations of events that could make it more cost-effective for the present owners to retain ownership of Vermont Yankee. The evidence demonstrates that these scenarios are unlikely to develop.

it has the post-2005 benefit of allowing roughly one-third of the Vermont Sponsors' power costs to benefit from low market prices; at the same time, the fixed prices mean that, in conjunction with other major components of Green Mountain's and Central Vermont's supply portfolios, more than three-quarters of those companies' total energy purchases are shielded against very high price markets.⁵⁶

Fifth, ENVY has made other important commitments. The MOU provides increased access to Vermont Yankee by the state's nuclear engineer. It also grants Vermont Yankee's Sponsors, including Green Mountain and Central Vermont, the first opportunity to negotiate for additional power if ENVY increases the output of Vermont Yankee or extends the operating license. ENVY also agrees, through the MOU, that the Board has complete jurisdiction to decide whether to renew ENVY and ENO's Certificates of Public Good ("Certificate") if ENVY seeks to extend its operating license past the expiration of its present term. This clarification of authority and the contractual commitment with the Department (on which our approval relies) provide assurances to Vermont that ENVY and ENO cannot thwart state review if ENVY plans to operate Vermont Yankee beyond 2012.

Finally, our analysis of an early closure of Vermont Yankee indicates that it would almost certainly lead to higher rates for Vermont consumers than would either the sale to ENVY or continued ownership and operation by VYNPC. This conclusion that early closure would increase costs is the same whether the owners immediately decommission Vermont Yankee or delay decommissioning. Early closure also does not achieve many of the environmental and safety benefits suggested by members of the public. Even if the owners were to immediately decommission Vermont Yankee, the highly radioactive spent fuel would remain on-site for a protracted period (testimony suggested that it would not be removed before 2030).⁵⁷

We cannot assume, as urged by several members of the public, that the power from Vermont Yankee can be quickly replaced by renewable resources. Vermont already gets a higher percentage of its power from renewable sources (mostly large hydro-power dams) than

⁵⁶ . Green Mountain and Central Vermont obtain more than 75 percent of their power from Vermont Yankee, Hydro-Québec, or qualifying facility purchases under 30 V.S.A. § 209(a)(8) and Board Rule 4.100. The price of all of this power is capped and will not rise, even if wholesale market prices increase greatly.

⁵⁷ . Tr. 4/1/02 at 111 (Cloutier)

many other states.⁵⁸ With the exception of large hydro dams, renewable energy resources tend to be relatively small sources of generation, particularly in relation to Vermont Yankee. Thus, instead of renewable sources, Vermont utilities would need to rely on fossil fuel generating stations to replace much of the power now provided by Vermont Yankee. This option would have the very serious disadvantage of significantly increasing the emission of air contaminants and greenhouse gases.

While we do not find that Vermont can promptly replace Vermont Yankee with renewable resources, we *are* convinced that more effort to encourage the development of renewable sources of power would be beneficial. Vermont needs to take more steps to help renewable energy overcome the market barriers that it faces. CLF has proposed a renewable fund to achieve these goals. We do not accept CLF's proposal, which we find to be insufficiently developed, at the present time. Nonetheless, we will consider further investigation of the establishment of a renewable energy fund in the future. We are also convinced that Vermont utilities should more fully integrate renewable energy sources into their planning so that they can meet incremental needs for power through such sources. To this end, in this Order we require, that, if VYNPC receives additional money due to Nuclear Electric Insurance Limited distributions, excess funding of the Spent Fuel Disposal Trust (after payment of the one-time fee for pre-1983 spent fuel obligations under the Department of Energy's Standard Contract), or claims related to the Department of Energy's defaults under the DOE Standard Contract under Section 2.2(i) of the Sale Agreement, Green Mountain and Central Vermont submit a plan for ensuring that their share of the funds are used to benefit ratepayers. The plan shall consider the application of a significant portion of these benefits towards the development and use of renewable resources.

We conclude for the reasons cited above that the proposed transactions are in the best interest of ratepayers. However, two aspects of the proposal before us are not acceptable. First, in the MOU, the Department and the Petitioners agreed to ask the Board to treat the transactions, the Petitioners' actions prior to the close of evidence, the MOU, and the power purchased from Vermont Yankee as part of the transaction *as if* they were both prudent and used-and-useful.

58 . *Funding Vermont's Future: Comprehensive Energy Plan and Greenhouse Action Plan*, VTDPs, July 1998.

Granting the request would effectively assure Central Vermont and Green Mountain of rate recovery for all costs associated with the sale, including the purchase of their share of the current power output of Vermont Yankee.

The principle that utility investments and purchases must be both prudent and used-and-useful is long-established in this state and throughout our nation. These standards are intended to protect ratepayers from the effects of unwise or uneconomic decisions by utilities. The Petitioners' requests, however, would eliminate these ratepayer protections and convert them, instead, to a shield for utilities. Although the transactions provide significant benefits to Vermont ratepayers, we do not find them so beneficial as to justify fundamentally altering the balance of risks and responsibilities between the companies and ratepayers and completely waiving these long-standing ratepayer protections.

We do conclude that, as a factual matter, Green Mountain and Central Vermont face little risk of material future disallowance based upon these regulatory doctrines. The evidence demonstrates that the proposed sale to ENVY represents the best of the three options now available to VYNPC and its owners. Although VYNPC retains the responsibility to reevaluate the merits of the sale before making its final decision, *based on the facts as presented to us in the record now*, completing the sale appears to be the prudent choice at the present time.⁵⁹ As we explain in more detail below, we also expect that the factual conditions necessary to find the Power Purchase Agreement payments "unused" could not be met (since no payments are required if Vermont Yankee does not deliver power), and that conditions showing the Power Purchase Agreement to not be "economically useful" over its full term are very unlikely, given the up-front initial payments and the Low Market Adjuster protection in later years.

The second aspect of the transactions that we do not accept is set forth in Paragraph 3 of the MOU between the Petitioners and the Department. At the present time, if (following decommissioning of Vermont Yankee) excess money remains, the Decommissioning Trust mandates that it be returned to the consumers of VYNPC's Sponsors.⁶⁰ Under the Sale

⁵⁹ . We see no reasonable basis for VYNPC to use our decision not to grant the requested regulatory guarantees as a reason for abandoning the sale; however, VYNPC still retains, to the time of closing, an independent affirmative duty to close the transaction only if it appears beneficial.

⁶⁰ . VYNPC's Sponsors are shown on p. , below.

Agreement, as modified by Paragraph 3, ENVY retains all excess funds if decommissioning is completed before 2022. If decommissioning is completed later, ENVY would share 50 percent of the excess funds with customers of VYNPC's Sponsors. The Petitioners have not persuaded us why it is reasonable to change the status quo so that the ratepayers who have contributed to the fund no longer receive all of the excess money following decommissioning. This is particularly so since ENVY did not demonstrate that it considered such funds to be an important component of the sale.⁶¹ Even more importantly, we do not wish to approve a term that creates an incentive for Entergy to "cut corners" in any future decommissioning process.

Our Order also requires Green Mountain and Central Vermont to file an updated cost-of-service in April 2003. The retail rates of those utilities are currently based, in significant part, upon the payments that they currently make to VYNPC based upon Vermont Yankee's operating costs; beginning next year, these exceed the fixed charges set out in the Power Purchase Agreement. Green Mountain and Central Vermont have not proposed to reduce their rates. The filing of an updated cost-of-service, based upon a test year ending December 31, 2002, will enable the Board and Department to assess whether changes in retail rates are needed to ensure customer benefits.

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1. The Power Purchase Agreement

With regard to the second category of factual determinations, *i.e.*, those related to the proposed power purchase contracts, our analysis focuses upon the following issues:

- Quantification of the difference, if any, between the contract prices and forecast market prices for alternative sources of wholesale power.
- Evaluation of the consideration received by the Vermont Sponsors in exchange for any commitments to long-term power purchases that exceed forecast market prices.

G. The Proposed Transactions

⁶¹ . We also find that the likelihood of large excess decommissioning funds is remote.

1. The proposed ENVY purchase of Vermont Yankee is comprised of two principal parts, a Purchase and Sale Agreement governing the terms of the transfer of the nuclear facility's ownership, and a Power Purchase Agreement, which commits Vermont Yankee's current owners to purchase the facility's expected power output through March 21, 2012, the remainder of Vermont Yankee's current NRC license. *See findings 2–13 below.*

2. Under the Sale Agreement, ENVY is to pay a total of \$180 million in cash for Vermont Yankee: \$116.2 million for the plant and switch yard; an estimated \$35 million for the adjusted book value of the fuel inventory; and \$28.7 million for non-fuel inventories. Items included in the Sale Agreement are the nuclear generating facility, including fuel and non-fuel inventory, decommissioning trust funds, decommissioning liability, switch yard, assets associated with defined benefit and welfare plans, and pre and post-closing nuclear liabilities. Exh. VY-1; Wiggett pf. at 12.

3. Excluded from the Sale Agreement are: (1) Nuclear Electric Insurance Limited account balance; (2) VYNPC's obligation to pay the Department of Energy's one-time fee under the DOE Standard Contract with respect to fuel used to generate electricity prior to April 7, 1983, and the Vermont Yankee Spent Fuel Disposal Trust that provides funding for that payment; (3) claims of VYNPC related to the Department of Energy's defaults under the DOE Standard Contract; (4) liabilities related to pre-closing off-site disposal of hazardous substances; and (5) pre-closing employee liabilities. Exh. VY-1; Dabbar pf. at 24–26.

4. The fuel and non-fuel inventory payments are subject to adjustment at closing. The fuel adjustment is essentially neutral since Vermont Yankee will have paid more for the fuel to be loaded at the next refueling outage (scheduled for this autumn) than originally estimated but will be reimbursed more by ENVY at closing. Non-fuel inventories are estimated to be \$28.7 million at closing. Exh. VY-1; tr. 4/4/02 at 290 (Wiggett).

5. The approximately \$180 million purchase price will be sufficient to repay all of VYNPC's debt, and a significant portion of the investment in VYNPC carried on the balance sheet of Green Mountain and Central Vermont. Sherman pf. at 6.

6. Five million dollars of the purchase price will not immediately be returned to the Sponsors, but will be retained in VYNPC. This \$5 million in equity capital will be used to meet ongoing Vermont Yankee expenses. In the future, VYNPC will be responsible for liabilities not

transferred to ENVY, and for distributions from Nuclear Electric Insurance Limited. Wiggett pf. at 13–14, 21; Sherman supp. pf. at 3.

7. VYNPC will continue to have certain obligations under the Purchase Power Agreement. Wiggett pf. at 16–17.

8. Vermont Yankee's current owners may be required to make an additional contribution to the decommissioning fund of up to \$6.4 million. This amount covers fund contributions previously scheduled to be made in the period between the Sale Agreement and the closing, as well as potential shortfalls in the decommissioning fund due to lower-than-expected investment returns for the period prior to closing. Tr. 4/4/02 at 289 (Wiggett).

9. The Sale Agreement provides that adjustments may be made to the purchase price if certain events constitute a "Material Adverse Effect."⁶² Exh. VY-1 § 1.1(90), 7.1.

10. The proposed transaction includes a two-stage obligation for VYNPC to continue to purchase 100 percent of the Vermont Yankee generating facility's anticipated electricity output through the term of its existing license. The first stage extends from the transactions' closing date to the earlier of the completion of Refueling Outage #25 or November 1, 2005, and is a commitment to take Vermont Yankee's output of up to 510 net megawatts, at prices specified in the Purchase Power Agreement.⁶³ The second stage is a commitment running from November 1, 2005, through March 21, 2012. During this period, VYNPC will purchase power at either the lower of specified annual prices or market prices (plus a premium), through the Low Market Adjuster. Energy market prices will be increased by 15 percent to pay for installed capacity charges, ancillary services and the value to the consumer of having a price cap. Exh. VY-1, exh. E; Dabbar pf. at 29.

11. The Low Market Adjuster provides for VYNPC (and as a result Central Vermont and Green Mountain) to pay the lower of either the base price or an adjusted price using a specified formula. Under the Low Market Adjuster's formula, if the market price falls below 95 percent of

⁶² . A "Material Adverse Effect" is defined as any change adversely affecting the operations of Vermont Yankee that (a) could require the expenditure within three years of closing of over \$1 million (as a result of a single change), or in excess of \$2.5 million in aggregate, or (b) would be reasonably likely to prevent any party of the transaction from performing any of its material obligations. Specifically excluded from the definition are changes generally affecting the electric industry or nuclear generating facilities as a group.

the base price of the Power Purchase Agreement, the adjusted price is 105 percent of the 12-month average "market price", as defined in the Power Purchase Agreement. Market price is defined as the average spot clearing price of the previous 12 months, plus the actual published clearing price for installed capability ("ICAP"). If there is no published clearing price for ICAP in New England, a proxy value for ICAP of 10 percent (or such other ancillary cost as the parties may mutually agree is the nearest equivalent to ICAP) will be added to the trailing 12-month ISO New England average monthly energy clearing price to establish the "market price." Exh. VY-1, exh. E; exh. VY-42 at ¶ 14; tr. 2/4/02 at 215 (Wiggett).

12. The Power Purchase Agreement's base prices range from \$42/MWh in 2003, to \$39 in 2006. Each year after 2006, base prices increase by \$1 per year until the 2012 base price is \$45/MWh. Exh. VY-1, exh. E; Dabbar pf. at 29.

(a) Power Purchase Agreement Prices Compared to Status Quo Operating Costs

13. Vermont Yankee projects \$1.337 billion (present value) in costs through the remaining license term. In contrast, the Power Purchase Agreement represents an aggregate cost obligation of \$1.066 billion, excluding potential benefits from the Low Market Adjuster. Exh. CPVS-Rebuttal-Page-1 at 1; exh. VY-Wiggett-9 Revised.

14. The annual prices in the Power Purchase Agreement as compared to VYNPC's projected operating costs expressed on a dollars per KWh basis are as follows:

Projected Operating Costs Under Current Ownership vs. ENVY Power Purchase Agreement											
Date	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
VY Costs	\$4.99	\$4.22	\$5.37	\$5.52	\$4.57	\$5.68	\$5.94	\$5.18	\$6.40	\$6.68	\$14.57
PPA	\$5.14	\$4.20	\$4.28	\$3.95	\$3.90	\$4.00	\$4.10	\$4.20	\$4.30	\$4.40	\$4.50

Exh. GMP-NRB-12; exh. VY-1, exh. E.

15. The net present value of Central Vermont's share of projected Vermont Yankee operating costs from July 2002 through March 2012 are estimated at \$438 million. The net present value of Central Vermont's commitment under the Power Purchase Agreement over this same time period is \$332 million. Exh. GMP-NRB-12; exh. GMP-NRB-9A.

16. The net present value of Green Mountain's share of projected Vermont Yankee operating costs from July 2002 through March 2012 are estimated at \$250 million. The net present value of Green Mountain's commitment under the Power Purchase Agreement over the same time period is \$190 million. Exh. GMP-NRB-12; exh. GMP-NRB-9A.

17. The net present value of Central Vermont's and Green Mountain's purchases under the Power Purchase Agreement would be lower if the Low Market Adjuster is triggered. Exh. GMP-NRB-12.

18. When compared with the status quo, under the Power Purchase Agreement Central Vermont and Green Mountain will save \$106 million and \$60 million, respectively, in power costs between July 2002 and March 2012. These savings would increase if the market price for power is more than 5% below the prices in the Power Purchase Agreement. Findings 46–48, above.

(b) Power Purchase Agreement Prices Compared with Forecasts of Wholesale Prices

19. The Power Purchase Agreement sets fixed power purchase prices for specific amounts of Vermont Yankee power through November 1, 2005, and contains a mechanism that ties contract prices to the wholesale market for the remaining duration of the contract. Kansler pf. at 22; exh VY-42, exh. E.

20. The Power Purchase Agreement is a unit contingent contract. Central Vermont and Green Mountain will receive power from ENVY under the power purchase contract only when Vermont Yankee is operating. Kansler pf. at 22.

21. The Board heard evidence on nine forecasts of power costs during the remaining ten years of Vermont Yankee's operating license and proposed Certificate: (1) the Department's April 2000 forecast (referred to here as DPS 2002); (2) the Department's December 2000 forecast (DPS 2000a); (3) the LaCapra 2001 forecast prepared for Green Mountain (GMP 2/01); (4) the Green Mountain 2001 forecast (GMP 7/01); (5) the Central Vermont 2001 forecast (CVPS 2001); (6) the Department's 2001 forecast (DPS 2001); (7) the LaCapra 2002 forecast prepared

for GMP (GMP 1/02); (8) the Central Vermont 2002 forecast (CVPS 2002); and (9) CLF's price projections (CLF).⁶⁴ The power cost projections contained in these forecasts, and the prices in the Power Purchase Agreement (assuming that low market prices do not trigger the Low Market Adjuster) are as follows:

SUMMARY OF VARIOUS PRICE FORECASTS												
Nominal Market Price (in Dollars per MWh, including energy and ICAP)												
	Date	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
DPS2000	Apr-00	\$39.74	\$42.03	\$43.11	\$44.54	\$46.01	\$47.52	\$49.09	\$50.72	\$52.52	\$54.40	\$56.35
DPS2000a	Dec-00	\$46.94	\$43.04	\$44.14	\$45.68	\$47.27	\$48.74	\$50.44	\$52.19	\$54.09	\$56.05	\$58.09
GMP 2/01	Feb-01	\$37.72	\$35.19	\$34.02	\$33.66	\$33.82	\$35.65	\$35.65	\$37.05	\$39.00	\$40.09	\$41.22
GMP 7/01	Jul-01	\$42.05	\$39.18	\$37.86	\$37.45	\$37.14	\$37.63	\$39.70	\$41.29	\$43.50	\$44.74	\$46.01
CVPS 01	Jul-01	\$45.85	\$43.04	\$38.02	\$39.07	\$40.16	\$41.29	\$42.46	\$43.67	\$45.03	\$46.46	\$47.93
DPS2001	Jan-02	\$38.84	\$36.34	\$34.36	\$37.66	\$40.95	\$44.25	\$47.55	\$50.85	\$52.74	\$54.62	\$56.56
CLF	Jan-02	\$35.18	\$32.65	\$31.48	\$31.12	\$30.85	\$31.28	\$33.11	\$34.51	\$36.46	\$38.54	\$40.74
GMP 1/02	Jan-02	\$30.68	\$26.36	\$25.87	\$26.52	\$27.54	\$28.92	\$30.30	\$31.68	\$33.80	\$35.41	\$37.44
CVPS 02	Feb-02	\$30.87	\$31.44	\$32.18	\$32.48	\$32.67	\$35.26	\$40.34	\$41.55	\$42.86	\$44.21	\$45.60
PPA w/o LMA		\$51.42	\$42.00	\$42.80	\$39.50	\$39.00	\$40.00	\$41.00	\$42.00	\$43.00	\$44.00	\$45.00

Exh. GMP-NRB -12.

22. The range bounded by the Central Vermont 2002 forecast and the DPS 2001 forecast reasonably represent likely future market prices. They are both based upon recent Natsource market price information. Tr. 2/8/02 at 85 and 119 (Weiss); exh. DPS-DFL-1 at 6; tr. 4/7/02 at 261–62 (Biewald).

23. Washington Electric Cooperative, Inc. and the City of Burlington Electric Department arranged for alternative replacement power for the years 2002–2007 at prices in the range of \$32.50 to \$36/MWh. Lamont surr. pf. at 8–9.

24. Based upon the DPS 2001, Central Vermont and GMP 2002 forecasts, the annual *above market* payments by VYNPC for years 2002–2005 range from \$82 million to \$205 million. Weiss pf. 3/29/02 at 14; exh. CLF-JW-R2.

25. The amount of power covered under the Power Purchase Agreement is consistent with Vermont Yankee's nominal output, and does not result in substantial lost opportunity value. Exh. VY-1, exh. E, Schedule B; exh. CLF-2 at 37.

⁶⁴ . CLF generated its forecast by adjusting the assumptions used in the GMP 2001 forecast and the DPS 2000 forecast. Weiss pf. at 42–44.

26. From July 1, 2002, through November 1, 2005, Central Vermont is committed to buying 4,697,516 megawatt hours of Vermont Yankee output at a net present value cost of \$151 million. Exh. GMP-NRB-12.

27. From July 1, 2002, through November 1, 2005, Green Mountain is committed to buying 2,684,295 megawatt hours of Vermont Yankee output at a net present value cost of \$86 million. *Id.*

28. Purchasing the same amount of power under the full range of market price forecasts would cost Central Vermont between \$94 million and \$156 million. Using the range of wholesale market prices bounded by the DPS 2001 and CVPS 2002 forecasts, the costs to Central Vermont are between \$112 million and \$128 million.⁶⁵ *Id.*

29. Purchasing the same amount of power under the market price forecasts would cost Green Mountain between \$54 million and \$89 million. Using the range of wholesale market prices bounded by the DPS 2001 and CVPS 2002 forecasts, the costs to Green Mountain are between \$64 million and \$73 million. *Id.*

30. Using the range of wholesale market prices bounded by the DPS 2001 and CVPS 2002 forecasts, Central Vermont's above-market payments under the Power Purchase Agreement are between \$23 million and \$39 million. Using the same assumptions, Green Mountain's above-market payments under the Power Purchase Agreement are between \$13 million and \$22 million. Findings 52–60, above.

31. Over the entire life of the Power Purchase Agreement, projected payments under the contract could be below market prices by as much as \$27 million if the prices in the DPS 2000 forecast occur. Exh. GMP-NRB-12.

32. The 10% default value for ICAP will probably be too high. If another measure is more appropriate, the MOU allows the parties to replace ICAP with that measure. Biewald pf. at 19; tr. 4/18/02 at 45–56 (Weiss); exh. VY-42 at ¶ 14.

33. In the event that ENVY increases the output from Vermont Yankee, or the facility is relicensed, ENVY will give the Vermont Yankee sponsors a thirty-day exclusive period to negotiate the purchase of the additional power. Keuter supp. pf. 3/15/02 at 21; exh. VY-42.

⁶⁵ . See table on p. , below.

(c) Rate Base Effects and Other Transfers

34. By using its cash proceeds from the proposed sale to reduce its rate base, Central Vermont will reduce the revenue requirement to recover its pre-tax cost of capital by \$1.8 million in the first full year after implementation. Exh. Central Vermont Boyle-5 Revised.

35. By reducing its rate base \$8.6 million, , Green Mountain will lower its overall cost of capital. Green Mountain plans to reduce high-cost equity. Brock reb. pf. at 24–25.

(2) Discussion

The economic analyses demonstrate that the sale of Vermont Yankee to ENVY will have strong economic benefits. Indeed, if Vermont Yankee's operating costs and performance over the next ten years are similar to the recent past, those benefits are substantial, ranging from \$263 million to \$383 million as compared to continued ownership and operation.⁶⁶ These savings amount to approximately 20 percent of the costs that VYNPC's Sponsors (and as a result, ratepayers) would otherwise pay for power from Vermont Yankee and they provide a real and tangible benefit. Moreover, if wholesale market prices for power are low, the Low Market Adjuster mechanism will cause prices for power from ENVY to fall and further increase the benefits of the proposed transactions.

The proposed transaction has two main components that produce this result. First, ENVY will purchase Vermont Yankee, providing an initial \$180 million payment to VYNPC. As we explain below, this initial payment has immediate benefits to VYNPC and its owners. It also permits Central Vermont and Green Mountain to recoup the bulk of their investment in Vermont Yankee, decreasing their respective rate bases and substantially limiting potential stranded cost liabilities. Second, accompanying the sale, VYNPC will enter into a Power Purchase Agreement, whose prices are below projected costs to continue to operate Vermont Yankee under status quo conditions. Included in the Power Purchase Agreement is a Low Market Adjuster, which could produce lower prices for VYNPC's Sponsors if wholesale market prices are low.

In the following discussion we examine the financial ramifications of each of the major aspects of the proposed sale and purchase power transactions.

(a) Upfront Cash Payment

One of the key components of the transaction is the *immediate* and *real* transfer from ENVY to Vermont Yankee of approximately \$180 million. This initial payment has several direct benefits. It allows VYNPC to completely repay its debt obligations, removing from Green Mountain and Central Vermont ultimate responsibility for a proportion of these obligations. The cash payment also permits Green Mountain and Central Vermont to recover a significant portion of their investment in Vermont Yankee. By recouping their Vermont Yankee investment from ENVY instead of ratepayers, Vermont Yankee's Sponsors substantially, albeit not totally, alleviate potential stranded cost recovery concerns.⁶⁷

The upfront cash payment is tangible and definite. It will provide benefits to Central Vermont and Green Mountain irrespective of the benefits of other aspects of the transaction or whether Vermont Yankee operates at all. Specifically, VYNPC receives the initial payment, which allows for the payback of \$99 million in Vermont Yankee obligations, for which Central Vermont and Green Mountain Power would have a proportional responsibility. The cash payment also provides for Central Vermont and Green Mountain to receive \$13.1 million and \$8.6 million from the sale, respectively, as a return of their investment. These payments are real dollar flow benefits, and are not dependent on estimates of future market prices. It is possible that over the remaining ten years of operation other provisions of the proposed transaction *could* have greater returns. For example, the Power Purchase Agreement is expected to save ratepayers millions of dollars. Nonetheless, the most striking economic benefit occurs at closing when the \$180 million purchase price is received.

(b) Status Quo Operating Costs versus Power Purchase Agreement Prices

66 . Exh. DPS-WKS-9; exh. CVPS-Page-Rebuttal-1. VYNPC's estimated savings are consistent with these figures. Exhs. VY-Wiggett-6 Revised and VY-Wiggett-10 Revised.

67 . Substantial stranded costs were an issue in the AmerGen sale proposal.

The second major benefit of the proposed transaction is the long-term purchase power contract which replaces the current wholesale power rate based upon Vermont Yankee's operating costs. The evidence shows that in all years except 2002 and 2003, the prices embedded in the Power Purchase Agreement are below the wholesale rates that the Sponsors would pay based upon current expectations.

Projections provided by Vermont Yankee show an aggregate cost to continue to own and operate the facility of \$1.329 billion which, barring a sale, would ultimately be borne by ratepayers in proportion to their respective ownership interests. Vermont Yankee projects that its costs to produce a megawatt hour of power range from a low of \$42.20 in 2003 to \$66.80 in 2011.⁶⁸ Central Vermont's share of Vermont Yankee's operating costs, as projected, represent a present value obligation of \$438 million.⁶⁹ Similarly, Green Mountain's obligation is \$250 million.⁷⁰

During this same period, stated Power Purchase Agreement prices range from a low of \$39 in 2006 to a high of \$44 in 2011.⁷¹ Under the Power Purchase Agreement, the same power will cost Central Vermont \$332 million, present value, and Green Mountain \$190 million.⁷² The substantial difference in prices means that, over the next ten years, Central Vermont will save an estimated \$107 million on its power costs (compared to what it would have spent as an owner of Vermont Yankee), while Green Mountain's savings are estimated at \$60 million.⁷³

The gap between Vermont Yankee's projected operating costs and prices for power under the Power Purchase Agreement will widen if New England wholesale market prices are more than 5 percent below the prices set out in the Power Purchase Agreement. This event would trigger the Low Market Adjuster, and would provide an additional benefit to the Vermont utilities, and by extension their ratepayers.

68 . See Finding 45, above. For this comparison, we have excluded prices for the partial years of 2002 and 2012.

69 . See Finding 46, above.

70 . See Finding 47, above.

71 . See Finding 45, above. For this comparison, we have excluded prices for the partial years of 2002 and 2012.

72 . See Findings 46 and 47, above.

73 . See Finding 49, above.

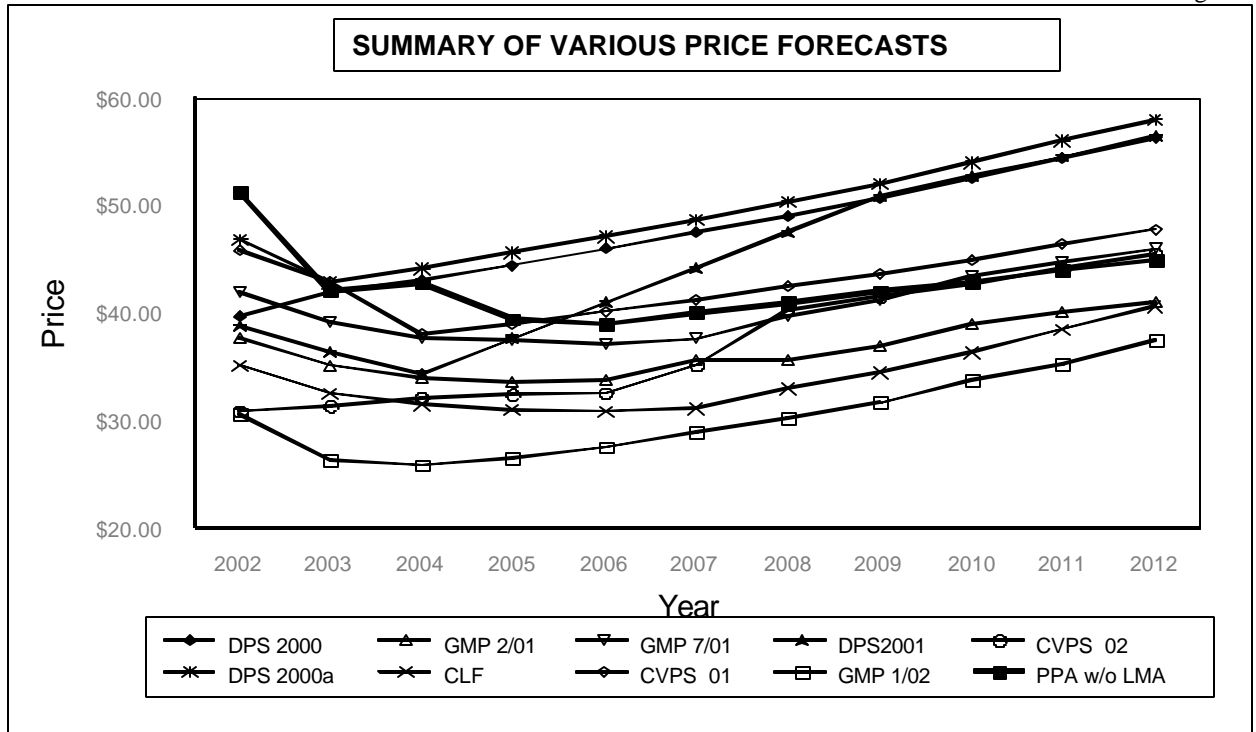
Overall, we conclude that the Power Purchase Agreement sets power purchase levels which are below the projected costs of continuing to own and operate Vermont Yankee through the end of its license.

(c) Power Purchase Agreement Prices compared with Forecasts of Wholesale Prices

The Power Purchase Agreement, while providing real savings by comparison to the continued operation of Vermont Yankee, appears to be priced substantially above the expected wholesale market prices, primarily during the period between closing and the onset of the Low Market Adjuster. This fact causes us to question (1) whether the Power Purchase Agreement prices are unreasonable because they exceed market prices and (2) whether the risk that the above-market prices pose is acceptable.

During the course of this docket the parties presented a variety of projections concerning future energy prices. These projections, which range from the Department's 2000a forecast to GMP's 2002 LaCapra study, are shown below.⁷⁴

⁷⁴ . Forecast market prices for power in New England are subject to a number of uncertainties such as fluctuation in oil and natural gas prices, the timing of new generating capacity, and developments in the regional wholesale marketplace. Any of these could cause actual market prices to diverge significantly from a particular forecast. Exh. GMP-1 at 1.

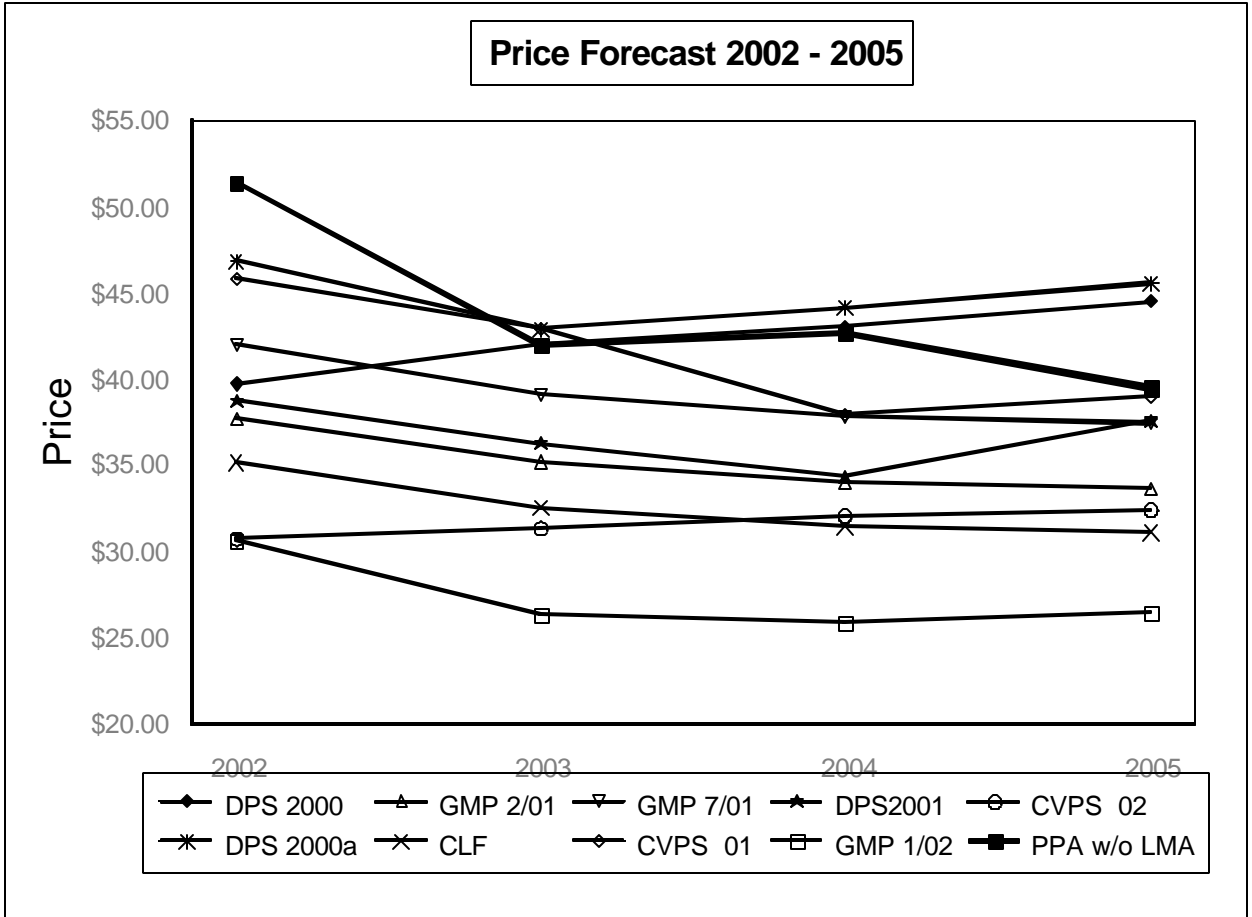


After examining these forecasts, we conclude that the range bounded by the CVPS 2002 projection and the DPS 2001 model reasonably represent expected future New England wholesale prices of power.⁷⁵ The older forecasts, such as the DPS 2000 and DPS 2000a, no longer appear to reflect market prices. Similarly, we discount the GMP 1/02 forecast, which appears unrealistically low.⁷⁶ In aggregate, the graph shows that the Power Purchase Agreement base prices are above the DPS 2001 market forecasts through 2005, and then below that forecast's projections of market after that date. The graph also shows that the Power Purchase Agreement base prices are above the CVPS 2002 market forecast through 2009, and below that forecast's projections of market prices after that date.

75 . Tr. 2/8/02 at 85 and 119 (Weiss). Both forecasts incorporate recent information concerning capacity and demand factors, as well as market fundamentals, and we believe they will be most likely to accurately reflect the future. Both the DPS 2001 forecast and the Central Vermont 2002 forecast build upon actual short-term forward market energy prices to develop their near-term price levels, and, longer term, assume a return to market equilibrium.

76 . The GMP 1/02 forecast projects 2003 and 2004 prices which are *below* current forward power prices in New England. The forecast also appears to project that new generating plants will operate at a deficit for more than a decade. Biewald supp. pf. at 6; Lamont sur. pf. at 1-2.

In evaluating the degree to which the Power Purchase Agreement exceeds market prices, it is appropriate to focus on the period from 2002–2005. Beyond the first three years of the contract, the Low Market Adjuster ensures that ratepayers will not pay more than 5 percent above the New England wholesale market prices. During this period, the range of market price forecasts as compared to the Power Purchase Agreement are as follows.



Purchase Agreement prices will be above the wholesale market prices in at least part of the period before the Low Market Adjuster takes effect. These price differences translate directly to higher costs for ratepayers. Under almost all of the price forecasts presented for the 2002–2005 period, Central Vermont and Green Mountain will pay above wholesale market prices in the early years of the Purchase Power Agreement. Using the forecasts that we consider most representative of the future (as discussed above), the likely range of these excess costs is between \$23 – \$39 million for Central Vermont and \$13 – \$22 million for Green Mountain.

The following table shows the degree to which Green Mountain and Central Vermont could incur above-market energy costs for power purchases under the Power Purchase Agreement in the pre-Low Market Adjuster period (negative numbers represent above-market price payments).⁷⁷

Net Present Value PPA Power Costs Versus Forecasts for the period 7/02-11/05				
(\$MM)	VY Power Costs	PPA	VY Power Costs	PPA
<u>Forecast</u>	<u>GMP</u>	<u>Savings/Excess</u>	<u>CVPS</u>	<u>Savings/Excess</u>
DPS 2000	85.4	-0.8	149.4	-1.4
DPS 2000a	89.2	3	156.1	5.3
GMP 2/01	69.9	-16.3	122.3	-28.5
GMP 7/01	77.8	-8.4	136.1	-14.7
CVPS 2001	82.5	-3.7	144.4	-6.5
DPS 2001	73.1	-13.1	127.9	-22.9
GMP 2/02	53.8	-32.4	94.1	-56.7
CVPS 2002	63.8	-22.4	111.6	-39.2
PPA	86.2		150.8	

These power cost forecasts also demonstrate a degree of market price risk inherent in the Power Purchase Agreement. Commencing no later than November 1, 2005, the low market adjuster will allow Power Purchase Agreement prices to move with wholesale prices, substantially eliminating wholesale market price risk at that time. But until that time, that risk — of how much ratepayers may have to pay above the wholesale market prices — is real. For example, if the lowest wholesale price forecast (GMP 1/02) turned out to be correct, Central

77 . Exh. GMP-NRB-12.

Vermont's ratepayers would incur \$57 million net present value of above market payments and Green Mountain customers would pay rates \$32 million in excess of the market.⁷⁸

Ultimately, the reasonableness of the above-market costs likely to occur in the early years of the Power Purchase Agreement must be analyzed in the context of the transaction as a whole. The initial \$180 million payment and the pricing structure of the Power Purchase Agreement are linked. Also since Green Mountain, Central Vermont, and their ratepayers are locked into paying what appears to be above-market prices for the next three years, they receive the benefits that flow from the initial payment.⁷⁹ More importantly, from the perspective of VYNPC and the Sponsors, the real questions are whether ratepayers are better off following the sale and whether the auction price represents the fair market value of Vermont Yankee. On the latter question, we conclude that, based upon the specific elements in the offering Memorandum, the auction appears to have produced fair market value.⁸⁰ As to the former, as we have described above, the initial \$180 million payment, coupled with the fact that the prices in the Power Purchase Agreement will provide real savings over the present operating costs, will represent a significant improvement for ratepayers over the remaining ten years of Vermont Yankee's Certificate.

In evaluating the Power Purchase Agreement, an additional question revolves around the reasonableness of the Low Market Adjuster mechanism. That mechanism takes effect if the market price for power is more than 5 percent below the Power Purchase Agreement prices. Market price is defined to mean the New England monthly wholesale spot market price plus the value for ICAP. In the absence of an established ICAP, the Power Purchase Agreement specifies that a 10 percent adder will be used.

A separate market analysis on the appropriateness of the 10 percent adder for ancillary services, as opposed to the 3 percent adder originally proposed by the Vermont Yankee sellers in the offering memorandum,⁸¹ or any other number, was never conducted. The evidence strongly suggests that given New England's energy situation, future ICAP charges in New England are likely to be below 10%. Certain of Green Mountain's projections valued ICAP and ancillary

78 . *Id.*

79 . It is not clear from the record that ratepayers would have received greater benefits from a smaller initial cash payment and a Power Purchase Agreement set at wholesale market prices.

80 . *See* p. , below.

services at 8.8% of the energy clearing price.⁸² However, the pertinent question to our analysis is not whether the ICAP figure will be below 10%, but *whether there will be* an ICAP figure. If there is a market ICAP figure, the Power Purchase Agreement calls for use of the market ICAP figure, not the 10 percent adder. We have considered potential market changes in New England, which include a possible combination of ISO-NE with one or more market areas, and potential FERC rules mandating an installed capacity payment. We are convinced that some form of capacity payment for reserves will be in place in New England.

Opponents of the sale have argued that, even when the Low Market Adjuster is in place, the Power Purchase Agreement exposes Vermont utilities to power costs significantly above those in the actually-occurring New England wholesale markets.

This claim may arise from a mistaken view that the "energy clearing price" in wholesale electric markets is equivalent to the market value of the product the Vermont utilities would have to buy in the absence of the ENVY purchase agreement. However, whatever the cause of the confusion, a rigorous examination of the Low Market Adjuster's terms, when compared to the alternative, shows that it is likely to match or better the value of market equivalents:

Low Market Adjustment Price = the sum of:

- (1) Energy Clearing Price, plus
- (2) 5% payment for a fixed price cap, plus
- (3) the lesser of ICAP or 10%.

and

Market Price of Equivalent Product = the sum of:

- (1) Energy Clearing Price, plus
- (2) unknown payment for a fixed price cap, plus
- (3) ICAP, or its functional equivalent, plus
- (4) other unavoidable "ancillary" uplift services, plus
- (5) transaction and administrative costs.

To find the difference (delta) between the Low Market Adjuster price and the market price of an equivalent product, one compares the terms of the two products. Doing so shows that

the energy clearing price element will be the same for both products and, thus is irrelevant to which is better. Unless of course, the Energy Clearing Price is high enough to trigger the fixed price cap. If so, the clause shields Vermont utilities from that high market price, thus producing a real value.

Next we examined the 5% payment for a fixed price cap. We cannot tell what price markets will demand for such a cap in the future, but we have no doubt that 5% is a reasonable estimate of its value, given historic volatility in wholesale power markets. Thus, this element balances out the Low Market Adjuster in comparison to future market prices.

The third element is payments for ICAP or equivalent mechanisms to compensate power producers for unused but necessary reserve margins. In the Power Purchase Agreement, the Low Market Adjuster will equal market costs if ICAP prices are 10% or less. At paragraph fourteen of the Memorandum of Understanding, the signatories to that document indicated their intent to amend the definition of the term "market price," as defined in Article 2 (t) of the Power Purchase Agreement, by adding the following language:

In the event there is no clearing price for Installed Capability, the Market Price shall be the product of (x) the amount set forth in clause (a) of the preceding sentence and (y) 110 % (or such other percentage mutually acceptable to [VYNPC] and the Seller to accurately reflect the price of Installed Capability).

This amendment leaves open the possibility that the functional equivalent of ICAP might be adopted under some other name and provide that it will be treated like ICAP if both parties mutually agree. We regard this as a good faith commitment by ENVY to accept reasonable changes to this effort and will require ENVY to so certify as a condition of this Order.⁸³

The fourth cost-element is the potential for ancillary costs (other than ICAP) to be unavoidably charged as part of the cost of power purchased in wholesale markets. These costs

82 . Tr. 2/6/02 at 285 (Brock); Exh. CLF-9.

83 . The key point here is that the "adder" to the energy clearing price is intended to reflect the capacity payments for necessary reserve margin that are unavoidable costs of wholesale markets. Thus, it is that substance, not the ICAP name, that matters:

"What's in a name? That which we call a rose
By any other name would smell as sweet"

have the potential to be significant, and the Low Market Adjuster's provisions will not be adjusted to reflect these market elements, and thus shield Vermont utilities from that financial risk. This is a very significant favorable element of the Power Purchase Agreement before us.

Finally, the Low Market Adjuster's prices are not set to reflect the administrative and transactional costs that Vermont utilities would have to bear if they were to rely further on market purchases rather than the Power Purchase Agreement before us. Again, this element makes the Low Market Adjuster compare favorably with the costs of future wholesale markets. In sum, these factors cumulatively demonstrate that (because of the Low Market Adjuster clause and the fixed price cap) the Power Purchase Agreement places the Vermont utilities in a balanced or favorable position when compared to market costs of power for the 2006–2012 period.

2. Proportion of Utility Power Supply in Long-term Fixed-Price Contracts

An additional non-financial consideration is the effect of the sale and entry into a Power Purchase Agreement on the power supply mix of the Vermont Sponsors, Green Mountain and Central Vermont. At the present time, these companies have more than 75 percent of their power supplied through long-term fixed price contracts. Specifically, Green Mountain and Central Vermont acquire approximately one-third of their power from Vermont Yankee under the Power Contract and Additional Power Contract, another third from Hydro-Québec through the Hydro-Québec Joint Owners Contract, and another significant portion from small power producers under PURPA and Board Rule 4.100. In Docket 6300, the proposed sale of Vermont Yankee to AmerGen, we expressed concern that completion of the sale would result in too much of Green Mountain's and Central Vermont's power being supplied by long-term, fixed-price contracts and forego the opportunity to reduce this reliance. We observed that:

This high commitment hampers the ability of Vermont's utilities to participate actively in the emerging power market and continues to lock-in a high percentage of the state's energy load to above-market price contracts.⁸⁴

Romeo and Juliet, II. ii. 42–43

84 . Docket 6300, Order of 11/17/00, Appendix A.

Several parties have suggested that proposed transactions suffer from the same defect. These parties argue that, if we approve the proposed sale, Green Mountain and Central Vermont will lose the opportunity to move away from long-term fixed price contracts and will again commit to an above-market contract.

We find that the Power Purchase Agreement, as a part of the Sale Agreement, contains provisions that are very different from those present in the AmerGen proposal, and that address our fundamental concerns. The ENVY proposal is similar to AmerGen in that both contain a long-term power contract. But unlike the November 2000 AmerGen proposal, the majority of the power purchases from ENVY are not at a fixed price.⁸⁵ Instead, beginning no later than November 2005, the price of power will be at the lower of market price (with a small premium) or a fixed-price cap. Thus, the ENVY proposal does give Vermont ratepayers the chance to benefit from low future market-based prices, while at the same time protecting them from the effects of high market prices. This is a major benefit that captures the advantages of the market and simultaneously (at very reasonable cost) avoids the negative risks of market exposure.

We recognize that during the first three years, the Power Purchase Agreement viewed alone does have fixed prices that are expected to be well above-market. But these high fixed prices are offset by the substantial \$180 million cash payment that VYNPC will receive at its outset. From the standpoint of VYNPC and its Sponsors, they are essentially receiving a large cash payment, part of which they will subsequently return to ENVY in the form of above-market Power Purchase Agreement prices.⁸⁶ In this context, the combination of purchase price, plus power prices in the first three years is not truly above-market. Thus, we conclude that the Power Purchase Agreement reasonably puts Vermont on a path to address the market-risk of excess reliance on fixed-price power agreements.

3. Effect of Power Purchase Agreement on New England Energy Market

85 . Sherman supp. pf. at 32.

86 . This would have the same effect as a Power Purchase Agreement priced at market values, coupled with a smaller initial payment. The evidence suggested that this structure would lead to an initial payment of approximately \$65 million, but the same overall net present value for VYNPC. Wiggett reb. pf. at 26.

CLF argues that the Power Purchase Agreement does not promote the general good because it has an adverse effect on the New England wholesale energy market. CLF relies on the fact that the Power Purchase Agreement commits VYNPC and its Sponsors to a unit-contingent power purchase that is not market-based. This, according to CLF, creates incentives for ENVY to operate Vermont Yankee even when it would be more cost-effective from a market perspective to shut down.

We find CLF's arguments unpersuasive. As we explained in the previous section, for most of the term of the Power Purchase Agreement, the Low Market Adjuster will be in effect. This will ensure exposure to the market — except to the extent the wholesale market prices exceed the fixed Power Purchase Agreement prices (to the benefit of ratepayers). Thus, after 2005, ENVY will have the same market-based incentives to operate or shut down Vermont Yankee as they would have if the parties had agreed to a system-power contract.⁸⁷

In the period before the onset of the Low Market Adjuster, ENVY (as owner of Vermont Yankee) may face non-market-based incentives to operate because of the Power Purchase Agreement. This does not, however, lead us to conclude that that Agreement will disrupt the New England wholesale market. The current situation already provides fixed-price revenue for Vermont Yankee, thus rejecting the contract before us would perpetuate, rather than avoid, the problem that CLF complains of. In addition, Vermont Yankee is a small part of the overall New England market, representing only about 2 percent of the peak capacity.⁸⁸ The small size, the fact that it begins a transition to market incentives, and the fact that any non-market-based incentives are short-lived, cause us to conclude that the effect of the proposal on New England's wholesale markets will be beneficial, if any exists at all.

⁸⁷ Tr. 2/8/02 at 92–93 (Weiss). CLF argues that the premium over market included in the Low Market Adjuster still distorts the market. As we find that premium small (5 percent) and reasonably priced in exchange for a price cap, we do not accept CLF's argument.

⁸⁸ Tr. 2/8/02 at 27 (Weiss).