STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket Nos. 5841/5859

Investigation into Citizens Utilities Company	)
re: alleged investment in facilities without	)
proper regulatory approval, and omission of	)
least-cost analysis of such investments	)

AND

Investigation into the existing rates of	)
Citizens Utilities Company	)

ORDER ENTERED: 6/16/97

Hearings held at
Montpelier, Vermont

September 21, 1995
March 11 & 14, 1996
June 13, 1996
September 27, 1996
October 14, 15, 16, 17, 18, 28, 29, 30 & 31, 1996
November 1, 4, 5, 6, 7, 12, 13, 14, 25 & 26, 1996
December 2, 3, 4, 6, 18, 19 & 20, 1996
January 6, 7, 8 & 30, 1997
February 3, 4, 5 & 6, 1997
March 17 & 18, 1997

PRESENT: Richard H. Cowart, Chairman
Suzanne D. Rude, Board Member
David C. Coen, Board Member
Kurt R. Janson, Hearing Officer

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INTRODUCTION

Today's Order resolves two distinct but interrelated dockets. The first, Docket No. 5841, is an investigation into the management of Citizens Utilities Company ("Citizens" or "Company"), an electric utility serving approximately 20,000 customers in northern Vermont. In this Docket, we address substantial allegations of misconduct, mismanagement and violation of state law and Board Orders by Citizens. The second, Docket No. 5859, is an investigation into Citizens' overall rate levels.

In these cases, the Department of Public Service ("DPS" or "Department") alleges that Citizens has violated Vermont law, federal rules for utility accounting, principles of least-cost planning, traditional rules for cost allocations, and prudent management practices. The DPS argues that, as a consequence of these violations, it is impossible to conclude that Citizens' current rates meet the long-established "just and reasonable" standard. The Department recommends that significant reductions to those rates be implemented as refunds paid to Citizens' ratepayers.

The presentation of evidence in this case by the Department and other parties has been extremely thorough and informative, despite the difficulties of assembling some of the necessary information from Citizens' far-flung and incomplete corporate records. We have examined this evidence through the testimony of numerous expert witnesses in 41 days of hearings. We also held public hearings in Newport and Grand Isle on October 15 and October 28, 1996, respectively.

Upon our review of this detailed record, in today's Order we reach the following conclusions:

First, Citizens' management of its Vermont operations is seriously flawed, and must be thoroughly reformed. Based on Citizens' long and persistent record of misconduct and mismanagement, we conclude that the Company's operation of the Vermont Electric Division ("VED") has been imprudent, and has failed to promote the general good of the State of Vermont. The Company has been seriously derelict in its regulatory obligations to obtain necessary permits for transmission lines, substations and other Vermont facilities; to ensure that it is providing service to its Vermont customers through the least-cost options; to provide all cost-effective energy efficiency opportunities to its ratepayers; and to keep accurate, reliable, and complete books and records so as to ensure that only appropriate costs are passed on to the Company's Vermont ratepayers. The Company's overall corporate management structure lacks clear lines of authority and responsibility for critical Vermont operations. Finally, we find that the Company was imprudent in the design and construction of Dam No. 11 on the Clyde River, and was imprudent in its maintenance of the facility, and in pushing ahead with its reconstruction in August 1994.

Second, we find that Citizens' rates are excessive, and we order an immediate rate reduction of 16.35%, with credits to ratepayers retroactive to the commencement of this investigation, November 1, 1995. This rate reduction reflects among other findings, our conclusions that costs associated with imprudent actions at Dam No. 11 must be excluded from rates; that costs associated with demand-side management programs must be excluded from rates until proper tracking and accounting practices are instituted; that transmission plant accounts must be adjusted downwards as a consequence of inadequate and improper accounting for those accounts; and that the Company's return on equity should be reduced by five and

one-quarter percentage points as a consequence of improper accounting, permitting and management practices.

The evidence in these Dockets is compelling that Citizens' management problems are broad and substantial, and have continued over a period of many years. In the area of accounting, the Company has used several of its bookkeeping accounts for purposes for which they were not intended; certain costs were capitalized when they should have been expensed; unpaid bills were accrued when they should have been credited to a liability account; blanket orders normally intended for minor, short-duration jobs were also used for major projects over long periods; and the Company has failed to conform its accounting systems with the Federal Energy Regulatory Commission ("FERC") Uniform System of Accounts. Clear, reliable bookkeeping is essential both to the efficient operation of the business and to regulatory oversight and ratemaking; the Company's accounting deficiencies must be corrected.

Under 30 V.S.A. § 248, Vermont electric companies are required to obtain Board approval before investing in or constructing certain kinds of facilities. Section 248 requires that we conduct a comprehensive review of the economic and environmental effects of such investments. In this Order, we find that the Company failed to request or obtain necessary approvals under § 248 for the construction of several transmission and substation facilities, but went ahead with and completed the projects anyway. Furthermore, even after knowledge of these failings was public, official, and reported to upper management, the Company failed to design and implement internal procedures that would promote compliance with Vermont's regulatory requirements.

Our response to the Company's statutory violations and its pattern of mismanagement, is not limited to the reduction in rates noted above. Today's Order also imposes fines totalling $60,000 for independent, identified violations of explicit statutory provisions. And, finally it establishes a multi-year period of strict "regulatory probation," during which the Company will be required to reform its accounting procedures, managerial structure, and processes for regulatory compliance.

The establishment of strict regulatory probation is not a step that we undertake lightly. In view of the gravity of the Company's offenses, the Department has asked us to go much further -- to revoke the Company's Certificate of Public Good ("CPG") altogether. Revocation of its CPG would require Citizens to divest itself of all its Vermont assets and cease operations in this state. Let there be no misunderstanding: the evidence in these Dockets would support such a decision. Over many years, Citizens has demonstrated a persistent pattern of misconduct, violations of law, failure to comply with regulatory directives, and disdain for traditional principles of utility accounting and management. The record chronicles a pattern of mismanagement, imprudence and disregard for Vermont law and regulation, extending over a period of decades.

Having reached this conclusion, however, we are mindful that our ultimate goal must be to best promote the provision of reliable, least-cost, reasonably priced energy services to Citizens' Vermont ratepayers. Upon detailed consideration of the record and the parties' recommendations, we do not believe that immediate revocation of the Company's franchise is necessary for, or even the most expedient avenue toward, achieving this ultimate goal. We are mindful that CPG revocation might well be accompanied by transactions costs and unintended consequences that are inimical to the end results sought by petitioners and the

general public. Our ultimate objective is to assure the provision of reliable, least-cost, reasonably priced energy services for ratepayers in Citizens' service territory. Revoking the Company's CPG does not necessarily serve that goal -- at least not at this point.

During the hearings, Mr. Michael Love, one of Citizens' chief officers, testified that the Company took very seriously the charges against it and that it would be taking dramatic steps to correct its management and operational deficiencies. Rather than revoking Citizens' CPG, he endorsed the alternative -- stringent terms of probation and intensive regulatory oversight -- and he committed his Company to a regime of honest dealing, proper accounting, and prudent management.[*]

In light of Citizens' commitment to management changes and our conclusion that meaningful reforms are possible, we have decided not to revoke Citizens' CPG at this time; we will, instead, impose penalties and order extensive corrective actions. In this way, Citizens, rather than a new holder of its CPG, continues to bear responsibility for its actions. We must stress, however, that the possibility of CPG revocation remains real -- and that we will not hesitate to impose that remedy if circumstances so necessitate. We hereby put the Company on notice that we will judge Citizens not by its words, but by its actions. Unfortunately, many of its actions speak loudly of a Company fundamentally unable or unwilling on its own to institute the reforms necessary if it is to continue to conduct a business affected with the public interest. Any significant failure of the Company to comply with the

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[*] This may be no easy task. A few days later, another senior Company official broke the Company's promise to provide to the Department financial documents that the DPS had requested for the hearing, without even informing the Department that the information would not be forthcoming. This action was taken with the knowledge of other members of senior management, including the Company's General Counsel. The witness' justification for this intentional lapse was entirely unconvincing, and detracts greatly from the spirit of future cooperation that Mr. Love promised.

conditions of regulatory probation imposed today will be considered reason enough to revoke Citizens' Certificate of Public Good to operate a public service company in the State of Vermont.

Structure of this Decision

This document is divided into three main sections: the Introduction; Part One, the decision on the rate case; and Part Two, the decision regarding the investigation into allegations of Citizens' failures to obtain necessary regulatory approvals for certain investments and to perform least-cost analyses for those investments. This investigation included a review of the Company's permitting and accounting practices, and its compliance with least-cost planning and demand-side management obligations. Detailed Tables of Contents can be found at the beginnings of Parts One and Two. A single Order follows Part Two.

PART ONE

DECISION ON RATE INVESTIGATION

PART ONE

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I. INTRODUCTION

By Order entered November 1, 1995, the Public Service Board ("Board") opened Docket No. 5859, an investigation into the rates of the Vermont Electric Division ("VED") of Citizens Utilities Company ("Citizens" or "the Company") (the "rate investigation"). The Board consolidated the rate investigation with Docket No. 5841, an investigation into the Company's alleged investment in facilities without proper regulatory approval and alleged omission of least-cost analysis (commonly referred to as the "prudence docket").

The Board appointed me as Hearing Officer to propose resolutions of issues in the rate investigation, but not in the prudence docket, and thus this Proposal for Decision is limited to the rate issues of Docket No. 5859. In this Proposal for Decision, I recommend a rate reduction, subject to a compliance filing, of $2,603,715 or 9.79 percent retroactive to November 1, 1995, and refunds with interest to customers of all sums collected in excess of the recommended rates. Attachment 1 to this Proposal for Decision sets forth the calculation of the proposed rate reduction.

Some issues in the rate investigation inevitably overlap with issues in Docket No. 5841; when such issues are central to the prudence docket, this Proposal for Decision does not propose a resolution, and instead leaves those issues to be decided directly by the Board. Thus, the rate reduction that I recommend in this Proposal for Decision does not reflect the possible imposition by the Board of a penalty through a reduction in the Company's return on equity, or a possible reduction by the Board in the recovery of the costs of this proceeding. I recommend that the Board consider these possible additional rate reductions in its deliberations in the prudence docket.

All of the proposals herein are subject to modification and final approval by the Board.

II. PROCEDURAL HISTORY

The rates under investigation in Docket No. 5859 were established in Docket No. 5809, which commenced on February 10, 1995, when Citizens filed for an 8.5 percent rate increase. In Docket No. 5809, Citizens' petition was accompanied by a Stipulation with the Department of Public Service ("Department" or "DPS") in which the parties agreed that approval by the Board of the Company's request would result in just and reasonable rates.

On March 24, 1995, pursuant to 30 V.S.A. § 226, the Board issued an Order suspending the rate increase and opened Docket 5809 to investigate Citizens' request for a rate increase.

In mid-August, 1995, the Department became aware of a number of serious allegations against Citizens, brought by a former employee, Robert Arnold. On August 29, 1995, the Department notified the Board that it intended to withdraw its support for the rate increase and revoke the stipulation which it had entered with the Company. On September 1, 1995, the Board opened Docket No. 5841 to investigate Mr. Arnold's allegations.

On October 31, 1995, the Board issued a final order in Docket No. 5809 concluding that it could not complete a full investigation into the justness and reasonableness of the Company's rates within the seven-month time period required by statute, 30 V.S.A. § 227(a). The Board also concluded that the best option open to it, given the seriousness of the allegations in Docket No. 5841, was to allow rates to go into effect on November 1, 1995, and to simultaneously open a new investigation into Citizens' rates on the same day. Docket No. 5809, Order of 10/31/95 at 39.

The investigation in Docket No. 5859 was opened pursuant to 30 V.S.A. § 227(b), which requires the Company to refund all sums collected that are in excess of the rates that the Board finds to be just and reasonable, if the Board issues its determination within seven months of the start of the investigation.[1] Citizens and the other parties have agreed on several occasions to a waiver of the statutory seven-month deadline for rate investigations. The current deadline is June 16, 1997.

The Board initially appointed two Hearing Officers to hear the consolidated proceedings in Docket Nos. 5841 and 5859. On May 31, 1996, Citizens requested that the Board hear the consolidated proceedings directly. The Board granted that request in an Order issued on July 18, 1996.

After the evidentiary hearings began, it became apparent that more hearing days would be required than had been originally anticipated. Given the Board's limited availability for

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1. If the Board does not make its determination within the seven-month deadline, the order is retroactive only to a date seven months after the opening of the investigation. 30 V.S.A. § 227(b).

additional hearing dates, the Board appointed me to serve as Hearing Officer to hear the rate case issues of Docket No. 5859, but not the prudence investigation issues of Docket No. 5841.

Public Hearings were held on October 15 and 28, 1996, in Newport and Grand Isle, respectively. Technical hearings were held before the Board on October 14-18 and 28-31, 1996; November 1, 1996; January 6-8, 1997; February 3-6, 1997; and March 17-18, 1997. Technical hearings were held before the Hearing Officer on November 4-7, 13-14, and 25-26, 1996; and December 2-4, 6, and 18-20, 1996.

III. FINDINGS OF FACT AND DISCUSSION

Based upon the substantial evidence of record and the testimony presented at the hearings, I hereby report the following findings to the Board in accordance with 30 V.S.A. § 8. All findings proposed by the parties that are not incorporated herein are rejected.

A. Rate Base

1. The test year for this proceeding is 1995. Rate base should be computed using the average of utility plant in service as of December 31, 1994, and December 31, 1995. Exh. CUC-KMK-6, sch. B-2; exh. DPS-HWS-1, sch. B-2.

2. In its original April 1996 compliance filing, Citizens presented its 1995 gross (before depreciation) plant in service as $56,933,569. Exh. DPS-HWS-1, sch. B-1.

1. Land Donation

3. Subsequent to the test year, Citizens donated 29.75 acres, known as Big Troy Falls, to the State of Vermont. Citizens purchased the land in 1955 as a potential site for a future hydroelectric project. Schultz/DeRonne pf. 8/23/96 at 11; exh. DPS-HWS-2 at 3-4.

4. The test year beginning and ending plant balances included $25,608 associated with the donated land. Schultz/DeRonne pf. 8/23/96 at 11; exh. DPS-HWS-2 at 3-4.

5. Citizens anticipates receiving a tax credit of $101,922 in 1996 as a result of the land donation. Ratepayers should receive the benefits of the tax credit because they have been supporting the investment in rate base over the years. Schultz/DeRonne pf. 8/23/96 at 12; exh. DPS-HWS-2 at 3-4.

6. The $25,608 should be removed from plant in service as the donated land will not be used to provide service to ratepayers. The tax benefit should be passed on to ratepayers over a two-year period; this is accomplished by a $50,961 offset to tax expense and a $50,961 reduction to rate base for the unamortized tax credit. Schultz/DeRonne pf. 8/23/96 at 11-12, 111; Kiener pf. reb. 9/23/96 at 3, 13; exh. CUC-KMK-2R, schs. B-1, B-4, and C-2 at 11.

Discussion re: Land Donation

The DPS and Citizens have agreed to these proposed adjustments.[2] I conclude that they are appropriate adjustments, and I recommend that the Board adopt them.

2. Deferred Income Taxes Associated With Unbilled Revenues

7. Accumulated deferred income taxes are an offset to rate base. Citizens adjusted its deferred income tax balance for the tax impact associated with unbilled revenues, thereby reducing the accumulated deferred income tax offset by $716,127. Schultz/DeRonne pf. 8/23/96 at 23; exh. CUC-KMK-2R, sch. B-6.

8. Unbilled revenues are taxable as a result of the Tax Reform Act of 1986. Consequently, there is no timing difference between the recording of unbilled revenues on Citizens' books and the reporting of unbilled revenues for tax purposes. Because there is no such timing difference, it was inappropriate to decrease accumulated deferred income taxes by the $716,127. Consequently, rate base should be reduced by $716,127. Citizens reflected this adjustment in its December 11, 1996, rebuttal filing. Schultz/DeRonne pf. 8/23/96 at 23; Schultz/DeRonne pf. reb. 12/11/96 at 10; tr. 12/6/96 at 78-79 (O'Brien); exh. CUC-KMK-6, sch. B-6.

9. The Department recommends a second, similar adjustment for accumulated deferred income taxes for plant allocated to VED from Citizens' Stamford Administrative Office and Harvey Administrative Office. The Department has not presented a calculation of the dollar amount of this adjustment, but instead recommends that the Company be required to perform this calculation. Schultz/DeRonne pf. 8/23/96 at 24-25.

Discussion re: Deferred Income Taxes Associated With Unbilled Revenues

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2. DPS Brief 3/14/97 at 61-62; Citizens' Reply Brief 3/28/97 at 5.

Citizens has agreed to the Department's proposed treatment of accumulated deferred income taxes associated with unbilled revenues.[3] The Department's two proposed adjustments for deferred income taxes associated with unbilled revenues are appropriate, and I recommend that the Board adopt them. Citizens should calculate the dollar amount of this adjustment as it relates to plant allocated to VED from other Company administrative offices and include the calculation in its compliance filing.

3. Unbilled Contributions in Aid of Construction

10. Citizens has agreed to remove from rate base $78,923 for Contributions in Aid of Construction ("CIAC") that it should have billed, but never did, to Rock-Tenn and Boise Cascade. Kiener pf. reb. 12/11/96 at 2; exh. CUC-KMK-1R, sch. B-4; tr. 12/2/96 at 190-194 (Petit); tr. 12/18/96 at 117-118 (Kiener).

Discussion re: Unbilled Contributions in Aid of Construction

This adjustment is appropriate because it corrects for Citizens' failure to collect CIAC.

4. Materials and Supplies

11. In its original filing, Citizens removed from plant in service three items that were not in service: (1) penstock pipe; (2) 7/10 of a mile of three-phase construction on the Canaan line; and (3) three-phase portions of the Bloomfield line extension. The Company increased the materials and supplies balance in rate base, to include the materials associated with the three items removed from plant in service. The amounts added to materials and supplies are as follows: (1) penstock pipe ($238,600); (2) Canaan line ($5,550); and (3) Bloomfield extension ($47,400). Schultz/DeRonne pf. 8/23/96 at 25; exh. DPS-HWS-1, sch. B-5.

12. The Department recommended that the amount added to materials and supplies for the Bloomfield extension and the Canaan line be disallowed, totaling $52,950. On each of these items, two of three circuits are installed, but are not energized. Schultz/DeRonne pf. 8/23/96 at 25.

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3. Citizens' Reply Brief 3/28/97 at 5.

13. In its rebuttal filing, the Company reduced the amount for materials and supplies by $52,950 to remove the non-energized portions of the Island Pond to Bloomfield circuit and the 7/10 of a mile of the Canaan line. Kiener pf. reb. 9/23/96 at 6; exh. CUC-KMK-1R; exh. CUC-KMK-6, schs. A-4 and B-1.

14. The DPS recommended an additional $238,600 reduction to the materials and supplies balance to remove the cost of the penstock pipe. Schultz/DeRonne pf. 8/23/96 at 26; exh. DPS-HWS-1, sch. B-5.

15. The penstock pipe was purchased as part of VED's relicensing effort related to the West Charleston hydroelectric project. Avery pf. 9/23/96 at 9.

16. The timing of the installation of the penstock pipe is dependent on the relicensing of the West Charleston site. The Company has acknowledged that the pipe may never be utilized. Schultz/DeRonne pf. reb. 12/11/96 at 9; tr. 11/1/96 at 60-61 (Avery).

Discussion re: Materials and Supplies

Over the course of the hearings, the Company concurred in the Department's proposed adjustments to materials and supplies, with the exception of the penstock pipe. However, in its brief, Citizens agrees that the pipe should be removed from materials and supplies, given that there is no evidence that it will be used to provide service to ratepayers within the next year.[4] I agree with the parties that all costs associated with the penstock pipe and the non-energized portions of the Canaan line and Bloomfield extension should be removed from rate base.

5. Working Capital

17. Citizens relied on the formula method for determining its working capital requirements. Under the formula method, the Company's expenses are separated into two components: purchased power, and all other operating and maintenance ("O&M") expenses. The expenses are segregated into these two categories to recognize the difference in timing for the payment of the two. Purchased power expenses typically are paid closer in time to when

4. Citizens' Brief 3/14/97 at 112.

the Company, on average, receives payments from its ratepayers. O'Brien pf. reb. 9/23/96 at 52-53.

18. To calculate the working capital allowance, both the Company and the Department agree that the appropriate fractions are 1/24 for purchased power expenses and 1/8 for other O&M expenses. (I.e., working capital is calculated by multiplying purchased power expenses by 1/24, multiplying other O&M costs by 1/8, and adding the two results.) O'Brien pf. reb. 9/23/96 at 53.

19. Citizens' initial filing included a working capital allowance of $1,493,354, comprised of two components: $659,433, which represents 1/24 of the Company's projected purchased power expense; and $833,921, which is 1/8 of its adjusted O&M expense. Schultz/DeRonne pf. 8/23/96 at 26.

20. The Department proposed additional adjustments to the working capital allowance to remove non-cash items from the O&M component, and to remove all purchased power costs. Schultz/DeRonne pf. 8/23/96 at 27.

21. The non-cash items that the DPS recommends removing from the O&M expenses used in the working capital calculation are $1,794,453 for amortization of demand-side management ("DSM") costs, $65,563 for depreciation on transportation equipment, and $68,172 of uncollectible expense, for a total of $1,982,188. Schultz/DeRonne pf. 8/23/96 at 27.

22. The Department justifies its proposed denial of any working capital allowance for purchased power costs on the theory that those costs are supported by accounts payable rather than by cash reserves. The Company's accounts payable, on average, more than offset the average purchased power costs. Schultz/DeRonne pf. 8/23/96 at 27; exh. DPS-HWS-1, sch. B-7 at 2.

23. The balance in the Company's accounts payable does not indicate when the Company receives the cash payment for those accounts. O'Brien pf. reb. 9/23/96 at 54-56.

24. The parties have stipulated to power costs, with the exception of the treatment of replacement power costs for the Number 11 dam. Citizens revised its proposed working capital allowance to reflect the stipulated power costs, and to reflect its agreement to remove diesel maintenance costs. Exh. CUC-KMK-6, schs. B-1, B-5, and C-2 at 4.

Discussion re: Working Capital

Citizens has agreed with the Department's recommendation to remove the non-cash items from O&M expense in determining the working capital allowance. This is an appropriate adjustment, because no working capital is needed for non-cash expenses. Removing the non-cash items results in a reduction of $241,024[5] to the working capital allowance. The working capital allowance should also reflect adjustments to other O&M expenses discussed elsewhere in these Findings.

The Department's proposed elimination of any working capital allowance for purchased power costs is not appropriate. There is no evidence that the accounts payable balance obviates the need of the Company to advance the cash needed to pay its power bills. Absent a lead-lag study, the Board should accept the formula method of calculating a working capital allowance for purchased power costs equal to 1/24 of those expected costs. The working capital allowance for purchased power costs should be $645,690, which represents 1/24 of the power costs determined in Part III(B)(27) of these Findings.

6. Cash Balance

25. Citizens originally included $38,442 in rate base for its average test year cash balance. This is in addition to the working capital allowance that Citizens included in rate base. Schultz/DeRonne pf. 8/23/96 at 28-29.

26. The rate base cash balance amount consists of two components. The first is $15,000 for Citizens' "Working Fund - Payroll Account." The second component is $27,500 associated with the Company's "Working Fund - Manager Fund." Schultz/DeRonne pf. 8/23/96 at 28.[6]

27. The O&M expenses to which Citizens applies the 1/8th formula for calculating its working capital request includes test year payroll expense. The Department recommends that

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5. Calculated by multiplying the 1/8 working capital factor for O&M expenses times the $1,982,188 of non-cash items that are being excluded.

6. While Citizens' original filing showed a rate base figure of $38,442 for average test year cash balance, the Department's testimony showed a total of $42,500, instead. This difference need not be resolved, because Citizens has agreed to remove the cash balance in its entirety, as noted in the Discussion below.

the payroll component of the cash balance request be removed from rate base, to avoid double counting. Schultz/DeRonne pf. 8/23/96 at 29.

28. The most recent internal audit report of VED, which is conducted by the Internal Audit Department of the Company's Stamford Administrative Office, recommended that the working fund balance be reduced from $27,500 to $15,000. Exh. DPS-HWS-2, pages 32 - 34.

29. The Department recommended that rate base be reduced by an additional $12,500 in order to reduce the working fund balance to that recommended by Citizens' own internal auditors. Schultz/DeRonne pf. 8/23/96 at 28-29.

30. Citizens agreed with the Departments recommendation that the cash requirement for the working fund be reduced by $12,500 and reflected the revision in its rebuttal filings. Exh. CUC- KMK-1R; exh. CUC-KMK-2R, sch. B-1.

Discussion re: Cash Balance

The cash balance of $15,000 associated with the payroll account should be excluded from rate base, as payroll expense is included in the O&M expenses to which the 1/8th formula is applied in the working capital calculation. As a result, the required cash working capital associated with payroll is already included in rate base.

In its rebuttal filings, Citizens agreed with the Department's recommendation to reduce the cash balance associated with its "Working Fund—Manager Fund" from $27,500 to $15,000. In its brief, Citizens has gone one step further, and agreed to remove in its entirety the cash balance, for both the Payroll and the Manager's Fund, given that it is employing the formula method to establish its working capital allowance.[7]

I agree with Citizens' final position, as set forth in its brief, that no cash balance should be included in rate base, because the Company's working capital requirements have already been included in its working capital allowance. Consequently, the cash balance should be excluded from the rate base calculation.

7. Account 232.5 Balance

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7. Citizens' Brief 3/14/97 at 116, and Att. 1 at 1, line 12.

31. The Company's test year books contained $300,139 in Account 232.5, which is a current liability account. Schultz/DeRonne pf. 8/23/96 at 8; exh. DPS-HWS-2, page 1.

32. The Account 232.5 credit balance relates to an agreement between the DPS and Citizens in which VED and the DPS track the DPS's sales of New York Power Authority power to eligible customers. VED collected the DPS revenues as part of the agreement. If the DPS over-collected on its tariffs, VED held the balance to be amortized over the next twelve months against future DPS billings; the liability account was set up to track these amounts. The Department discontinued making these sales in 1993. The Account 232.5 balance has remained open since that time. Avery pf. reb. 9/23/96 at 2.

33. According to the Company, Account 232.5 is similar to a fuel adjustment clause and the balance resulted because the Department over-collected on its sale of power to residential customers. Avery pf. reb. 9/23/96 at 3.

34. VED issued statements to the Department regarding the balance in Account 232.5 until July 1993, when the Department discontinued making the sales. Avery pf. reb. 9/23/96 at 4.

35. VED had use of the $300,139 recorded in Account 232.5 for several years. The amount represented a cost-free source of working capital to the VED during the period that it was on the Company's books. Schultz/DeRonne pf. reb. 12/11/96 at 8; tr. 11/1/96 at 63 (Avery); tr. 2/6/97 at 171-172 (Love).

36. During the November 7, 1996, hearing in this proceeding, Citizens paid the $300,139 to the Department. Tr. 11/7/96 vol. II at 66-67.

<u>Discussion re: Account 232.5 Balance</u>

Citizens does not dispute that the $300,139 in Account 232.5 has provided it with a cost-free source of funds. The Department has recommended that rate base be offset by the $300,139.

Citizens disagrees, contending that because the credit balance from Account 232.5 has now been eliminated, no rate base adjustment should be made. Citizens further contends that

to accept the Department's proposed adjustment would constitute impermissible retroactive ratemaking.[8]

I recommend that the Board adopt the Department's proposed adjustment. Citizens' arguments ignore a key point: the rates that are set in this proceeding will be effective retroactively to November 1, 1995. Although the Company finally returned the $300,139 to the Department, it did not do so until November 7, 1996. Thus, for the entire first year to which these rates apply, Citizens received the benefits of this cost-free source of funds.

8. Stamford and Harvey Administrative Offices

a. Four-Factor Plant Allocation

37. Citizens' Vermont Electric Division is allocated a portion of common plant-in-service and accumulated depreciation from both the Stamford Administrative Office ("SAO") and the Electric Sector, which is located at the Harvey Administrative Office ("HAO"). Schultz/DeRonne pf. 8/23/96 at 69.

38. A four-factor formula is used to charge general administrative costs to the different Citizens operating properties, such as the VED. The four-factor formula is a mathematical calculation that results in an average of the relationship of each property to the total properties for four elements: (1) utility plant-in-service; (2) O&M expense; (3) customers; and (4) payroll charged to O&M. These are areas in which the corporate offices provide common functions and support for the operating properties. In each of the four categories, a percentage for each property is determined by dividing the property-specific amount by the total amount. For each specific property, the resulting four percentages are averaged, giving the four-factor allocator for that property. Mason pf. reb. 9/23/96 at 19.

39. As noted previously, in order to determine the average rate base for the test year of 1995, the year-end 1994 and year-end 1995 balances of plant in service are averaged. The 1994 year-end balance is used as one of the two points in calculating the average test year rate base because that balance would be the same as the balance on the Company's books as of the

8. Citizens' Reply Brief 3/28/97 at 21-22.

start of business on the first day of the 1995 test year. Finding 1, above; tr. 11/13/96 at 317-318 (DeRonne).

40. In determining the amount of allocated common costs to add to VED's rate base for the SAO and Electric Sector, Citizens applied the 1994 four-factor formula for VED to the December 31, 1994, balances of plant in service and accumulated depreciation, and the 1995 four-factor formula to the December 31, 1995, balances. The resulting amounts were then averaged, as the rate case uses an average 1995 rate base. Schultz/DeRonne pf. 8/23/96 at 69.

41. Citizens' original filing included $257,785 of SAO common plant in service allocated to the VED and $116,141 of accumulated depreciation allocated from SAO. The filing also contained $36,727 of common plant in service and $3,715 of accumulated depreciation allocated from the Electric Sector to VED. Exh. DPS-HWS-1, schs. B-2 and B-3.

42. The Department contends that the 1995 four-factor allocator should be applied to both the December 31, 1994, and the December 31, 1995, balances of plant in service and accumulated depreciation, because the test year is 1995. This results in an $8,570 reduction to rate base for SAO allocated amounts, and a $2,419 increase to rate base for Electric Sector allocated amounts. Schultz/DeRonne pf. 8/23/96 at 69; exh. DPS-HWS-1, schs. B-2 and B-3.

Discussion re: Four-Factor Plant Allocation

Citizens disagrees with the Department's proposed application of the 1995 four-factor allocator to the 1994 year-end balances.[9] Citizens contends that it "used the appropriate 1994 and 1995 allocators for the costs incurred in those respective years and averaged them. The allocator to be used for each year must reflect the ratio of the costs that were to be allocated in the year the costs were incurred, and not some ratio from a year foreign to the costs to be allocated."[10] While on first blush this contention appears valid, it fails to survive closer scrutiny.

Citizens misconstrues the use of the four-factor allocator in the determination of rate base when it claims that the allocator is used to distribute costs in the year in which the costs were incurred. In fact, for the rate base calculation, the four-factor allocator is applied to

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9. Citizens' Brief 3/14/97 at 6; Citizens' Reply Brief 3/28/97 at 19.
10. Citizens' Brief 3/14/97 at 6.

plant balances, rather than to costs incurred only in a particular year, in an attempt to allocate corporate common plant appropriately to the VED and other operating properties of Citizens. In setting rates in this docket, we are trying to determine the actual costs of providing service to Citizens' Vermont customers. The only reason that the 1994 year-end plant balance is used in the determination of rate base is to calculate the average *1995* plant balance. Because we are setting rates based on 1995 plant-in-service, the appropriate four-factor allocator is the one for 1995.

The Department's proposed adjustment is appropriate, and I recommend that the Board adopt it.

Although I find the Department's position to apply the 1995 four-factor allocator reasonable, I note that in Docket No. 5656, the Board went a step beyond using the test year allocator for allocating Citizens' corporate common plant, and used the allocator that had been determined for the rate year. Docket No. 5656, Order of 1/26/94 at 56. The Board determined that use of the rate year allocator was appropriate because each year's allocator is in fact based on the prior year's data. *Id*. Thus, the Board's precedent from Docket No. 5656 would call for using the 1996 four-factor allocator in the current proceeding because that allocator would relate to 1995 data. However, the parties have only presented evidence on the 1994 and 1995 allocators.[11] For the reasons explained here and in the Order in Docket No. 5656, the Board should use the most recent allocator that is in the record, which is the 1995 allocator.

b. SAO Overhead Allocations to Plant In Service

43. SAO overhead costs are allocated to the VED according to Citizens' cost allocation model. Included in these allocations are SAO costs that are allocated to construction overhead. In 1995, Citizens charged $1,887,347 of "target adjustments" to a number of Improvement Orders. The Company described these adjustments as "trueing [*sic*] up actual dollars spent for overheads from 1991 to 1995 with the estimates used for overheads during

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11. Consequently, the adoption of the test year allocator in the current case should not be interpreted as a repudiation of the Board's determination on the issue in Docket No. 5656.

this same time period." Schultz/DeRonne pf. conf. 8/23/96 at 1-2;[12] exh. DPS-HWS-2 at 140-141.

44. During the test year, VED was allocated $1,979,744 of SAO overhead costs for construction, which were added to plant in service. Schultz/DeRonne pf. supp. 11/13/96 at 3.

45. Included in the $1,979,744 added to plant in service during the test year for overhead amounts allocated from the SAO was $932,096 in "retroactive adjustments." The adjustments relate to costs that were expensed during 1993 and 1994, but that Citizens later determined should have been capitalized as overhead. In other words, Citizens claims that its 1993 and 1994 capital costs were understated and the 1993 and 1994 expenses were overstated. The amount consists of $691,254 labeled by Citizens as 1994 administrative and general costs and $240,842 labeled as 1993 and 1994 administrative and general costs. Schultz/DeRonne pf. supp. 11/13/96 at 2-3; exh. DPS-HWS-1R, sch. B-9, lines 13-14; exh. CUC-RLOB-5.

46. Rates resulting from Docket No. 5809 for VED were calculated based on a test year ending May 31, 1994. As a result, some of the costs included in Citizens' retroactive overhead adjustment have already been recovered in rates due to their inclusion as expenses during 1993 and 1994. Schultz/DeRonne pf. supp. 11/13/96 at 3.

47. Citizens' witness acknowledged that "[i]t is possible that some amount, around $100,000 of the total corrections of $1,887,347, might have been included in the consideration by the Board during the May 31, 1994 test year in Docket No. 5809." O'Brien pf. reb. 12/11/96 at 12.

48. Subsequent to 1995, Citizens determined that it had over-allocated $729,351 of SAO overhead costs to VED during the 1995 test year. The correcting adjustment was made by Citizens during 1996. The adjustment to correct the 1995 allocations of SAO overhead costs was not reflected in Citizens' filing, resulting in 1995 year-end plant in service being overstated by $729,351. Schultz/DeRonne pf. supp. 11/13/96 at 3-4; tr. 11/26/06 at 161 (Mason); exh. DPS-Cross-51.

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12. This testimony was originally filed under seal; however, at the hearing the parties agreed that the information in the testimony need not be kept confidential, and thus it is no longer under seal. Tr. 11/13/96 at 305.

49. The Department contends that the December 31, 1995, balance of plant in service, which is used as one of the two points in determining the average plant in service for the 1995 test year, should be reduced by $932,096 to remove Citizens' retroactive overhead adjustment, and by $729,351 to reflect Citizens' true-up of test year SAO allocated overheads made subsequent to year end. Included in the amounts allocated to VED for these two items is overhead that was charged to DSM and CWIP balances, which the Department proposed to adjust elsewhere. According to the Department's proposed treatment, once the DSM and CWIP portions of the allocated overheads are removed, the test year end plant in service is overstated by $1,393,807. The plant in service would thus be reduced by $696,904 for the two items, as the test year is based on the average rate base ($1,393,807 ÷ 2 = 696,904). Schultz/DeRonne supp. pf. 11/13/96 at 4; exh. DPS-HWS-1R, sch. B-9.

Discussion re: SAO Overhead Allocations to Plant in Service

Citizens contends that the target adjustments are appropriate corrections to its books, and that therefore the adjustments should be reflected in rates.[13] Consequently, the Company agrees with the Department's proposed adjustment to recognize the $729,351 true-up of 1995 allocated overheads, but disagrees with the Department's proposed rejection of the target adjustment for 1993 and 1994 costs.

Because the parties agree that the 1995 target adjustment of $729,351 is appropriate, and because that adjustment is necessary to obtain an accurate allocation of overheads to the VED, I recommend that the Board accept this adjustment.

With respect to the target adjustment for 1993 and 1994 costs, I agree with Citizens that, in principle, such an adjustment would be appropriate to avoid understatement of plant in service. However, I cannot accept the Company's proposed result. Citizens has acknowledged that because they were previously expensed, some of these costs have already been recovered from Vermont ratepayers. To account for this prior recovery from ratepayers, Citizens proposes that plant in service be reduced by $100,000 to reflect Mr. O'Brien's

13. Citizens' Brief 3/14/97 at 7-8; Citizens' Reply Brief 3/28/97 at 20-21.

estimate of the amount of these costs that have already been recovered from ratepayers.[14] Mr. O'Brien's specific testimony—that "[i]t is possible that some amount, around $100,000" of the retroactive adjustment may have been included in the test year figures in Docket No. 5809—falls far short of the quality of evidence that the Company must provide to substantiate an amount that it wishes to recover from ratepayers. If Citizens wished to include the target adjustment for 1993 and 1994 allocated overhead costs, it should have presented an accurate accounting of the net, uncollected amount of that adjustment. This it failed to do, and consequently cannot expect to recover an unproven dollar amount from Vermont ratepayers.

The Department's recommendations—that Citizens' retroactive adjustment for SAO overhead costs of $932,096 be disallowed, and that the 1995 cost allocation model adjustment that was made in 1996 for SAO allocated overheads of $729,351 be reflected—should be adopted. Because a portion of the amount included in these SAO overheads was removed elsewhere by the Department in its adjustments to DSM costs and CWIP costs, the Department's recommendation is that test-year-end plant in service should be reduced by $1,393,807. Although I do not fully accept those other proposed adjustments to DSM and CWIP, the record does not appear to include sufficiently detailed information to separate out the amount of these SAO overheads reflected in each proposed DPS adjustment to DSM and CWIP. To avoid the possibility of any double counting, then, I recommend that the Board adopt the Department's proposed $696,904 reduction to rate base, even though this number has been reduced by the Department to reflect a proposed reduction in CWIP for EPA compliance costs that I have not accepted.

c. SAO Plant Adjustment—Specific Plant Items

50. In a previous Citizens' rate case, Docket No. 5656, the Board determined that rate base and depreciation expense should be reduced for the amounts allocated to VED for the office and furnishings provided to a retired Company officer, Ishier Jacobson. The Board also removed certain artwork and expensive office furnishings that were allocated to VED from SAO from rate base. The Board determined that there was no evidence that the Vermont

14. Citizens' Reply Brief 3/28/97 at 21.

ratepayers are receiving a benefit from Mr. Jacobson's services. In the current case, the Company removed the items that were specifically identified in Docket No. 5656 for disallowance from rate base. Docket No. 5656, Order of 1/26/94 at 49-52; Schultz/DeRonne pf. 8/23/96 at 66-67; exh. CUC-KMK-2R, sch. B-3.

51. The Department contends that there is an additional $211,088 of leasehold improvements and $37,858 of office furniture related to Mr. Jacobson's office that was not adjusted for in Docket No. 5656, resulting in an additional $248,946 in SAO plant in service related to Mr. Jacobson's office beyond the specific items identified in Docket No. 5656. Schultz/DeRonne pf. 8/23/96 at 66-67; exh. DPS-HWS-1, sch. C-8, page 4.

52. In addition to the items related to Mr. Jacobson's office, rate base allocated from SAO to VED includes several other costly items, including the following: (1) three credenzas ($11,459 total); (2) eleven credenzas ($69,005 total); and (3) three pictures ($18,330 total). Citizens did not adjust to remove these items, totaling $98,794, from rate base. The accumulated depreciation on these items is approximately $27,600. Citizens has consented to removal from rate base of the amounts for the fourteen credenzas and three pictures. Schultz/DeRonne pf. 8/23/96 at 67.

53. Disallowances for the additional plant in service items for Ishier Jacobson and the other expensive furnishings result in the following adjustments on a VED basis, after allocation: (1) $4,834 reduction to plant in service; (2) $2,795 reduction to accumulated depreciation; and (3) $741 reduction to allocated depreciation expense. Exh. DPS-HWS-1, sch. C-8 at 4.

54. In its rebuttal filing, Citizens included an additional reduction of $73,249 to SAO plant in service, in order to remove certain SAO Company cars. This results in a $1,018 reduction to VED plant in service after application of the 1.39 percent 1995 four-factor ($73,249 x 1.39%). Citizens reduced the beginning and ending SAO accumulated depreciation balances to be allocated by $24,656 and $42,970, respectively, for these Company cars. This results in a $33,813 reduction to SAO accumulated depreciation, on an average basis, and a $470 reduction on a VED basis once the 1.39 percent four-factor is applied. Exh. CUC-KMK-2R, sch. B-3.

<u>Discussion re: SAO Plant Adjustment—Specific Plant Items</u>

Citizens has now agreed, albeit grudgingly, to all of the Department's proposed adjustments for specific SAO plant items.[15] I recommend that the Board adopt the Department's adjustments, as well as the additional adjustments for SAO Company cars that Citizens offered in its rebuttal testimony.[16]

9. EPA Compliance Costs

55. In its original filing, Citizens proposed to include in rate base $740,121 of EPA compliance costs. Koliander pf. 8/23/96 at 6.

56. The Company later reduced its request to $707,427. The reduction reflects the removal of $32,694 associated with testing and removal of PCB transformers, which had already been included in plant accounts 107 and 183. Thus, in the Company's original filing, this amount was included twice, once in CWIP and once in plant. The amount expended in EPA compliance costs during the period from May 1994 through December 1995 is $707,427. Kiener pf. reb. 9/23/96 at 4; exh. CUC-KMK-6, sch. B-7.

57. In 1994, Citizens began a clean-up effort at VED's Pine Hill warehouse site. Findings 68-74.

58. Citizens' personnel used the Pine Hill warehouse for, among other things, cleaning vehicle parts with solvents. The parts would then be washed with a hose. The bay in which the vehicle parts were cleaned drained into a floor drain which exited the building and emptied into a drywell. The drywell consisted of a concrete box with no bottom, from which the solvents (and any other liquids) escaped into the soil. Exh. DPS-WS-8 at 5 of 12; exh. DPS-WS-5 at 14 of 22; tr. 11/6/96 at 22 (Liptak).

59. In October 1988, Thomas Williams an electrical engineer employed by Citizens, prepared an Environmental Audit Report. Exh. DPS-WS-8; tr. 1/8/97 at 61-63 (Avery).

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15. Citizens' Reply Brief 3/28/97 at 5. Although it has now consented to the Department's adjustments, Citizens continues to believe that some of those adjustments result in double-counting (i.e., items being removed twice from rate base). Citizens has acceded to the DPS adjustments because it "believes the record is muddled on this issue." *Id.* I agree that the record is less than clear with respect to whether there is any double-counting. Citizens, as the keeper of the relevant accounts, was in the best position to set the record straight.

16. The Department concurs in these additional Citizens' adjustments. DPS Brief 3/14/97 at 131-132.

60. The Report summarizes an audit which was performed on October 20 and 21, 1988, to assess whether the VED was in compliance with environmental regulations regarding hazardous substances. The Report concluded that "[i]n general, the Vermont Electric Division is in very good shape with respect to environmental compliance." The Report also identifies several areas which required further attention to bring the Division into compliance. The Report contains thirteen recommendations as to how VED's environmental procedures can be improved. Exh. DPS-WS-8 at 8-11.

61. Included among the Report's audit results for the Pine Hill warehouse was the following:

> One of the bays in the warehouse is the location at which vehicle maintenance is performed. This process uses solvents to clean vehicle parts which are then washed down with a hose. The bay drains into a pit which then overflows into a leech [*sic*] field. The concern is that hazardous substances contained in the solvents may be ending up in the leech [*sic*] field, and may be further migrating into the surrounding environment.

Exh. DPS-WS-8 at 5.

62. Included among the Report's recommendations for the Pine Hill warehouse was the following:

> Solvents that are used to clean vehicles parts and are then washed off have the potential to eventually reach the environment through the Company's leech [*sic*] field. One solution proposed was to install a screen on the drain from the vehicle bay that allows water to pass through but not oil or other compounds. This requires further investigation, as do the practices of other utilities in the area.

Exh. DPS-WS-8 at 8.

63. On March 1, 1988, an accident occurred at the Pine Hill warehouse, in which PCB-contaminated transformer oil was spilled into the floor drain. The spill was caused when a forklift operator tipped over a transformer. Guyette pf. 8/23/96 at 79.

64. At the time of the spill, the warehouse had a gutter running toward the middle of the floor. The floor sloped toward the gutter, and the gutter sloped at a slight angle toward a discharge-and-catch basin. Guyette pf. 8/23/96 at 79.

65. Citizens' employees stabilized the tipped transformer, and formed a dam in the gutter using the coat of Steven Guyette, Citizens' Superintendent of Transmission and

Distribution. They then spread absorbent material throughout the warehouse area to absorb the oil. The employees then shoveled the oil-soaked absorbent material into several 55-gallon drums. Guyette pf. 8/23/96 at 2, 80.

66. At the time, the catch basin into which the gutter drained was approximately three feet deep. A pipe located approximately 4 to 6 inches above the bottom of the catch basin drained the catch basin into a drywell. Once the dike was in place and absorbent material spread, Mr. Guyette checked the catch basin to see whether any oil had escaped. He found the catch basin to be full of oil up to the bottom of the discharge pipe. He could not tell whether any oil had escaped through the pipe to the drywell, but he believed at the time and continues to believe that he and his crew captured and recovered the majority of the oil that spilled from the transformer. Guyette pf. 8/23/96 at 80-81.

67. Mr. Guyette's crew cleaned up the area that day, including the oil in the catch basin, the oil on the floor, and the oil in the gutter. Citizens contacted New England Marine Contractors to assess the situation and conduct a more thorough clean-up. Guyette pf. 8/23/96 at 81.

68. In May of 1994, Citizens received a letter from the U.S. Environmental Protection Agency ("EPA") notifying it that EPA intended to undertake a site inspection of the Pine Hill warehouse during the summer of 1994. Liptak pf. reb. 9/23/96 at 2.

69. The purpose of the EPA site inspection was to assess whether, under CERCLA, the site should be further considered for addition to the National Priority List. Upon reviewing the letter, Citizens contacted The Johnson Company. Martin Johnson and Alan Liptak of The Johnson Company reviewed the site, examined records, and coordinated with the State of Vermont's Hazardous Materials Management Division ("HMMD") of the Agency of Natural Resources ("ANR" or "Agency") to develop an acceptable Site Investigation Plan. The plan's purpose was to describe how Citizens and The Johnson Company would determine whether soils or groundwater beneath the site were contaminated, and if contamination were found, how to delineate the extent of the contamination. In June 1994, the Johnson Company submitted the Site Investigation Plan to the HMMD, which approved the plan on June 28, 1994. Liptak pf. reb. 9/23/96 at 2-3.

70. Once the Site Investigation Plan was approved, The Johnson Company performed the work described in the plan during July through October of 1994. The results of the investigation were submitted to the HMMD in a Remedial Investigation Report dated November 1994, and revised in May 1995 in response to comments from the HMMD. Liptak pf. reb. 9/23/96 at 3.

71. On August 16, 1994, the EPA conducted a site inspection, which was performed by TRC Environmental, Inc., an EPA contractor. The EPA contractor produced a trip report dated August 25, 1994, and a site inspection summary report dated September 15, 1995. According to Mr. Liptak, the EPA has not responded to these documents, nor has it taken any actions independent of the HMMD since the documents were prepared. Liptak pf. reb. 9/23/96 at 5-6.

72. Subsequent to the EPA site inspection, The Johnson Company prepared a Corrective Action Plan ("CAP") for the site, at the direction of HMMD. The CAP was comprised of two parts. First, the drywell, located northwest of the warehouse building, would be dug out and removed entirely, along with any contaminated soils. Second, the soil in the contaminated areas that had been identified would be excavated and subjected to bioremediation. The HMMD approved the CAP in October 1995. Liptak pf. reb. 9/23/96 at 6-7; exh. CUC-ARL-2.

73. The Johnson Company performed the approved remedial actions during October through December, 1995. The Johnson Company issued a written report of these actions during February, 1996. The HMMD accepted the report in March of 1996. Liptak pf. reb. 9/23/96 at 7-8; exh. CUC-ARL-3.

74. At present, all of the identified corrective actions have been completed. The Johnson Company continues to work with Citizens to monitor the bioremediation process, which seems to be working well. The remaining soil in the vicinity of the warehouse now meets standards for residential property, as set by the EPA. Liptak pf. reb. 9/23/96 at 9.

75. Mr. Liptak testified that the level of contamination that he found at the Pine Hill warehouse site was similar to levels that he had seen in other such garages throughout the State. Liptak 9/23/96 pf. at 8-9; tr. of 11/6/96 vol. II at 74-75.

<u>Discussion re: EPA Compliance Costs</u>

The Department has presented essentially two arguments for the disallowance of Citizens' EPA compliance costs. First, in its testimony, the Department argued that the clean-up project was not completed and its costs were not known. It is clear from the evidence that the project has been sufficiently completed and that its costs are sufficiently well established to allow inclusion in rate base.

The Department's second argument is the more powerful. The DPS contends that Citizens was imprudent in dumping hazardous chemicals into an unlined hole in the ground, especially after being put on notice from the Company's own internal environmental audit.[17] I agree with the Department, but only to a degree: Citizens' knowingly allowing solvents to drain into an unlined dry well creates a strong suspicion of imprudence. Notwithstanding the performance of other, similar garages, Citizens has an obligation to comply with state and federal environmental laws designed to prevent the release of hazardous materials into the environment. I would conclude that failure to comply with these environmental protections is imprudent utility behavior. However, I cannot base a conclusion of imprudence solely on suspicion, and the Department has not directed me to evidence in the record and/or legal argument sufficient to support such a conclusion. For example, a finding of imprudence could have been possible had the Department demonstrated that the Company discharged chemicals in violation of the law at the time the discharge occurred, but no such demonstration was made.[18] Furthermore, even if the Department had demonstrated imprudence by the Company in the discharge of solvents, there has been no showing that the discharge of solvents resulted in hazardous materials in the drywell,[19] or that the discharge of solvents contributed to the need for or cost of the clean-up.

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17. DPS Brief 3/14/97 at 166; DPS Reply Brief 3/28/97 at 26.

18. The Department does contend in its briefs that Citizens misled state environmental authorities about the severity of the 1988 oil spill. DPS Brief 3/14/97 at 166; DPS Reply Brief 3/28/97 at 27. However, the Department does not contend that this had any effect on the necessity or magnitude of the clean-up costs. Nor does the Department in its briefs present any rationale by which this alleged misleading of environmental regulators would serve as a basis for denying recovery of the clean-up costs.

19. *See* tr. 11/6/96 vol. II at 19-21 (Liptak).

Absent a sufficient showing that any of the EPA compliance costs are the result of the Company's imprudence, I recommend that the costs be allowed in rate base.

10. Demand-Side Management

76. Citizens' rate base should be adjusted downward by $5,893,696 to reflect the removal of Demand-Side Management costs. This adjustment is supported by Part III(D) of these Findings.

11. Number 11 Dam

a. Background

77. The Newport Diversion Dam No. 11 ("Dam No. 11") is a hydroelectric facility that Citizens owns on the Clyde River in Newport, Vermont. The dam is part of a network of Citizens' hydroelectric facilities in the Clyde River Basin. Cueto pf. 8/23/96 at 1; exh. DPS-JRC-31 at 1.

78. Dam No. 11 is licensed under the authority of the Federal Energy Regulatory Commission ("FERC"). The original license for Dam No. 11 expired at the end of 1993. Cueto pf. 8/23/96 at 2.

79. On Sunday, May 1, 1994, the Clyde River breached the right earthen abutment of Dam No. 11. Essentially, the river ran free, and Citizens could no longer generate electricity at the site. Citizens was in the process of FERC relicensing review for Dam No. 11 when the dam failed. Cueto pf. 8/23/96 at 2, 4.

80. Citizens has now obtained regulatory approvals to remove the dam and stabilize the embankment. Cueto pf. 8/23/96 at 17.

b. Costs Included in Rate Filing

81. In responses to information requests, the Company stated that the cost of removal of Dam No. 11 was not included in its rate request in this proceeding. Citizens corrected this statement in a response to a later information request. The Company's original response conflicted with Schedule B-9 and Schedule B-7 of the Company's April, 1996, compliance

filing. These two schedules include $222,392 (B-7) and $621,622 (B-9) of Dam No. 11 removal costs in rate base. Koliander pf. 8/23/96 at 5; exh. DPS-REK-1; exh. DPS-REK-2.

82. Citizens witness Thomas prepared the estimate of the Dam No. 11 removal costs shown in Schedule B-9 of the Company's April 1996 compliance filing. He based his estimate on a 1994 Feasibility Study of the project, which indicated a cost of $1,498,185 to remove the entire dam and the buttress wall, and to stabilize the embankment. In deriving the $621,622 estimate shown on the April 1996 Schedule B-9, Mr. Thomas deducted some costs from the Feasibility Study estimate, including costs already incurred that had been recorded in plant. Thomas pf. reb. 9/23/96 at 24-25.

83. Citizens is now proposing recovery in this case of $758,600 of costs it has incurred in 1996 and expects to incur in 1997 in connection with embankment stabilization and dam spillway removal at Dam No. 11. The 1996 costs are arrived at as follows: as of November 20, 1996, Citizens had incurred costs of $481,100 in 1996 for dam removal and bank stabilization. At that time, Citizens had also incurred additional costs not yet billed which it estimated to be $27,500. Finally, Citizens has estimated bank stabilization costs of $250,000 which are expected to be incurred in the 1997 construction season. Accordingly, including the estimated costs to be incurred in 1997, Citizens now estimates the total cost for bank stabilization and dam removal in 1996-97 to be $758,600, in lieu of the $621,622 which had been set forth in Schedule B-9 of the Company's April 1996 compliance filing. Exh. CUC-FWT-6; exh. CUC-KMK-6, sch. B-9.

84. In addition to the $758,600, Citizens has requested rate base treatment for $222,392 related to non-revenue producing CWIP representing costs incurred in 1995 at Unit 11 and charged to Improvement Order 3005. Exh. CUC-KMK-6, sch. B-7; exh. DPS-HWS-2 at 6; exh. DPS-REK-2 at 12.

85. In addition to the amounts that Citizens included in rate base under the headings “non-Revenue Producing CWIP” and “Embankment Stabilization & No. 11 Dam Spillway Removal,” the Department identified at least $696,548 of further costs included in test year (1995) plant in service for the Unit No. 11 embankment stabilization/dam spillway project. (As noted above in Finding 82, Citizens' cost estimate in its Schedule B-9 had excluded such costs.) The Department initially believed that $238,600 of the amount may have been

associated with the penstock pipe which the Department has recommended for removal elsewhere (under the heading of "Material & Supplies.") Consequently, the Department recommended that rate base be reduced by an additional $457,948 ($696,548 - $238,600) for the Dam No. 11 costs included in test year plant in service. Schultz/DeRonne pf. 8/23/96 at 13; exh. DPS-HWS-1, sch. B-1 at 2: exh. DPS-HWS-2 at 5-6.

86. In his rebuttal testimony, Citizens witness Avery indicated that the penstock pipe was purchased for the West Charleston hydroelectric site, not for the No. 11 Dam project. Avery pf. reb. 9/23/96 at 9.

87. Department witness Schultz indicated during cross examination that his recommended additional adjustment to reduce plant in service by $457,948 for the Dam No. 11 costs should be increased by $238,600 since the penstock pipe was not part of the embankment stabilization project. Tr. 11/13/96 at 205-206 (Schultz).

88. The cumulation of the separate amounts included in rate base by Citizens for the No. 11 Dam embankment stabilization and spillway removal results in a total of $1,677,540 included in Citizens' requested rate base. This amount consists of $222,392 included in "Non-Revenue Producing CWIP"; the Company's revised estimate of $758,600 for 1996-1997 "Embankment Stabilization & No. 11 Dam Spillway Removal"; and $696,548 included in 1995 plant in service. Findings 81-87, above.

89. The Department has recommended that the Board disallow all costs flowing from the breach of the No. 11 dam, including but not limited to repair, engineering, permitting, litigation, damages, lobbying and replacement power. That recommendation is based on the Department's contentions that the No. 11 dam was imprudently constructed and maintained and that Citizens acted imprudently after the dam was breached in 1994. Steinhurst pf. 8/23/96 at 20.

90. In its prefiled testimony, the Department further proposed that Citizens' power costs be reduced by $189,000 associated with replacement power due to the loss of the Unit No. 11 dam. The Department and Citizens have reached an agreement on the appropriate level of power costs, but the agreement states as follows: "CUC and DPS agree that the cost of replacement power associated with the Unit No. 11 Hydro is $189,000. No agreement has been reached as to whether CUC is entitled to include that cost in rates." The Department

continues to argue that the cost of replacement power should not be recovered through rates. Lamont pf. 8/23/96 at 9; Steinhurst pf. 8/23/96 at 20; exh. Joint-1.

Discussion re: Costs Included in Rate Filing

The Department contends that Citizens' rebuttal filing included an additional $621,622 in rate base for the Dam No. 11 embankment stabilization and spillway removal. According to the DPS, this addition to the Company's initial filing constitutes updating, which is not allowed.[20] This argument is without merit, for two reasons. First, as even the Department's own witness noted in testimony, the Company's original April 1996 compliance filing in fact included these costs. Second, as discussed below in Part III(B)(6)(e) with respect to 401(K) costs, the strict prohibition against updating does not apply in Section 227(b) rate investigations.

In its Reply Brief, Citizens contends that the Department's proposed rate base adjustment of $1,540,562[21] is excessive, because the Department has double-counted the penstock.[22] But the Department has not double-counted the penstock, as the Findings above show. The Department properly *excluded* the penstock in its adjustment, once presented with information from the Company revealing that the penstock was associated with an unrelated project.

Based on the evidence in the record, I conclude that the total costs that Citizens seeks to include in rates for dam removal and embankment stabilization is $1,677,540. I also accept the parties' stipulation that the costs of replacement power for Dam No. 11 are $189,000.

c. Construction of Dam No. 11

91. Dam No. 11 was completed in 1956. Cueto pf. 8/23/96 at 1.

92. A significant amount of testimony was devoted to whether or not a wedge-shaped piece of concrete at the right abutment of Dam No. 11 was a "cut-off" wall. Department

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20. DPS Brief 3/14/97 at 143.

21. The Department's proposed adjustment was based on Citizens' original estimate of $621,622 for 1996-1997 costs. Because Citizens later increased that estimate to $758,600, the total cost reflected in the Findings above is $136,978 higher than that which the Department had calculated using the original Citizens estimate ($758,600 - $621,622 = $136,978).

22. Citizens' Reply Brief 3/28/97 at 6-8.

witness Cueto testified that the wedge was not a cut-off wall. Citizens witness Thomas testified that the wedge was a cut-off wall. *E.g.*, Cueto pf. reb. 12/11/96 at 3; Thomas/Perry pf. reb. 12/11/96 at 8; tr. 12/19/96 at 63-67 (Cueto).

93. The purpose of a cut-off wall is to extend the hydraulic path for water flowing through the earth to move from the upstream side to the downstream side of the dam. Extending the hydraulic path lessens the likelihood of seepage and consequent "piping" failure. Piping failure occurs when water flows through the soil under or adjacent to a concrete dam, causing the finer soil particles to wash out. This increases the water transmissibility, weakening the soil until it fails. Tr. 12/19/96 at 62-64 (Cueto) and 119 (Thomas); Cueto pf. 8/23/96 at 18.

94. Conventional engineering practice would be to include a cut-off wall at the right abutment of the dam. Proper design of a cut-off wall involves analyzing the permeability of the soils in the embankment, in order to design a cut-off wall that will appropriately reduce the hydraulic pressure differential. With a cut-off wall, it is typical also to include a filter bed, in order to control any seepage that may occur even with the cut-off wall. Tr. 12/19/96 at 62-65 (Cueto).

95. Use of cut-off walls evolved from extensive study in the 1940s, during the war. By the time Dam No. 11 was built, conventional engineering practice for dam construction included cut-off walls and filter beds, designed on the basis of a site-specific analysis of soil permeability. Tr. 12/19/96 at 64-65 (Cueto).

96. Both Mr. Cueto and Mr. Thomas agree that the wedge-shaped piece of concrete at the right abutment of Dam No. 11 was not designed in accordance with conventional practice for the design of cut-off walls. Tr. 12/19/96 at 62-65 (Cueto) and 175-176 (Thomas).

97. FERC, its engineering consultant Stone & Webster, and Stephen Knight of Knight Consulting Engineers, all inspected Dam No. 11 shortly after it failed and prepared reports on their inspections. Cueto pf. 8/23/96 at 17; Cueto pf. reb. 12/11/96 at 3; exh. DPS-JRC-31; exh. DPS-JRC-32; exh. DPS-Cross-43.

98. The report of FERC staff, "Report on the Right Abutment Slope Inspection and Stability" dated May 26, 1994, concluded that:

> The right end of the dam was terminated at the hillside and had a small training wall that was not tied into the abutment. This allowed the high flows to impinge on the abutment and develop into the erosional/failure process that caused the breach of the abutment. Seepage under and through this area due to geologic conditions most probably pre-weakened the area making it more susceptible to the failure process.

Exh. DPS-JRC-32 at 2.

99. FERC requested Stone & Webster to conduct an independent assessment of the breached area of the right abutment of Dam No. 11. Included among Stone & Webster's findings is "that the right abutment was tied into soil and not into rock." Stone & Webster further stated:

> Prudent design of dam abutments requires that an effective cutoff be provided at the abutment. This may be accomplished by tying the dam into bedrock at the abutment. If bedrock is not present, cutoff walls can be constructed into the abutment to increase the potential flow path of the water and reduce the hydraulic gradient. If a cutoff wall or an upstream blanket are not present, the potential for piping and failure of the soil materials in the abutment due to a high hydraulic gradient is great. In the right abutment at the Newport No. 11 Diversion Dam, the dam was not tied into bedrock nor is there a cutoff wall or upstream blanket. Hence there is a high hydraulic gradient present and the soil materials in the abutment have been eroded away leaving a gaping hole.

Exh. DPS-JRC-31 at 3-4.

100. Jeffrey Cueto, a professional engineer and the Principal Hydrologist for the State of Vermont, inspected the breached dam with FERC and Stone & Webster, and concurs in their opinion that there was no cutoff wall at the right abutment. Cueto pf. reb. 12/11/96 at 1, 4.

101. Stephen Knight, a professional engineer, inspected the No. 11 Dam on May 23, 1994, for the purpose of determining the cause of the breach, and presented his findings in a report to the Board's Utilities Engineer. Mr. Knight concluded that:

> The spillway was not keyed to the exposed bedrock which is seen at 15± ft upstream of the concrete spillway. (See photograph No. 3.) There was also no observable evidence of sheet piling or other positive core material that would prevent leakage around the spillway end.
>
> These observations lead to the conclusion that the washout was caused by an inadequate key of the concrete into the right abutment soil materials. Frost action in the silt soil was a probable contributing factor in that frost heaving

> would lead to piping of water around the north end. These conditions have probably existed for many years - probably the entire life of this structure.

Exh. DPS-Cross-43.

102. Citizens claims that the dam in fact rested on and was keyed into bedrock. Mr. Thomas testified that after the dam failure, parts of the dam had ledge imbedded in them. However, Mr. Thomas acknowledged that he could not tell whether the entire dam rested on and was keyed into bedrock. Tr. 12/19/96 at 120-124 (Thomas).

103. The wedge of concrete at the right abutment rested on soils, rather than being tied into bedrock. This design was not adequate for the site conditions. Tr. 12/19/96 at 63, 74-78 (Cueto); findings 98-101, above.

104. Citizens' failure to include an effective cut-off wall at the right abutment, or tie the dam into bedrock at the right abutment, constituted imprudence in the original construction of Dam No. 11. Findings 93-103, above.

Discussion re: Construction of Dam No. 11

A great deal of testimony focussed on whether the wedge-shaped piece of concrete at the right abutment was or was not a "cut-off" wall. Putting semantic differences aside, the substantive issue is whether Citizens constructed the dam in accordance with prudent engineering practice. The record is clear that, at the time the dam was built, prudent engineering practice would have required constructing a cut-off wall designed to accommodate the site-specific conditions, with a filter bed to control any seepage that may still occur. The record is clear that, whatever it is called, the concrete wedge at the right abutment of Dam No. 11 did not constitute a cut-off wall that complied with prudent engineering practice of the time.

The Department's expert witness and three independent expert reports all concluded that the dam lacked a cut-off wall, and was not adequately keyed into the soils at the right abutment. The Company's witness could only offer that he could not tell whether at that abutment the dam was resting on soil or bedrock.[23]

The Company attempts to excuse this design failure through reliance on the fact that the Board's predecessor, the Public Service Commission, approved the construction of the

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23. Tr. 12/19/96 at 122-123 (Thomas).

dam and engaged an independent consultant, Dr. Louis Laushey, "to study the proposed project for safety measures."[24] This is of no avail to Citizens, because there is no indication of the scope of Dr. Laushey's review; for example, there is no indication whether Dr. Laushey studied the integrity of the dam design or the site-specific soil conditions, or whether he focussed on some other objective entirely, such as potential downstream flood hazards in the event of dam failure. Regardless of Dr. Laushey's review, however, Citizens, like any utility, has the obligation to engage in prudent utility practices; Citizens cannot evade its primary and ultimate responsibility as the designer and builder of the dam by attempting to blame a third-party reviewer.

The evidence in the record compels the conclusion that Citizens, when it built Dam No. 11, did not include a proper cut-off wall or otherwise properly key the dam into the right embankment, and that it was imprudent of Citizens not to do so.

d. Inspection and Maintenance

105. In 1957, an engineer inspecting the No. 11 Dam site noted numerous "deficiencies," including slumping, "general instability and inconsistent section throughout entire dike," and "general scouring of the bank at the right abutment of the dam." The engineer further noted that "the dike appears to be quite porous and in a number of places is quite wet from water seepage." The engineer concluded his report by stating, "Whether the dam will survive many Springs, the writer will not hazard a guess." Exh. DPS-JRC-23.

106. In 1991, Citizens conducted an "Erosion and Bank Stabilization Study for Clyde River and Clyde Pond." The Study was prepared in July 1991, by Citizens witness Frank Thomas or under his supervision, in response to a request by the ANR that Citizens evaluate erosion sites. The Study was revised in December 1991, and supplemented in 1993. The Study was submitted to the ANR and to FERC as part of the federal relicensing proceedings for the Clyde River project. At the time the Study was prepared, Mr. Thomas was employed by Stetson-Harza, working as a consultant to Citizens. Thomas pf. reb. 9/23/96 at 15-16; exh. DPS-JRC-24.

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24. Citizens' Brief 3/14/97 at 13; exh. CUC-Cross-35 at 6.

107. The 1991 Study identified two erosion areas at the Dam No. 11 site. According to the Study, the first erosion area, "located at the northern side of the Diversion Dam, is an 80 to 90 foot high, severely steep, sandy slope (see figures 7 & 8). It extends down to the concrete abutment of the Diversion Dam." Exh. DPS-JRC-24 at 5.

108. The 1991 Study recommended that repairs be made at this first erosion area, stating that: "The no action alternative at this site is not a recommended option as the erosion site forms part of the Diversion Dam embankment and may be an archaeologically sensitive area. If the no action alternative is chosen, erosion at this site will continue and could lead to degradation of the dam embankment and cultural resources to the extent they exist." Exh. DPS-JRC-24 at 10.

109. Mr. Thomas explained that, when he wrote the Study, he anticipated that repair of the two erosion sites would become a requirement or condition of any new license granted to Citizens by FERC. In his opinion, there was no immediate, short-term need to implement the proposed stabilization measures, as the eroded areas posed no threat to the integrity of the dam. Thomas pf. reb. 9/23/96 at 18.

110. Over time, the two erosion sites at the Dam No. 11 site would be expected to expand. Tr. 11/26/96 at 35-36 (Thomas).

111. Erosion at the north end of the dam abutment, prior to the dam's failure, is clearly evident in photographs submitted by the parties. Exh. CUC-FWT-4; exh. DPS-Cross-48.

112. Citizens included proposed dollar amounts for stabilizing the north abutment and the bank at Dam No. 11 in preliminary budgets for 1992 and 1994. These proposed expenditures were removed from the final budgets as not being items needing immediate attention. Exh. DPS-JRC-25; tr. 12/19/96 at 155-156 (Perry).

113. Dam No. 11 was not a high hazard dam. Tr. 12/19/97 at 146 (Thomas).

114. Citizens does not employ an independent dam inspector to inspect Dam No. 11 or the Company's other non-high hazard dams. Instead, Citizens relied on the annual FERC inspections of the No. 11 dam. Such inspections were visual and may not have always included a trip across the spillway to look at the right abutment. Thomas/Perry pf. reb.

12/11/96 at 9; Steinhurst pf. 1/24/97 at 6; tr. 12/19/96 at 145-149 (Thomas/Perry); tr. 12/19/96 at 151 (Perry).

115. The purpose of the FERC dam inspection is primarily to ensure public safety. Inspections are done annually for high hazard dams and at least once every three years for lower hazard classifications. Exh. DPS-WS-13 at 8.

116. There are no set criteria by FERC for inspecting low hazard dams such as Dam No. 11. Tr. 12/19/96 at 146 (Thomas).

117. It is the responsibility of the FERC license holder to maintain its dams in good condition. Tr. 11/25/96 at 279 (Thomas); exh. DPS-WS-13 at 8.

118. Citizens personnel would visit the Dam No. 11 site to check gate settings, openings, and flow, and note whether anything was "different than before." Tr. 12/19/96 at 147 (Perry).

119. Prudent dam maintenance practice calls for removal of vegetation other than grass from all earthen areas of dams. This facilitates inspection of the dam. Tr. 12/19/96 at 67 (Cueto); tr. 11/26/96 at 50 (Thomas); exh. DPS-WS-13 at 7.

120. Locations where a concrete dam terminates in an earthen embankment, such as the right (north) abutment of Dam No. 11, are critical areas for dam inspections. These areas should be closely watched for seepage conditions, and monitored for signs of piping failure. These areas should be kept free of vegetation to facilitate these inspections. Tr. 12/19/96 at 66-67 (Cueto).

121. Keeping earthen areas of dams free of vegetation other than grass is also necessary to prevent root damage to the structure, including damaging conditions such as seepage or piping. Citizens witness Thomas agreed that it is not a good idea to allow tree growth at Dam No. 11 where the right abutment is entering the bank. Exh. DPS-WS-13 at 7; tr. 12/19/96 at 67 (Cueto); tr. 12/19/96 at 179 (Thomas).

122. On a routine basis, the VED clears vegetation from its dam sites. However, the VED did not keep the right earthen abutment of Dam No. 11 free from vegetation. Evergreen trees of approximately 20 feet in height were growing from the right earthen abutment. Tr. 12/19/96 at 67 (Cueto); tr. 12/19/96 at 150 (Perry); tr. 12/19/96 at 178-179 (Thomas); exh. DPS-Cross-48.

123. The Company's failure to remove vegetation from the right abutment inhibited inspection of the area. Tr. 12/19/96 at 66-69 (Cueto); tr. 12/19/96 at 180 (Thomas).

124. Citizens failed to maintain Dam No. 11 in a prudent manner. Findings 105-123, above.

Discussion re: Maintenance of the No. 11 Dam

Erosion has been identified as a problem at the right abutment of No. 11 Dam almost from the day the dam was constructed. Citizens failed to correct this longstanding problem, and failed to take reasonable steps to inspect and maintain this utility asset. These failings constitute imprudence.

Citizens knew, or should have known, that the area where the concrete dam entered the earthen embankment was a critical area for the integrity of the dam. Citizens knew of problem erosion at that right abutment. Citizens knew that prudent dam maintenance required clearing of vegetation from earthen areas. Yet, Citizens allowed vegetation to grow at the right abutment of Dam No. 11, impeding its ability to inspect the very area where inspection was needed to monitor for seepage and possible piping failure. This failure to take the prudent steps that a reasonable utility would take was compounded by Citizens' failure to employ, or contract with, a qualified dam inspector to inspect the facility.

As with the original construction of the dam, Citizens seeks to disclaim accountability for poor maintenance and inspection practices by pointing the finger at regulators who did not inform the utility that it was deficient in its practices.[25] In 1991, the Company's own report put it on notice of a significant erosion problem on the right embankment that "extends down to the concrete abutment of the Diversion Dam." That report concluded that action was necessary, yet Citizens chose to wait until instructed by FERC to remedy the problem. Citizens failed to take reasonable steps to monitor and correct known erosion problems at a critical area of the dam. In these circumstances, to delay action until commanded to act by regulators was imprudent.

e. Cause of the Breach

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25. Citizens' Brief 3/14/97 at 18-19.

125. The breach of Dam No. 11 on May 1, 1994, was caused by piping, by high water overtopping the abutment and eroding the bank, or a combination of both. Tr. 11/25/96 at 117 (Cueto); Thomas pf. reb. 9/23/96 at 17; exh. DPS-JRC-31 at 5; findings 98, 101, above.

126. At the time the No. 11 Dam failed, river flows were not at the extreme levels that normally accompany dam failure. Cueto pf. 8/23/96 at 19.

127. As noted in Finding 98 above, FERC staff, based on its inspection of the breached dam, concluded that the dam "was not tied into the abutment. This allowed the high flows to impinge on the abutment and develop into the erosional/failure process that caused the breach of the abutment." Exh. DPS-JRC-32 at 2.

128. As noted in Finding 99 above, Stone & Webster, based on its independent assessment of the breached dam, concluded that "the dam was not tied into bedrock nor is there a cutoff wall or upstream blanket. Hence there is a high hydraulic gradient present and the soil materials in the abutment have been eroded away leaving a gaping hole." Exh. DPS-JRC-31 at 3-4.

129. As noted in Finding 101 above, Stephen Knight, after inspecting the dam to determine the cause of the breach, concluded that "the washout was caused by an inadequate key of the concrete into the right abutment soil materials." Exh. DPS-Cross-43.

130. The breach would not have occurred but for Citizens' imprudence in the design and construction of the dam. Findings 104, 127-129, above

131. Citizens' imprudent maintenance practices may have contributed to the failure of Dam No. 11, for if the Company had properly inspected and maintained the dam, it may have taken corrective action that would have precluded the breach. Finding 124; Cueto pf. 8/23/96 at 19.

Discussion re: Cause of Breach

Although the exact cause of the breach is uncertain, the evidence in this proceeding demonstrates that the May 1, 1994, breach of Dam No. 11 was possible only due to Citizens' failure to properly design, construct, inspect and maintain Dam No. 11. Among the federal and third-party experts who reported on the breached dam, there is unanimity of opinion that the failure to properly key the dam into the right embankment caused the dam failure. Even

with this fundamental design flaw in the dam, Citizens may have been able to prevent the breach had the Company implemented reasonable inspection and maintenance practices.

Citizens contends that it cannot be held responsible for the dam's failure, because we do not know the precise cause of failure.[26] But what we do know is that Citizens imprudently designed and constructed the dam, and that the dam failed at the point of the design flaw; that Citizens imprudently maintained the dam, and that the dam failed at the location where maintenance was most glaringly neglected; that Citizens imprudently failed to inspect its own dam, and that the dam failed at the point where inspection was most needed, and also most impeded by Citizens' failed maintenance practices. We also know that the federal and the independent experts who inspected the breached dam are of the unanimous opinion that the breach resulted from Citizens' failure to properly key the dam into the earthen abutment. Based on the evidence in the record, the only reasonable conclusion is that Citizens' failure to follow prudent utility practice led directly to the May 1, 1994, breach of Dam No. 11. Consequently, I recommend that Citizens not be allowed recovery in rates of any of the costs occasioned by the dam's failure.

Citizens presents two additional reasons to support recovery of Dam No. 11 costs: first, that the dam would need to be decommissioned at some time in any event, so that these costs are "no different than the other decommissioning costs or retirement costs associated with other property that has been utilized for the benefit of ratepayers"; and second, that the State of Vermont opposed the reconstruction of the dam, so that it (the Department) should now be precluded from opposing recovery of the replacement power costs.[27] I do not agree with either. First, although the dam would likely be decommissioned at some point in the future, the timing and costs of such future decommissioning would be entirely speculative. There is no evidence in the record as to the reasonable costs that would have occurred in a planned decommissioning of the dam.[28]

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26. Citizens' Reply Brief 3/28/97 at 18-19.

27. Citizens' Brief 3/14/97 at 38-39.

28. For example, the Dam No. 11 costs that Citizens incurred included the costs of restoring approximately 10,000 cubic yards of gravel that had eroded as a result of the breach. This cost would not have been part of a normal decommissioning. Cueto pf. 8/23/96 at 20.

Second, the need to procure replacement power was occasioned by the breach of the dam which, in turn, was the result of the Company's imprudence. Once the dam had failed, the Agency of Natural Resources was not only entitled but obligated to seek compliance with appropriate environmental protections. The State cannot be forced into a position where it is precluded from arguing for environmental protection in order to have reasonable rates. Replacement power costs would not have been necessary in the first place but for the Company's imprudence. Ratepayers should not pay those costs.

Citizens' proposal to include in rate base $758,600 of 1996-1997 costs and $222,392 of CWIP should be rejected, test year plant in service should be reduced by $696,548, and replacement power costs of $189,000 should be disallowed.[29]

f. Customer Survey

132. On or about December, 1993, Citizens sent to its Vermont customers a survey, a copy of which was submitted as Exhibit DPS-JRC-2. At the time of the survey, the relicensing of Citizens' Clyde River projects, including the No. 11 Dam, was pending at FERC. The ANR participated in the FERC relicensing proceeding. Cueto pf. 8/23/96 at 2-3; exh. DPS-JRC-2.

133. Citizens stated that it was concerned that its customers' voices were not being heard in the debate over relicensing of its Clyde River hydro project, and that it viewed the direct mail effort as a way to receive input from its customers which had been missing from the debate. Thomas pf. reb. 9/23/96 at 19-20.

134. The survey stated that Citizens had proposed changes in operations and project enhancements to satisfy concerns of various agencies and interested parties. The survey further stated that government agencies have requested more stringent operation requirements that would result in the purchase of significant quantities of higher cost, fossil fuel-generated

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29. The parties presented considerable evidence and argument concerning the prudence of the actions that Citizens took after the failure of the No. 11 Dam. Because I have concluded that the failure was caused by the Company's imprudence in its construction and maintenance of the dam, and that consequently the costs that resulted from the failure should not be borne by ratepayers, there is no need to address the prudence of Citizens' post-failure actions for purposes of setting rates in this proceeding.

power. The flyer stated that Citizens' proposed operation and project enhancements would cost each ratepayer approximately $50.00 more per year while the operation and project enhancements requested by the agencies would cost each ratepayer almost $200 per year. The survey asked customers to check one of three blanks stating that they: (1) cannot support any increase in their utility bill; (2) can support a $40 to $50 increase for environmental enhancements; or (3) can support a $200 increase for environmental enhancements. Exh. DPS-JRC-2.

135. The dollar figures represented on the flyer were based upon a model that attempted to simulate the operation of the Clyde River hydroelectric project under various operating constraints, the costs of purchasing additional power, and the capital costs for specific capital improvements. In August of 1993, Citizens had received a letter from the ANR setting forth certain conditions which Citizens considered to be the Agency's position as to the environmental enhancements it desired in the relicensing proceeding. At the time of the survey, the Agency had not yet taken a position on the relicensing. Thomas pf. reb. 9/23/96 at 20; Cueto pf. 8/23/96 at 3; tr. 11/25/96 at 225-231 (Thomas); tr. 11/26/96 at 26-27 (Thomas).

136. Citizens ran the simulation using a scenario based on operating conditions which were outlined in the ANR's August 1993 letter, and the model indicated that Citizens would need to purchase additional power. Citizens contends that the $200 figure included on the customer survey reflects a rough approximation of the dollar-per-ratepayer effect of the Agency's proposal. Thomas pf. reb. 9/23/96 at 20-21; tr. 11/25/96 at 225-231.

137. Citizens performed a similar model run using Citizens' proposed environmental enhancements and operation scenario. The $40 to $50 amount included on the customer survey reflects the results of that run. Thomas pf. reb. 9/23/96 at 21.

138. Citizens claimed that the purpose of the customer survey was not to educate the ratepayers as to the Parties' positions, but rather solely to get some input from the ratepayers as to what level of rate increase, if any, they would be willing to bear to support environmental enhancements on the Clyde. Citizens acknowledged that the purpose of the mailing was to convey customer concerns to the ANR, with the hope that the ANR would take those concerns into account. Thomas pf. reb. 9/23/96 at 22; tr. 11/25/96 at 196 (Thomas).

139. The survey was printed on a postcard, which was pre-addressed to be returned to Chuck Clark, then Secretary of the ANR. Exh. DPS-JRC-2.

140. Citizens has included the costs associated with the mailing in this case. Those costs include $2,714 of postage that was charged to CWIP and, eventually, to plant. Exh. DPS-REK-2; exh. DPS-REK-3.

Discussion re: Customer Survey

The Department contends that the customer survey constituted political advertising within the meaning of 30 V.S.A. § 2801, which prohibits an electric utility from including in rates the costs of political activity or political advertising for the purpose of, among other things, influencing any executive or administrative decision.[30] Section 2801 defines "advertising" as "the commercial use of *any media* including, but not limited to, newspaper and *all other forms of print*, radio and television, in order to transmit a message to a substantial number of members of the public or customers of a utility." 30 V.S.A. § 2801(c)(3) (emphasis added). I conclude that Citizens' customer survey falls within this definition. This mass mailing constituted the commercial use of "any media," and was an obvious attempt to influence public opinion in the hope that the public would then try to influence the ANR's decision. The customer survey may have been somewhat more subtle than a direct mailing warning ratepayers that their bills would increase by $200 unless they wrote to the Secretary of the ANR to protest, but in intent and effect there is no meaningful difference. Thus, I agree with the Department that Citizens' customer survey constituted political advertising within the meaning of Section 2801, and that therefore its costs cannot by law be included in rates.

Even if disallowance of the survey costs were not mandated by statute, I would still recommend that cost recovery be denied. This communication provided no benefit to the Company's ratepayers, and in fact was possibly detrimental to their interests in that it contained misleading information by attributing a position to the ANR when in fact that Agency had not yet determined its position.

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30. DPS Brief 3/14/97 at 147-148.

Consequently, the $2,714 in identified costs of the survey should be removed from rate base. The Department argues that other, unknown costs were surely incurred, and recommends that they be estimated as four times the known costs, or $10,855.[31] This additional disallowance, although merited in principle, is not supported by evidence as to amount, and thus is not appropriate.

B. Cost of Service

1. Weather Normalization

141. To determine the revenues that it would receive based on current rates, Citizens used actual billing determinants from the test year for each customer class, and applied them to rates currently in effect. Kiener pf. 4/5/96 at 21.

142. In their testimony, Department witnesses Schultz and DeRonne recommended that revenues from residential sales be weather normalized because the test year was not representative of typical weather. The Department witnesses compared test year (1995) residential sales per customer to those for 1993, 1994, and 1996 year to date, but did not present a specific proposal for how the test year sales should be weather normalized. Schultz/DeRonne pf. 8/23/96 at 31-35.

143. Citizens opposed a weather normalization adjustment on the grounds that it would not be known and measurable, that such an adjustment is not normal ratemaking practice in Vermont, and that if adopted a weather normalization adjustment would need to be based on sales comparisons over a much longer period of time than that used by the Department's witnesses. Kiener pf. reb. 9/23/96 at 7.

Discussion re: Weather Normalization

The Department did not address the weather normalization adjustment in either its direct or reply brief. Thus, it appears that the Department is not advocating for such an adjustment. Even if it were, the Board has previously rejected weather normalization adjustments where parties did not present sufficient evidence that the test year was

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31. DPS Brief 3/14/97 at 147.

significantly different from the average. *In re CVPS*, Docket No. 5372, Order of 5/31/90 at 17. I would conclude the same here: the Department presented insufficient evidence to support the adjustment.

A weather normalization adjustment is not appropriate in this rate proceeding, and I recommend that the Board not include this adjustment.

2. Employee Discounts

144. In its original filing, Citizens reduced residential revenues by $17,632 to reflect a 25 percent discount that it provides to its union employees. Schultz/DeRonne pf. 8/23/96 at 35.

145. The union contract that requires the employee discount expired on December 1, 1996. Tr. 11/14/96 at 384 (Kiener); tr. 12/3/96 at 16 (Kiener).

146. Citizens reached an agreement with the Department to remove the employee discount from its rate filing. The Company removed the employee discount revenue adjustment in its rebuttal filing, but at the same time increased payroll costs by $17,632 and payroll taxes by $896. This proposed increase in payroll costs is not associated with an actual increase in wages. Kiener pf. reb. 9/23/96 at 7-8; tr. 11/14/96 at 382-385.

147. The Department recommended that these proposed increases in payroll costs and payroll taxes be denied. Schultz/DeRonne pf. reb. 12/11/96 at 16.

Discussion re: Employee Discounts

Citizens has now agreed to remove the employee discount entirely from cost of service, although the Company has not conceded that its proposed adjustments were inappropriate.[32] In order to provide guidance for Citizens in any future rate proceedings, I recommend that the Board place the Company on notice that it will not be allowed to recover the costs of employee discounts, because such discounts send inappropriate pricing signals to users. *See also In re New England Telephone*, Docket Nos. 5700/5702, Order of 10/5/94 at 49-51 (Board disallowed New England Telephone and Telegraph Company employee concession service that

32. Citizens' Reply Brief 3/28/97 at 49-50.

is similar to Citizens' employee discount, concluding that it did not provide a direct benefit to ratepayers).

Because the parties have agreed on this issue, because employee discounts are inappropriate as a matter of pricing policy, and because Citizens' previously proposed offsetting increase to payroll costs and payroll taxes was not known and measurable, I recommend that pro forma revenues not be reduced by the employee discounts, and that there be no offsetting adjustment to payroll costs or payroll taxes.

3. Jay Peak Snowmaking Revenues

148. In its initial filing, Citizens' calculation of test year industrial revenues failed to include revenues received under the Jay Peak snowmaking contract. The Company's power costs in that filing did include $114,135 of projected costs for providing service under the Jay Peak contract. Those projected costs were based on the rate charged by Hydro-Quebec at the end of the test year. Schultz/DeRonne pf. 8/23/96 at 36-37; exh. CUC-SJL-1, line 15.

149. The snowmaking contract provides that Jay Peak is to be charged in accordance with Hydro-Quebec's annual quoted base rate, plus a wheeling and administrative fee. The Hydro-Quebec base rate increased before the end of the 1995 test year. The revenues from the Jay Peak snowmaking contract should be calculated based on the Hydro-Quebec rate that was in effect at the end of the test year, which is more likely to reflect the costs during the rate period. This results in an increase to industrial revenues of $191,838. Schultz/DeRonne pf. reb. 12/11/96 at 14-15; exh. DPS-HWS-1-Rebuttal sch. C-3.

Discussion re: Jay Peak Snowmaking Revenues

Citizens has agreed to the Department's proposed adjustment of $191,838 for Jay Peak Snowmaking Revenues.[33] That adjustment correctly matches the projected revenues with the projected costs of the snowmaking contract, and represents the most recent relevant information. Consequently, I recommend that the Board adopt the Department's proposed $191,838 adjustment.

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33. Citizens' Brief 3/14/97 at 121.

4. Correction to Miscellaneous Revenues

150. Citizens' initial filing included several errors in the revenue calculations. Findings 151-153, below.

151. To correct data entry errors, pro forma primary billing demand revenues needed to be increased by $4,732, and the pro forma primary discount needed to be reduced by $1,803. Kiener pf. 9/23/96 at 8; Schultz/DeRonne pf. 8/23/96 at 39-40.

152. Revenues from the former Franklin Electric customers needed to be adjusted to reflect the May 1995 and 1996 rate increases which were approved as part of Citizens' acquisition of the Franklin service territory. Kiener pf. reb. 12/11/96 at 2.

153. The number of winter non-demand commercial customers needed to be corrected from 5,540 to 11,063, which results in an increase in commercial revenues of $63,514. Kiener pf. reb. 12/11/96 at 2.

Discussion re: Correction to Miscellaneous Revenues

There is no dispute among the parties about these corrections. I conclude that these corrections are all appropriate and should be adopted. However, further review of the Company's schedules reveals that the Company utilized incorrect rates in calculating the correction for revenues from former Franklin Electric customers. In particular, Citizens appears to have applied the incorrect residential rates for the peak and off-peak periods. This mistake is apparent by reference to the Company's approved tariff on file with the Board. Pursuant to 3 V.S.A. § 810(4), I hereby take official notice of the Company's current approved tariff.[34] I recommend that the Company be required to correct this calculation in its compliance filing in this proceeding.

5. Payroll Expense and Payroll Taxes

154. The Company's original filing reflected payroll expenses for 51 full-time employees and several part-time employees. Schultz/DeRonne pf. 8/23/96 at 41-43; Schultz/DeRonne pf. reb. 12/11/96 at 18.

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34. Any objection to my, and the Board, taking official notice of the Company's current Vermont tariff must be filed by May 13, 1997.

155. In 1995, VED had 50 full-time employees from January through April, 49 full-time employees from May through July, 50 in August, and then 49 through the end of the year. VED continued to have 49 full-time employees through at least June 1996. Schultz/DeRonne pf. 8/23/96 at 43; Schultz/DeRonne pf. reb. 12/11/96 at 18; tr. 11/13/96 at 236 (Schultz).

156. Payroll expense should be based on 49 full-time employees, as that was the number of full-time employees at the end of the test year and through the most recent month for which Citizens presented information. Based on 49 rather than 51 full-time employees, the Company's pro forma payroll expense should be reduced by $34,867. Payroll tax expense should be reduced by $2,667 as a corresponding adjustment to the reduction in payroll expenses, at the payroll tax rate of 7.65 percent. Schultz/DeRonne pf. 8/23/96 at 41, 44; exh. DPS-HWS-1, schs. C-5 and C-6.

Discussion re: Payroll Expense and Payroll Taxes

Citizens now agrees with the Department that, based on the evidence that is in the record, the Board should set payroll expense and taxes based on 49 rather than 51 full-time employees.[35] I agree with the parties that payroll expense and payroll taxes should be based on 49 full-time employees, and thus I recommend that the Board adopt the Department's proposed adjustments of $34,867 for payroll expense and $2,667 for payroll taxes.

6. Employee Benefits

157. The Company allocates 61.52 percent of its employee benefit costs, other than for the Incentive Deferred Compensation Plan, to expense, with the remaining 38.48 percent charged to construction. Exh. CUC-KMK-6, sch. C-2 at 6; exh. DPS-HWS-1, sch. C-7 at 1.

a. Medical Costs

158. In its initial cost of service filing, Citizens included $258,705 for projected medical and dental costs. The Company's actual test year costs were $208,278. Exh. DPS-HWS-1, sch. C-7 at 2; Mason pf. reb. 9/23/96 at 7-8.

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35. Citizens' Brief 3/14/97 at 122-123, and at Att. 1, p. 3, col. 3, line 15 and Att. 1, p. 4, item Y.

159. The Department proposed four adjustments to Citizens' proposed pro forma medical and dental costs: (1) revising the number of employees used in the calculation; (2) reducing the per employee fixed costs; (3) reducing the estimated per employee claims rate; and (4) increasing the employee contribution. These four adjustments would result in a reduction in medical and dental costs of $130,594, and a pro forma cost of $128,112. Schultz/DeRonne pf. 8/23/96 at 44; exh. DPS-HWS-1, sch. C-7 at 2.

160. Citizens' initial calculation of medical costs was based on an estimated 57 employees, in order to reflect the number of medical plan participants over the course of the year including, apparently, employee turnover. The actual number of full-time VED employees at the end of the test year was 49. This number remained at 49 for every subsequent month through at least June, 1996. The Department contends that medical costs should be calculated on the basis of 49 full-time employees, plus the one part-time employee who receives medical benefits, for a total employee level of 50. Schultz/DeRonne pf. 8/23/96 at 45; Mason pf. 9/23/96 at 6-7; exh. DPS-HWS-2 at 53-54.

161. Citizens' initial calculation of medical costs included projected changes in three per employee fixed cost components: an increase of $45.28 in "stop loss" fixed cost from $355.20 to $400.48; a decrease of $16.12 in consulting fixed cost from $51.12 to $35.00; and an increase of $23.06 in "cost care" fixed cost from $27.72 to $50.78. In total, Citizens' use of the projected costs results in an increased in fixed costs of $52.22 per employee ($45.28 - $16.12 + $23.06 = $52.22). Schultz/DeRonne pf. 8/23/96 at 45; exh. DPS-HWS-2 at 52.

162. The Company explained that it projected an increase in the stop loss fixed fee based on past experience, and an increase for the cost care fixed fee based on "best estimates" for renegotiated coverage. Mason pf. reb. 9/23/96 at 6. The Company did not explain how it projected its proposed reduction in the consulting fixed cost fee.

163. Citizens' initial calculation of medical costs was based on the average claims cost per employee for all of Citizens, rather than basing the calculation on the VED-specific claims cost. The Department contends that the actual VED claims rate should be used. Schultz/DeRonne pf. 8/23/96 at 46-47; Mason pf. reb. 9/23/96 at 7.

164. Citizens' corporate medical plan covers a pool of 4000 employees, while the VED consists of approximately 50 employees. Citizens contends that the rates it must pay for

medical coverage for VED are lower as part of a 4000-employee pool than they would be as a stand-alone 50-employee pool. Mason pf. reb. 9/23/96 at 7.

165. Employee contribution rates increased from 15.5 to 263 percent, depending on the medical plan, from 1995 to 1996. To reflect this increase, the Department recommends including a 25 percent increase in employee contributions in the calculation of medical expense, which results in a $9,855 reduction in costs (25% of the $39,420 in test year employee contributions). Schultz/DeRonne pf. 8/23/96 at 46-47; exh. DPS-HWS-2 at 55-57; exh. DPS-HWS-1, sch. C-7 at 2.

166. In its rebuttal filings, the Company revised its pro forma medical costs to $208,278, which was the actual test year cost. Exh. CUC-KMK-2R, sch. C-2 at 6; exh. CUC-KMK-6, sch. C-2 at 6.

Discussion re: Medical Costs

Citizens has now agreed that 50 is the appropriate number of employees to include in the calculation of medical and dental costs (49 full-time and one part-time), in order to be consistent with the payroll expense adjustment discussed elsewhere in these Findings.[36] I agree that the calculation should be based on the actual number of employees—50—who are expected to receive these benefits.

I agree with the Department that the medical costs calculation should not reflect Citizens' projected changes in fixed cost fees. The Company has not demonstrated that the projections are known and measurable, and thus they should not be included in rates. Citizens contends that these projected fee increases are appropriate, because "they are obviously subject to inflationary pressure."[37] However, a cost-of-service adjustment for projected inflation would not be appropriate because it would not be a known and measurable change from the test year, and thus Citizens' argument that medical fixed cost fees should be adjusted to reflect inflationary pressure should likewise be rejected. *In re CVPS*, Docket No. 5030, Order of 2/18/86 at 71 (rejecting proposed adjustment for projected inflation because it was not sufficiently known).

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36. Citizens' Reply Brief 3/28/97 at 60.
37. Citizens' Reply Brief 3/28/97 at 60.

I agree with Citizens that medical costs should be based on Citizens-wide, not VED-specific, experience in claims cost. Although Citizens did not present a specific study demonstrating that it was less costly to provide medical benefits to VED employees as part of a corporate-wide pool rather than as a stand-alone pool, it should not be required to present such a study absent some credible evidence that its pooled costs are excessive. Without some evidence to suggest that the VED is subsidizing medical costs for the remainder of the corporation (i.e., without evidence that VED medical costs would be lower on a stand-alone basis than as part of a corporate pool), it is reasonable to assume that VED is receiving the benefit of lower pooled costs. Consequently, I recommend that the Board reject the Department's proposal to calculate medical costs based on VED-specific claims cost experience.

The Department's final proposed adjustment to medical costs is to include a 25 percent increase in employee contributions. Citizens has agreed to this adjustment.[38] I conclude that this adjustment is appropriate as a known and measurable change.

The record does not contain a calculation of the appropriate pro forma cost to reflect the adjustments that I recommend, nor does there appear to be evidence sufficient to perform the calculation. Because both the Company's original pro forma request of $258,705 and the Department's proposed pro forma cost of $128,112 are based on inappropriate assumptions, I conclude that the most reasonable cost in the record is that which the Company included in its rebuttal filings, the test year cost of $208,278. Thus, I recommend that there be no adjustment from the test year medical costs, which represents a reduction of $50,427 to the pro forma costs in Citizens' original filing.

b. Pension Cost

167. In its initial filing, Citizens projected its pro forma pension cost by applying a 3.412 percent pension cost factor to a total pro forma base payroll of $2,207,558, resulting in a projected pension cost of $75,322 ($2,207,558 x 3.412%). Schultz/DeRonne pf. 8/23/96 at 48.

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38. Citizens' Reply Brief 3/28/97 at 60.

168. The Department has proposed a $9,945 reduction to pension cost to reflect three adjustments. The first adjustment involves correcting for Citizens' inadvertent inclusion of overtime in the base payroll figure that was used to calculate pensions. This reduces base payroll from $2,207,558 to $2,042,522. Citizens agrees that overtime should be removed from base payroll for the pension calculation. Schultz/DeRonne pf. 8/23/96 at 47-48; exh. DPS-HWS-2 at 58; Mason pf. reb. 9/23/96 at 8; exh. DPS-HWS-1, sch. C-7 at 3.

169. The second adjustment proposed by the Department is to correct for an addition error in the Company's payroll expense calculation schedule. This correction reduces the $2,042,522 figure to $1,990,082. Schultz/DeRonne pf. 8/23/96 at 48; exh. DPS-HWS-1, sch. C-7 at 3.

170. The Department's third adjustment to pension cost is to remove from base payroll the payroll costs associated with part-time employees who do not receive benefits. This requires an additional $73,997 reduction in base payroll, with a resulting base payroll figure of $1,916,085. Citizens agrees that non-participating part-time employees should be excluded from base payroll for the pension calculation. Schultz/DeRonne pf. 8/23/96 at 48; Mason pf. reb. 9/23/96 at 8; exh. DPS-HWS-1, sch. C-7 at 3.

171. Applying the Company's pension cost factor of 3.412 percent to the corrected base payroll figure of $1,916,085 results in an adjusted pro forma pension cost of $65,377. This is $9,945 less than in the Company's initial filing. Schultz/DeRonne pf. 8/23/96 at 48-49; exh. DPS-HWS-1, sch. C-7 at 3.

172. Citizens contends that the Department's proposed adjustment to pension cost is too large. According to Company witness Mason, "Comparing the payroll basis upon which DPS' adjustment is based with 1995 levels, it is clear that DPS's adjustment is overstated. The 1995 payroll basis of approximately the same amount of $2.0M results in a pension expense of $72,648 (or 3.6 of payroll). This is not proportionate to the payroll basis of $1.92M and corresponding pension expense of $65,377 (or 3.3 of payroll)." Mason pf. 9/23/96 at 8.

173. In its rebuttal testimony, the Company reduced its pro forma pension cost request to the actual recorded test year level of $72,648. Mason pf. reb. 9/23/96 at 8; exh. CUC-RJM-1.

174. Citizens' proposed adjustment to payroll costs reduces payroll expense to below the actual test year level. Exh. CUC-KMK-6, sch. C-2 at 3.

Discussion re: Pension Cost

The Department has proposed three adjustments to the Company's pro forma pension cost. The first two adjustments are appropriate in that they remove from the base payroll figure, which is used to project pension cost, payroll costs that do not contribute to pension costs. Citizens agrees with these two adjustments.

The Department's third adjustment is necessary to correct an error in addition in the Company's payroll schedule. The Company has not presented any evidence to contest this third adjustment, nor did it contest it in its briefs.

The only dispute between the parties in the calculation of pension cost is Citizens' contention that, despite its concurrence with the merits of the Department's adjustments to the original filing, the end result of applying the Department's adjustments is an inappropriately small projected cost. Other than stating that the cost is too low, however, Citizens did not present any evidence to demonstrate *why* it is too low. Rather than accept the Department's corrected version of the Company's original calculation, Citizens modified its position in rebuttal testimony to request that pension cost be set at the test year level. However, the Company's own position is that test year payroll costs should be reduced to arrive at pro forma payroll.[39]

Given the choice between the Company's proposed use of test year pension costs—which were associated with payroll costs in excess of those which are appropriate in setting rates in this proceeding—and the Department's corrections to the Company's original pension calculation, the Department's proposal is clearly the more appropriate. The Department's proposal uses the Company's own methodology, adjusted for corrections which the Company does not contest. Citizens has presented no basis for any other calculation. I recommend that the Board accept the Department's proposed adjustment.

c. Non-Pension Post-Retirement Benefits

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39. Indeed, as noted above in Part III(B)(5) of these Findings, the Company has now agreed entirely to the Department's proposed pro forma payroll.

175. Citizens' original filing contained $85,747 for non-pension post-retirement benefit expense. This amount included $74,011 of projected expenses based on the full FAS 106 accrual methodology, and $11,736 associated with a proposed five-year amortization of $58,680 that Citizens had deferred as of January 1, 1995. Schultz/DeRonne pf. 8/23/96 at 49, 52.

176. The $74,011 of projected expense consisted of: (1) VED retiree pay-as-you-go costs of $8,947; (2) a VED retiree FAS 106 accrual of $60,993; (3) consulting fees of $13 allocated from the SAO; (4) SAO allocation of pay-as-you-go costs of $519; and (5) SAO allocation of a FAS 106 accrual of $3,539. This results in a cost of $69,940 for VED operations, $13 for consulting fees, and $4,058 allocated for SAO operations. Schultz/DeRonne pf. 8/23/96 at 49.

177. Citizens' filing was based on a zero capitalization rate on its non-pension post-retirement benefits; i.e., the full cost of the benefits was expensed. Schultz/DeRonne pf. 8/23/96 at 55, 57.

178. The Department recommended that Citizens recalculate its non-pension post-retirement benefit cost to reflect the most recent actuarial study results; Citizens agreed to make this revision. Citizens also revised its pro forma request by allocating 38.48 percent of the costs to capital, again consistent with the Department's recommendation. Citizens' revised request is $44,118; excluding the amortization of the deferral, Citizens' revised pro forma expense is $36,898. The Department agrees that $36,898 is the appropriate pro forma figure for the current expense portion of non-pension post-retirement benefits. Schultz/DeRonne pf. 8/23/96 at 51, 58; Mason pf. reb. 9/23/96 at 11; Schultz/DeRonne pf. reb. 12/11/96 at 20; exh. CUC-RJM-1; exh. DPS-HWS-1-Rebuttal, sch. C-7 at 4.

179. The only remaining disagreement between the Company and the Department regarding non-pension post-retirement benefits is whether the five-year amortization should be included. If the amortization is excluded, the pro forma expense should be $36,898, which represents a reduction of $48,849 from Citizens' original filing. Schultz/DeRonne pf. reb. 12/11/96 at 20; exh. DPS-HWS-1-Rebuttal, sch. C-4\7 at 4.

180. The $58,680 of non-pension post-retirement benefit costs that Citizens had deferred as of January 1, 1995, was comprised of $15,591 deferred during 1993 and $43,089 deferred during 1994. Schultz/DeRonne pf. 8/23/96 at 52.

181. In its rebuttal testimony, Citizens reduced its requested expense associated with the deferral in order to reflect that a portion of the costs should be capitalized. Citizens effectively reduced its annual request of $11,736 by the 38.48% capitalization factor to $7,220. Mason pf. reb. 9/23/96 at 11; exh. CUC-RJM-1.

182. During 1993, Citizens deferred not only the portion of post-retirement benefit costs associated with the adoption of the FAS 106 accrual methodology, but also deferred the majority of the pay-as-you-go costs that would have been included in rates resulting from the prior rate case. Schultz/DeRonne pf. reb. 12/11/96 at 21-22.

183. During 1994, Citizens' total FAS 106 cost was $49,678. The rate increase from Docket No. 5656 that went into effect during early February 1994 included $16,108 for FAS 106 costs. During 1994, Citizens expensed only $7,162 of its total FAS 106 costs and deferred the remaining $42,516, to which was added $573 in SAO-allocated costs to result in the total $43,089 that was deferred in 1994. The amount deferred during 1994 would include amounts that were collected by Citizens in rates during that period. Schultz/DeRonne pf. reb. 12/11/96 at 21-23; Docket No. 5656, Order of 1/26/94 at 110.

Discussion re: Non-Pension Post-Retirement Benefit Costs

The parties have agreed that the correct pro forma amount for current expense is $36,898. The record supports this amount, and I recommend that the Board accept it.

The parties disagree with respect to recovery of the amortization of 1993 and 1994 costs that Citizens had deferred. Part of their disagreement focused on whether Citizens received Board approval in Docket No. 5656 to defer these costs.[40] Apparently, accrual accounting of these costs was reflected in the Company's filing in that docket, and thus reflected in the rates which the Board approved, although the Board's Order in Docket No. 5656 does not specifically address the appropriate accounting treatment of these costs.

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40. Schultz/DeRonne pf. 8/23/96 at 52-53; Mason pf. rebuttal 9/23/96 at 9-10.

I conclude that the Board's treatment of the accrual accounting in Docket No. 5656 is not determinative of how the costs should be treated in this docket, for two reasons. First, whether or not the Board specifically approved the accrual accounting in Docket No. 5656, that alone would not determine the appropriate treatment of the deferred costs in the present proceeding.

Second, there is an independent reason that precludes Citizens' proposed amortization of the deferred costs. Citizens has conceded that the deferred amount of $58,680 includes costs that have already been recovered in rates and which should not be recovered again through the deferral.[41] Citizens proposes to avoid the double-recovery of these costs by providing an accounting of the unrecovered balance as part of its compliance filing.[42] This procedure is inappropriate. As discussed in Part III(A)(8)(c) above with respect to the target adjustment for 1993 and 1994 SAO overhead allocations, it was incumbent upon Citizens to include in its evidentiary submissions an accurate accounting of the costs which it proposes to recover from Vermont ratepayers. This it has not done for the deferred non-pension post-retirement benefits, and it cannot cure this evidentiary deficiency through a compliance filing. I recommend that the Board reject Citizens' proposed recovery of the amortization of the 1993 and 1994 deferred costs.

Consequently, the Company's originally filed pro forma expense for non-pension post-retirement benefits should be reduced by $48,849.

d. Incentive Deferred Compensation Plan

184. Citizens provides an Incentive Deferred Compensation Plan ("IDCP") to certain of its employees. During the test year, all of Citizens' exempt (non-union) employees were eligible to receive IDCP awards. Schultz/DeRonne pf. 8/23/96 at 59.

185. IDCP awards are based on three criteria: (1) financial performance; (2) customer satisfaction; and (3) employee satisfaction. The financial goals constitute 50 percent of the award determinants. Customer service and employee satisfaction are equally weighted,

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41. Citizens' Reply Brief 3/28/97 at 57-58.
42. *Id*. at 58.

each counting as 25 percent of the plan's determinants. Mason pf. reb. 9/23/96 at 16; Schultz/DeRonne pf. 8/23/96 at 60.

186. Citizens asserts that IDCP provides the following benefits to ratepayers: "(1) an employee whose compensation is directly linked to customer satisfaction; (2) a compensation structure that links pay to performance (i.e., incentive portion is at risk and must be "re-earned" each year); and (3) a business culture that explicitly makes customer focus a critical value of work practice." Mason pf. reb. 9/23/96 at 17.

187. Each employee participating in the IDCP plan is required to fill out worksheets stating how he or she contributed during the year to each of the three plan determinants. For the most part, these employee statements of their contributions toward the three IDCP goals described achievements that would be expected to fall within normal job responsibilities. Schultz/DeRonne pf. 8/23/96 at 60-61.

188. Citizens contends that employee contributions resulting from IDCP reflect practices and values that are exceptional in the workplace. In addition, the Company believes that the Department has ignored "the linkage between the prevalence of incentive-based compensation and well run companies. Well run companies experience reduced costs because their employees are customer focused, and their compensation structure rewards as well as recognizes that behavior." Mason pf. reb. 9/23/96 at 12.

189. During 1994, 1995, and 1996, VED's union employees received pay increases of 4.00, 3.80 and 3.75 percent, respectively. VED's exempt employees received a 4.95 percent increase in 1994 and a 7.39 percent wage increase during 1995, effective August 31, 1995. The 1995 increase for exempt employees was for a 19-month period, resulting in an effective annual wage increase of 4.67 percent. Although the 4.67 percent figure has not been adjusted to reflect the time value of money, such an adjustment would be only for a seven-month period and thus would be minimal. Even with the time adjustment, the effective increase in wages for exempt employees would be significantly greater than the 3.80 percent union wage increase for the same period. Schultz/DeRonne pf. 8/23/96 at 62; Schultz/DeRonne pf. reb. 12/11/96 at 25.

190. According to customer surveys that Citizens has conducted, customer satisfaction with the VED decreased from a rating of 8.3 (on a scale of 10) in 1994 to 7.7 in 1995. The

percentage of Vermont customers surveyed who ranked Citizens as "The Best" dropped from 12 percent in 1994 to 7 percent in 1995. Schultz/DeRonne pf. 8/23/96 at 64; exh. DPS-HWS-2 at 77-92.

191. Citizens canceled its 1996 customer and employee surveys for the VED operations. As a result, two of the three plan determinants, customer satisfaction and employee satisfaction, were not formally evaluated during 1996 for VED. Schultz/DeRonne pf. reb. 12/11/96 at 25.

192. In its rebuttal filings, Citizens reduced its IDCP expense request to $47,338 to reflect the actual test year level for its VED operations, and then reduced the test year amount by an addition 50 percent to split the costs between shareholders and ratepayers. However, the rebuttal filing does not allocate any of the revised requested costs to capital, resulting in a revised IDCP expense request of $23,669. Schultz/DeRonne pf. reb. 12/11/96 at 26; Mason pf. reb. 9/23/96 at 17; exh. CUC-KMK-2R, sch. C-2 at 6.

193. Citizens indicated that the revised request was not offset by the 38.48 percent capitalization factor because none of the IDCP cost is capitalized. The Company capitalizes a portion of exempt employees' salaries and wages. Citizens considers incentive compensation to be part of the exempt employees' salaries and wages that are at risk. Citizens Witness Mason stated that, in his opinion, it would be acceptable to capitalize a portion of IDCP costs, consistent with the treatment of payroll. Schultz/DeRonne pf. reb. 12/11/96 at 26; tr. 11/26/96 at 210-212 (Mason).

194. Disallowance of IDCP costs in their entirety would result in a $35,135 reduction to Citizens' original IDCP expense request, and a $23,669 reduction to Citizens' revised IDCP expense request. Schultz/DeRonne pf. 8/23/96 at 65; Schultz/DeRonne pf. reb. 12/11/96 at 27.

Discussion re: Incentive Deferred Compensation Plan

The Board has previously allowed part of the cost of a utility's IDCP plan to be included in rates. Docket No. 5428, Order of 1/4/91 at 60; Docket No. 5701/5724, Order of 10/31/94 at 44. Based on the evidence in this proceeding, the Board should not follow that practice here.

Citizens does not dispute that to be allowed to recover IDCP costs in rates, an IDCP award must represent part of the employee's salary being placed at risk, rather than being a *de facto* bonus in addition to ordinary salary increases.[43] While Citizens correctly notes that the percentage increases in wages for union and for exempt employees cannot be strictly compared without taking into account overtime, promotions, non-wage benefits and other concessions,[44] it is Citizens that has best access to the information necessary to present an accurate comparison. The Department has presented more than sufficient evidence to refute the Company's unsupported claim that IDCP has placed more of the employee's pay at risk.

Furthermore, Citizens has not demonstrated any benefit to ratepayers from IDCP. Not only do IDCP payments appear to be based on normal job performance, but even by Citizens' own measurement they are failing to produce any apparent benefit to ratepayers. According to Citizens' 1995 customer survey, customer satisfaction with the VED decreased significantly over the previous year. For 1996, Citizens canceled its evaluation method for two of the three IDCP criteria, including customer satisfaction.

Citizens' IDCP awards should be excluded from rates. The record supports neither Citizens' contention that the program is placing a greater portion of exempt employees' salaries at risk nor Citizens' claim that Vermont customers are seeing any benefit from IDCP.

Should the Board conclude in the prudence docket that Citizens' Vermont operation suffers from serious management deficiencies, this would provide an additional reason to deny rate recovery for any portion of the IDCP cost.

In summary, I recommend that the Board fully exclude IDCP costs from rates in this proceeding. If the Board should disagree with this recommendation and allow some IDCP costs in rates, the costs should be subject to the Company's capitalization factor, as are all other payroll-related costs.[45]

e. 401(K) Costs

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43. Mason pf. reb. 9/23/96 at 14; Citizens' Brief 3/14/97 at 138.
44. Citizens' Brief 3/14/97 at 135.
45. In its Reply Brief of 3/28/97 (at 58-59), Citizens conceded that 38.48 percent of IDCP costs should be capitalized.

195. In its rebuttal filing, Citizens included $58,673 of projected 401(K) costs, which would result in $36,096 in test year expense once Citizens' 61.52 percent expense factor is applied ($58,673 x 61.52%). Exh. CUC-KMK-2R, sch. C-2, page 6, lines 5 and 7.

196. The Department claims that Citizens' original filing did not include 401(K) costs, and that Citizens added the 401(K) costs in its rebuttal filing without any comment in its written rebuttal testimony. Schultz/DeRonne pf. reb. 12/11/96 at 30.

197. The Department also contends the 401(K) costs are for an additional retirement plan which is excessive and not necessary for the provision of electric service. Schultz/DeRonne pf. reb. 12/11/96 at 30.

Discussion re: 401(K) Costs

The Department argues that Citizens is precluded, under 30 V.S.A. § 225(a) and Board Rule 2.204(G)(2), from adding the 401(k) costs for the first time in its rebuttal filing.[46]

In its reply brief, Citizens disputes the Department's contention that the 401(K) costs did not include 401(K) costs in its original filing. Instead, Citizens claims that the costs were included in the initial filing, that the accompanying workpapers showed this, and that the reason the costs were not explicitly shown on the initial schedules is that Citizens was not proposing any adjustment to the test year costs.[47] Citizens also disputes the Department's claim that 401(K) costs are excessive.[48]

The Company's workpapers showing the inclusion of 401(K) costs in the original filing do not appear to be in the evidentiary record, and the Company has not cited to the record to support its position regarding what those workpapers show. Nonetheless, I agree with the Company that it is appropriate to include the 401(K) costs in cost of service.

First, neither Citizens nor the Department has provided specific information to demonstrate whether or not the original filing included 401(K) costs. I am reluctant to conclude, without any supporting documentation, that the 401(K) costs were not included in the initial filing.

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46. DPS Brief 3/14/97 at 123.
47. Citizens' Reply Brief 3/28/97 at 61.
48. *Id.*

Second, even if those costs were omitted in the original filing, I disagree with the Department's argument that the Company could not correct this omission in a subsequent filing. The Department contends that addition of the 401(K) costs in rebuttal filings, if not included in the original filing, constitutes impermissible updating under 30 V.S.A. § 225(a) and Board Rule 2.204(G)(2). Those provisions, however, are best interpreted to apply only to utility-initiated rate proceedings, and not to Board investigations into existing rates such as the current proceeding. Section 225(a) plainly applies only to Section 225 proceedings, not to rate investigations—like this one—initiated under Section 227(b). The applicability of Board Rule 2.204(G)(2) is not as clear on its face; however, the rule prohibits updating a rate filing or the support for such a filing. The most reasonable interpretation of this provision is to read it as consistent with the scope of the similar anti-updating provision in Section 225(a),[49] such that it would apply only to utility-initiated rate filings.

There are good policy reasons as well to limit the strict prohibition on updating to utility-initiated rate proceedings. When the utility files for a change in rates, it is the utility that controls the timing of the filing, and the utility thus has the opportunity to compile the necessary support for its filing. As it enjoys this opportunity, the utility also must bear the obligation to file a rate change that is fully supported. With a Board-initiated investigation into existing rates, on the other hand, the utility does not have the same opportunity to amass the information supporting its rate levels in advance of the proceeding.[50] While late-filed information could still be excluded for reasons of fairness, here the Department had sufficient opportunity to respond to this allegedly new information.

Accordingly, I recommend that the Board allow the Company to include in its rates the test year level of 401(K) costs.

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49. *See In re CVPS*, Docket Nos. 5701/5724, Order of 10/31/94 at 23 n. 10.

50. I also note that the Department did not object to the introduction of the Company's rebuttal evidence regarding 401(K) costs as an impermissible update. Had the Department objected, then the Company would have had the opportunity in responding to the objection to demonstrate that the information was indeed reflected in its initial filing. The Department's failure to object to the admission of the 401(K) cost information in a timely manner provides an independent reason to reject the Department's complaint of illegal updating.

7. Target: Excellence

198. Target: Excellence ("T:E") is an internal training program at Citizens. The Company describes T:E as "the effort that establishes the principles by which all business programs and strategies are incorporated. The cost-saving plans and strategies which have evolved from Target: Excellence are both formal and informal." Company employees typically serve as facilitators for T:E sessions. Most of the cost of T:E goes toward surveys and materials, with the remaining costs being out-of-pocket and travel expenses. Mason pf. reb. 9/23/96 at 24; Schultz/DeRonne pf. 8/23/96 at 92; exh. DPS-HWS-2 at 121.

199. The test year T:E expenses include amortization of deferred start-up costs, Energy Sector costs that are distributed to VED, SAO costs distributed to VED, and costs incurred directly by VED. Mason pf. reb. 9/23/96 at 23; Schultz/DeRonne pf. 8/23/96 at 92.

200. The test year expenses include $18,000 for amortization of deferred T:E start-up costs. Those deferred costs were fully amortized by VED as of December 31, 1995. Schultz/DeRonne pf. 8/23/96 at 91; exh. DPS-HWS-2 at 119-120; tr. 12/4/96 at 112 (Mason).

201. Citizens proposes to remove one-half of its deferred T:E costs in rates, "[i]n light of the VED problems." Mason pf. reb. 9/23/96 at 26.

202. The test year expenses include $4,129 for T:E costs allocated from SAO. T:E costs incurred directly by VED are not separately tracked on VED's books, and thus could not be provided by Citizens. Citizens also did not provide the Department with T:E costs incurred by the Harvey Administrative Office that were allocated to VED. Schultz/DeRonne pf. 8/23/96 at 92-96; exh. DPS-HWS-1, sch. C-8 at 1.

203. As an example of specific benefits to Vermont ratepayers from T:E, Citizens points to the creation of in-house line construction crews, which the Company estimated will save $150,000 annually compared to the prior practice of relying on contractors. Mason pf. reb. 9/23/96 at 25; finding 227, below.

204. Citizens acknowledges that its shareholders would gain from any benefits that result from T:E. Tr. 12/4/96 at 138 (Mason).

Discussion re: Target: Excellence

I recommend that the Company remove all identified T:E costs from test year expenses. There are several reasons for this recommendation. First, the largest identified

amount included in test year T:E expenses is the $18,000 amortization of deferred start-up costs. Those costs were fully amortized by the end of the test year. There is no basis for including in rates an expense that has been fully written off by the end of the test year.[51]

Second, as with the IDCP costs, the record does not show that ratepayers are receiving any benefit from the T:E costs. The Company's example of the in-house line construction crews as a specific way that VED ratepayers have benefited from T:E is unconvincing. It is part of Citizens' normal responsibilities to seek the least-cost ways of providing service to its customers. Ratepayers should be paying the lower costs of in-house crews, without the need for T:E to identify such cost savings. Furthermore, Citizens acknowledged in its testimony that full recovery for T:E would not be justified due to "the VED problems" and in its brief that T:E "has floundered."[52] This record does not justify any cost recovery for T:E.

Third, in its brief, Citizens also stated that the Company "is attempting to collect only one-half of its Target: Excellence costs."[53] In fact, though, the Company only proposed to remove one-half of the amortization from cost of service, with no proposed reduction in test year expenses for any other T:E costs, including the $4,129 SAO allocation. Because there existed other, unquantified T:E costs in addition to the $4,129 SAO allocation, removal of the entire $4,129 will in fact result in a sharing of T:E costs between shareholders and ratepayers, albeit with unknown percentage shares.

The Department argues for removal of all T:E costs, including those for which no dollar amounts have been forthcoming; the Department would have the Company file an accounting of all T:E costs incurred by and assigned to VED, with the identified costs then removed from cost of service.[54] While I agree with the Department that in principle there are

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51. In its Reply Brief of 3/28/97 (at 52), Citizens contends that it must collect this deferral in rates through October 1996 in order to recover the deferred cost. This argument fails because, first, Citizens does not cite any record evidence on how or why recovery through October 1996 would be necessary for it to recoup the cost. Second, the amortization of the deferred costs is known to have ended by December 31, 1995; this constitutes a known and measurable change from test year expenses.

52. Citizens' Brief 3/14/97 at 140.

53. Citizens' Brief 3/14/97 at 140.

54. DPS Brief 3/14/97 at 92.

good reasons to deny Citizens recovery of any T:E costs, the evidentiary record does not permit any reductions beyond the $18,000 of amortized deferred costs and the $4,129 of SAO-allocated costs. As I noted with respect to Citizens' proposals to file additional evidentiary support for its proposed adjustments for SAO overhead allocations and non-pension post-retirement benefits, a compliance filing is not an appropriate vehicle to cure an evidentiary insufficiency.

8. SAO Allocated Expenses

205. The Department has recommended several adjustments to reduce test year expenses that reflect costs incurred at the SAO and subsequently allocated to VED according to Citizens' cost allocation model. Citizens has agreed to some of these adjustments, and proposed several additional reductions to such expenses. Findings 206-213, below; Schultz/DeRonne pf. 8/23/96 at 69-82; Mason pf. reb. 9/23/96 at 22.

206. The Department and the Company have agreed to the following adjustments to SAO-allocated costs in the VED cost of service: (1) a post-closing SAO adjustment; (2) removal of Dr. Tow's expense account; (3) removal of costs for kitchen supplies; (4) removal of costs for SAO wellness and corporate sport teams; (5) removal of residual rent expense for the 1200 High Ridge Road office; (6) removal of charitable contributions; and (7) an adjustment to depreciation expense. Mason pf. reb. 9/23/96 at 18, 22; exh. DPS-HWS-1-Conf, sch. C-8; exh. CUC-RJM-3.

207. There are some differences between the Department's and the Company's calculations of the dollar value of the seven agreed-upon SAO cost adjustments. The differences appear to be largely the result of the use of different models for distributing the costs. The Department used a model that the Company had provided to it in discovery; Citizens did not explain the model or other basis for its calculations. One other difference was in the amount of rent for 1200 High Ridge Road; the Department used a $70,900 figure provided by Citizens, but Citizens used the higher rent figure of $78,368 in its own calculation for the cost of service adjustment. Schultz/DeRonne pf. reb. 12/11/96 at 30-32; Mason pf. reb. 9/23/96 at 19.

208. The Department and the Company presented the following calculations for the seven agreed-upon adjustments. For each adjustment, the Department's calculation is presented first: (1) post-closing SAO adjustment, $29,051 and $27,522; (2) Dr. Tow's expense account, $216 and $348; (3) kitchen supplies, $141 and $101; (4) SAO wellness and sports, $486 and $486; (5) 1200 High Ridge rent, $985 and $1,089; (6) charitable contributions, $1,471 and $1,924; and (7) depreciation, $741 (this is the Department's figure alone, as there does not appear to be a corresponding figure in the Company's evidentiary submissions). Exh. DPS-HWS-1-Conf, sch. C-8; exh. CUC-RJM-3.

209. In addition to these seven agreed-upon adjustments, Citizens offered seven other reductions in SAO allocated costs, as follows: (1) food service coordinator, $195; (2) videos, $137; (3) projects/miscellaneous, $108; (4) special company events, $36; (5) executive physicals, $58; (6) miscellaneous other, $232; and (7) depreciation on SAO vehicles, $255. The Department agrees that these additional adjustments are appropriate. Schultz/DeRonne pf. reb. 12/11/96 at 32; exh. CUC-RJM-3.

210. Additionally, the final cost of service schedules that Citizens submitted into the record reflected the removal of $6,102 in SAO expenses allocated to VED for a supplemental pension for Dr. Tow, and $3,925 to reflect a cap on Dr. Tow's salary. Exh. CUC-KMK-6, sch. C-2 at 20.

211. Included in SAO’s 1995 expenses is $562,359 of directors fees and associated expenses. The Department asserts that fifty percent of the directors fees and expenses should be disallowed, resulting in a $1,954 reduction to expenses on a VED basis. The Department's rationale for this adjustment is that shareholders are responsible for electing the directors, who have allowed the events under review in these dockets in Vermont to occur. Schultz/DeRonne pf. 8/23/96 at 76-77; exh. DPS-HWS-1-Conf, sch. C-8.

212. VED’s test year expenses includes $12,269 and $4,129 allocated to it from the SAO for the IDCP program and the Target: Excellence program, respectively. Schultz/DeRonne pf. 8/23/96 at 77-78; exh. DPS-HWS-1-Conf, sch. C-8.

213. The Department contends that the costs allocated to VED from SAO for the IDCP and Target: Excellence programs should be disallowed, consistent with the

Department's proposed disallowance of similar costs incurred directly at VED during the test year. Schultz/DeRonne pf. 8/23/96 at 77, 78.

214. The costs allocated to VED from SAO should be reduced by an additional amount in order to reflect the impact on depreciation expense resulting from reductions in SAO-allocated plant in service. Schultz/DeRonne pf. 8/23/96 at 80; exh. DPS-HWS-1-Conf, sch. C-8, pages 1 and 4.

Discussion re: SAO Allocated Expenses

The parties have agreed on fourteen adjustments for costs allocated from SAO. The only dispute regarding these adjustments is the appropriate calculations for certain adjustments. I agree that these fourteen adjustments are all appropriate. Most represent the removal from rates of costs that have not been shown to be reasonable or necessary for providing service to Vermont ratepayers. The remainder of these fourteen adjustments reflect ordinary accounting corrections or flow-throughs of other adjustments.

The parties presented somewhat different calculations for certain of the agreed-upon adjustments. Because the Department's calculations were based on information provided by the Company, and because the Company has not explained the basis for its calculations, I recommend that the Board use the Department's calculations of these adjustments.[55]

Citizens' proposed reductions in cost of service to remove Dr. Tow's supplemental pension and to cap his salary are appropriate. Docket No. 5656, Order of 1/26/94 at 106-108.

The parties disagree on the appropriate treatment of directors' fees and costs. The Department has recommended that the directors' fees and costs be reduced by 50 percent in light of the serious management problems that it claims have been uncovered in this case. The DPS argues that the directors have allowed the events that are under review in these dockets to occur and, as such, should be held responsible. The Department’s recommendation would result in a $1,954 reduction to expenses that were allocated to VED during the test year for directors fees and costs. I decline to endorse the Department's proposed disallowance of half of the directors fees and costs at this time. Those fees and costs represent a reasonable and

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55. It should be noted that there is not a significant difference between the Department's and the Company's calculations, and that in some instances the Company's calculations would have resulted in a larger reduction in cost of service.

necessary cost of running a corporation, and consequently, I cannot conclude at this point that they should not be included in rates. However, my recommendation at this point is exclusive of any consideration of management problems at the Company. While the existence and extent of management problems is certainly relevant in the determination of this and other rate case issues, review of alleged management problems falls squarely within the scope of issues that the Board has reserved to decide itself directly, rather than through this Hearing Officer's Proposal for Decision.

Finally, I conclude that IDCP and T:E costs should be disallowed, for the reasons stated in Parts III(B)(6)(d) and III(B)(7) of these Findings.

In its compliance filing, Citizens should remove the depreciation expense associated with the reductions in SAO-allocated plant in service described in Part III(A)(8) of these Findings.

9. Relocation Costs

215. VED test year expenses include a $79,629 allocation of the total cost ($734,233) of moving the Energy Sector from the SAO in Connecticut to the Harvey Administrative Office in Louisiana. Schultz/DeRonne pf. 8/23/96 at 97; exh. CUC-KMK-6, sch. C-1.

216. The Department proposes removal of the relocation costs in their entirety, on the grounds that they represent a non-recurring expense. Citizens is willing to amortize the costs over three years. Schultz/DeRonne pf. 8/23/96 at 97; Kiener pf. 9/23/96 at 10.

Discussion re: Relocation Costs

While Citizens correctly notes that some relocation expenses can be expected to recur, it is not reasonable to expect a relocation as extensive as the test year relocation of the entire Energy Sector to recur on a regular basis. To include the costs of the relocation to Louisiana in rates, even if amortized over three years, would almost certainly result in a substantial overstatement of the relocation expenses that would be incurred during the effective dates for the rates that will be set in this proceeding.

Consequently, I recommend that the Board adopt the Department's proposed adjustment, which results in a $79,629 reduction in test year expenses.

10. Acquisition Costs

217. Test year expenses included $14,087 of non-recurring costs for unsuccessful acquisitions. The Department and the Company agree that this expense should be removed from cost of service. Schultz/DeRonne pf. 8/23/96 at 97-99; Kiener pf. reb. 9/23/96 at 9; exh. CUC-KMK-2R, sch. C-2 at 12.

Discussion re: Acquisition Costs

I recommend that the Board accept the parties' agreement to reduce test year expenses by $14,087, as this cost is both non-recurring and not used to provide service to Vermont ratepayers.

11. Audit Costs

218. Citizens included in test year expenses $7,947 that was allocated to VED for the external audit of the corporation. Schultz/DeRonne pf. 8/23/96 at 103.

219. The Department requested access to the auditor's workpapers. Citizens initially denied access, but later offered to allow access under specified conditions. Schultz/DeRonne pf. 8/23/96 at 100-101.

220. The external auditors did not visit Vermont to audit VED records. Tr. 12/2/96 at 121 (Petit).

221. The Department contends that the external audit costs should be disallowed, because Vermont ratepayers received no benefit from the audit, as the audit did not identify accounting problems at VED. Schultz/DeRonne pf. 8/23/96 at 102-103.

Discussion re: Audit Costs

The Department's arguments for disallowing VED's share of the costs of the external audit ignore the fact that the costs are a necessary concomitant of doing business for a public corporation. I recommend that the Board reject the Department's proposed adjustment, and allow Citizens to include the $7,947 in test year expenses.

12. Market Reach

222. Test year expenses included $9,000 paid to a public relations firm called Market Reach. The Department and the Company agree that this expense should be removed from cost of service. Schultz/DeRonne pf. 8/23/96 at 104; Kiener pf. reb. 9/23/96 at 10; exh. CUC-KMK-2R, sch. C-2 at 12.

Discussion re: Market Reach

I recommend that the Board accept the parties' agreement to remove the $9,000 of public relations costs from test year expenses, as public relations costs should not be borne by Vermont ratepayers.

13. Quality Action Team W/O

223. A reduction of $1,094 in the Company's proposed cost of service is necessary to remove an item identified as "Quality Action Team W/O." This item represents a fringe benefit that was incorrectly booked to Account 921, rather than the correct Account 926. Had the item been correctly posted, the test year costs reflected in Account 926 would have been $1,094 higher, thereby reducing the Company's pro forma adjustment by that amount. Schultz/DeRonne pf. 8/23/96 at 85.

Discussion re: Quality Action Team W/O

The Department included this proposed adjustment in its direct testimony. The Company did not respond to the adjustment in its rebuttal filings. Therefore, based on the evidence in the record, I conclude that this $1,094 adjustment is required.

14. Directors' and Officers' Liability Insurance

224. Citizens' filing includes $3,975 of test year expenses allocated from SAO for Directors' and Officers' liability insurance. Schultz/DeRonne pf. 8/23/96 at 104.

225. Directors' and Officers' liability insurance is provided by the corporation to defend its directors and officers from lawsuits. It is a normal business expense of a corporation. O'Brien pf. reb. 9/23/96 at 51.

226. The Department proposes disallowance of the cost of this insurance, on the grounds that lawsuits against directors and officers are almost always brought by shareholders,

and that shareholders are the primary beneficiaries of any resulting proceeds, concessions or management changes. Schultz/DeRonne pf. 8/23/96 at 104.

Discussion re: Directors' and Officers' Liability Insurance

As is the case with the external audit, Directors' and Officers' liability insurance is a necessary cost of doing business as a corporation, and as such should be included in rates, unless there is a showing that the costs are excessively high. Docket No. 5656, Order of 1/26/94 at 108. Thus, I recommend that the Board allow this expense to be included in cost of service.

15. Construction Crew Cost Savings

227. In April 1995, VED initiated an in-house line construction crew, which reduced the need to hire outside contractors, at a higher cost, to perform line construction and maintenance. Citizens has estimated annual savings from the in-house crew to be $150,000. Schultz/DeRonne pf. 8/23/96 at 105-106; exh. DPS-HWS-2 at 130-131.

228. Because the in-house crew was formed in April of 1995, the costs savings associated with the crew would not be reflected in the first three to four months of test year (1995) costs, but would be captured in the costs booked for the remainder of the test year. Schultz/DeRonne pf. 8/23/96 at 106.

229. The Department proposes a reduction to test year expenses of $43,750, for three and one-half months of additional cost savings from the in-house crew that would not be reflected in the test year costs. The $43,750 is a pro rata share of the $150,000 estimated annual savings. Schultz/DeRonne pf. 8/23/96 at 106, 108; exh. DPS-HWS-1, sch. C-12.

Discussion re: Construction Crew Cost Savings

Citizens objects to the Department's proposal to reflect a full year of cost savings for the in-house line construction crew. Citizens contends that the savings are an "unsupported estimate," that the savings will vary from year-to-year, and that there is no basis for assigning a pro rata share of the annual savings to the early part of the year when construction activity is

lower.[56] Consequently, Citizens claims, the adjustment is not known and measurable. Citizens also claims that the in-house crew and associated cost savings were the result of the Company's Target: Excellence program, and suggests that the Department should not oppose recovery of Target: Excellence costs yet seek to capture the savings generated by that program.[57]

While Citizens' criticisms of the accuracy of the cost savings estimate bear some validity, I nonetheless recommend that the Board adopt the Department's proposed adjustment, for two reasons. First, the savings estimate is Citizens' own. Citizens had the better access to the information required for a more accurate estimate, but provided none. Second, and more fundamentally, the $43,750 should be removed from test year expenses because it represents unnecessary and unreasonable costs. Without the Department's adjustment, Vermont ratepayers would be paying for test year expenses unnecessarily inflated by the higher costs of contract crews. It is incumbent upon Citizens to provide service to its customers at the lowest cost, which it failed to do prior to April, 1995 with respect to line construction crews. It should not have required a program like Target: Excellence for the Company to assess whether it is more cost-effective to perform line construction and maintenance in-house.

Accordingly, test year expenses should be reduced by $43,750. Although this represents an imprecise estimate of the excessive costs that are included in test year expenses, it is the best number in the record for this necessary adjustment.

16. Blue Print Review

230. Citizens included in its filing $4,374 for the Vermont Blue Print Review. The Blue Print Review involves Citizens' personnel visiting the VED to assess the Company's business processes in Vermont. Schultz/DeRonne pf. 8/23/96 at 85.

231. The Department's witnesses proposed disallowing the Blue Print Review costs based on their understanding that they are non-recurring, or at least infrequently occurring,

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56. Citizens' Brief 3/14/97 at 145; Citizens' Reply Brief 3/28/97 at 53-54.
57. Citizens' Brief 3/14/97 at 144.

costs. This understanding came from the deposition testimony of Company witness Thomas Petit. Schultz/DeRonne pf. 8/23/96 at 85.

232. Mr. Petit was mistaken. Blue Print Reviews are common, and recur periodically. In fact, a Blue Print Review of the VED was under way as of September, 1996. Kiener pf. reb. 9/23/96 at 10-11.

Discussion re: Blue Print Review

The Department did not address the Blue Print Review in its briefs. The Department's original recommendation to disallow these costs was based on a misunderstanding by a Company witness. Based on more accurate information, these costs should not be disallowed as non-recurring. I recommend that the Board allow recovery of the Blue Print Review costs.

17. PCB Removal Costs

233. In October, 1995, Citizens recorded $93,921 in Account 570 for PCB analysis and removal costs. The purpose of the entry was to transfer charges to expense. In April, 1996, Citizens reversed this amount along with other PCB removal costs for a total reversal of $125,163. Schultz/DeRonne pf. 8/23/96 at 109; Schultz/DeRonne pf. supp. 11/13/96 at 1.

234. In its testimony, the Department recommended that the total $125,163 of costs for PCB removal be disallowed. The basis for the recommended disallowance is that the costs are non-recurring. According to the Department's witnesses, Citizens had indicated in response to discovery that the $93,921 represented a non-recurring charge. Schultz/DeRonne pf. 8/23/96 at 109.

235. The Citizens' discovery response actually stated that the October 1995 accounting entry was "not a recurring *journal entry*." Exh. DPS-HWS-2 at 132 (emphasis added).

236. Citizens has agreed to remove $93,821 in costs associated with PCB analysis and removal. Citizens contends that the remainder of the $125,163 (i.e., $31,342) should remain in cost of service, as PCB removal and analysis represents a recurring, normal cost of providing service to its ratepayers. Kiener pf. reb. 9/23/96 at 5; Avery pf. reb. 9/23/96 at 7; exh. CUC-KMK-6, sch. C-2 at 5.

Discussion re: PCB Removal Costs

The Department did not address this issue in its briefs. The record with respect to the basis for the PCB cost figures is not entirely clear. However, it appears that $93,821 of expense for PCB analysis that was recorded in Citizens' books for the test year was later reversed. The parties have agreed to the removal of this $93,821. The only dispute is whether the remaining $31,342 should be disallowed. The record does not reveal whether this amount, too, represents an expense that was booked in the test year and later reversed.

Absent a showing by the Department that the $31,342 was inappropriately booked in the test year, there is insufficient basis in the record to remove it from cost of service. Therefore, the only adjustment that I recommend is a reduction of $93,821 from the recorded test year expense.

18. Advertising Expense

237. Test year expenses included $10,805 in advertising expense. The Department recommended removal of $3,106 of these expenses, on the basis that they were associated with promotional advertising that did not benefit ratepayers. The Company agreed to remove the $3,106 from cost of service. Schultz/DeRonne pf. 8/23/96 at 109-110; exh. DPS-HWS-1 at sch. C-13; exh. CUC-KMK-2R, sch. C-2 at 12.

Discussion re: Advertising Expense

I recommend that the Board accept the parties' agreement to remove $3,106 of promotional advertising expenses. Those expenses should not be included in rates because they do not benefit ratepayers. Docket No. 5372, Order of 5/31/90 at 25-26.

19. Corrections to Depreciation Expense

238. In its initial filing, Citizens calculated the depreciation expense for Account 353 (Station Equipment) using an incorrect depreciation rate of 2.72 percent. When the correct depreciation rate of 2.52 percent is applied, pro forma depreciation expense is reduced by $16,017. The Department and Citizens agree that this correction is appropriate. Schultz/DeRonne pf. 8/23/96 at 111; exh. DPS-HWS-1, sch. C-14; exh. CUC-KMK-2R, sch. C-2 at 9.

239. In its original filing, Citizens mistakenly included in pro forma depreciation expense a $5,525 amount that was left in its rate filing model from the previous rate case. The parties agree that this error should be corrected by removing the $5,525 from the cost of service. Schultz/DeRonne pf. 8/23/96 at 112; exh. DPS-HWS-2 at 136; exh. CUC-KMK-2R, sch. C-2 at 10.

Discussion re: Corrections to Depreciation Expense

The Board should adopt the parties' two proposed reductions—$16,017 and $5,525—in depreciation expense, as they are necessary to correct errors in the Company's initial filing.

20. Property Taxes

240. Citizens calculated its proposed pro forma property tax expense of $673,225 by increasing the actual test year expense of $634,101 by 6.17 percent, which is the percentage increase in plant from the beginning to the end of the test year. Thus, Citizens is proposing an increase of $39,124 in test year expense. Schultz/DeRonne pf. 8/23/96 at 113; Kiener pf. 4/5/96 at 18; exh. CUC-KMK-6, sch. C-2 at 8.

241. The Department contends that the Company's pro forma adjustment to property taxes is inappropriate for two reasons. First, claims the Department, the increase is not known and measurable, because factors in addition to plant balance affect Citizens' property tax bill. Second, the Department asserts that the Company's proposal violates the matching principle, because rates are based on test year average balance for plant in service, while Citizens' proposed pro forma property tax is based on the plant balance at the end of the test year. Schultz/DeRonne pf. 8/23/96 at 113-114.

Discussion re: Property Taxes

In its reply brief, Citizens strongly disputes the Department's position, contending that "the Department fails to recognize that property taxes in Vermont are based on the fair market value of the taxpayer's property."[58] That may be how property taxes are set, but that does not make Citizens' proposed increase in tax expense known and measurable.

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58. Citizens' Reply Brief 3/28/97 at 50.

Citizens' proposed increase in property taxes is not known and measurable and thus is not proper to include in rates. Even were the increase known and measurable, it still would not be appropriate because it would be based on year-end plant, not the average test-year plant upon which rates in this proceeding are based.

Thus, I recommend that the Board deny Citizens' proposed $39,124 increase in test year property tax expense.

21. Uncollectible Accounts Expense

242. In its initial filing, Citizens calculated pro forma uncollectibles expense using the actual test year uncollectibles rate of 0.26 percent. Schultz/DeRonne pf. 8/23/96 at 114.

243. The uncollectibles rate is also used in calculating the gross revenue conversion factor. Schultz/DeRonne pf. 8/23/96 at 116.

244. Citizens' uncollectibles rate varies from year to year. The test year rate was higher than in any of the preceding four years. Schultz/DeRonne pf. 8/23/96 at 115.

245. The Department and the Company agree that the five-year average rate for uncollectible accounts, which is 0.24 percent, should be used in calculating pro forma uncollectibles expense and in calculating the gross revenue conversion factor. Schultz/DeRonne pf. 8/23/96 at 115-116; Kiener pf. reb. 9/23/96 at 13; exh. CUC-KMK-7; tr. 12/18/96 at 115-116 (Kiener).

Discussion re: Uncollectible Accounts Expense

The parties' proposed use of the five-year average rate for uncollectible accounts—0.24 percent—is reasonable, and should be adopted by the Board for the calculation of uncollectibles expense and the gross revenue conversion factor. I do not recommend a dollar value for these adjustments at this time because, as noted in Part III(B)(4) of these Findings, there is an apparent error in Citizens' calculation of revenues for the former Franklin service territory. Citizens should supply the correct figure as part of its compliance filing.

22. Gross Revenue Conversion Factor

246. Citizens used a gross revenue conversion factor of 1.70083, which reflects the agreed-upon uncollectibles rate of 0.24 percent. Exh. CUC-KMK-6, sch. A-3.

247. The Department used a gross revenue conversion factor of 1.6837, which was based on an uncollectibles rate of 0.2281 percent. Exh. DPS-HWS-1, sch. A-2 and sch. C-17 at 2.

Discussion re: Gross Revenue Conversion Factor

There was no testimony by either party to support the respective gross revenue conversion factors. Citizens revised its proposed gross revenue conversion factor to reflect the agreed-upon uncollectibles rate of 0.24 percent; the Department did not.[59] Because the Company's factor was corrected to correspond to the appropriate uncollectibles rate, and there is no other evidence to demonstrate that the Department's proposed rate is otherwise more accurate, I recommend that the Board accept the Company's revised factor of 1.70083.

23. Tax Impact of Land Donation

248. The parties have agreed that income tax expense should be reduced by $50,961 to reflect Citizens' donation of Big Troy Falls to the State of Vermont. Finding 6.

Discussion re: Tax Impact of Land Donation

As with the associated rate base adjustments for this land donation, I recommend that the Board adopt the parties' proposed reduction of $50,961 in income tax expense.

24. Interest Synchronization

249. Interest expense in the income tax calculation should be synchronized to the final rate base that is determined by the Board. The rate base is multiplied by the weighted cost of debt, producing the synchronized interest deduction to be used in calculating income tax expense. Schultz/DeRonne pf. 8/23/96 at 118; exh. DPS-HWS-1, sch. C-20.

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59. In the attachments to its brief, the Department did revise its calculation to reflect the 0.24 percent uncollectible rate. DPS Brief 3/14/97, att. C. However, this is not in the evidentiary record.

Discussion re: Interest Synchronization

Interest synchronization is necessary to ensure that the calculation of income tax expense is consistent with the rate base that the Board determines in this proceeding. Both parties acknowledge that interest synchronization is appropriate.[60]

25. Regulatory Expenses

250. Citizens included in its original filing an increase of $599,226 over test year expenses to recover the costs of past rate cases, non-rate related expense, and a two-year amortization of the costs of the current proceeding. Koliander pf. 8/23/96 at 2.

251. The Company included in its original filing $53,838 for amortized costs associated with Docket Nos. 5426, 5656, and 5809. This was calculated incorrectly, as the Company added rather than subtracted the costs already amortized, thereby overstating the unamortized amounts. The Company later corrected this figure to $44,581. Koliander pf. 8/23/96 at 2-3; Schultz/DeRonne pf. 8/23/96 at 121; Kiener pf. reb. 9/23/96 at 3; exh. CUC-KMK-2R, sch. C-2 at 7.

252. With the corrected amortization of past rate case expenses, the Company's proposed pro forma regulatory expense is $797,379, which represents an increase of $589,969 over the actual test year expense of $207,410. Exh. CUC-KMK-2R, sch. C-2 at 7.

253. The Department opposes recovery of the prior rate case expenses, on the grounds that, according to the Department, we now know that the Company has failed to follow sound accounting and least-cost planning practices, and thus the costs of the prior dockets resulted in rates that were not just and reasonable. Koliander pf. 8/23/96 at 3.

254. The Company's proposed adjustment for non-rate related expenses is $3,410. Department witness Koliander testified that this expense appears to have already been collected in rates and fully charged off to expense by the end of 1995. Citizens did not provide any testimony to rebut these assertions. Koliander pf. 8/23/96 at 2; tr. 12/2/96 at 65-67 (Koliander).

255. The Company projects that its costs for the current proceeding will amount to $1,498,776. In its original filing, the Company proposed that ratepayers pay the full amount of these costs, amortized over two years, resulting in a $749,388 expense included in

60. Schultz/DeRonne pf. 8/23/96 at 117-118; Citizens' Brief 3/14/97 at 148-149.

Citizens' pro forma rate case expenses. Koliander pf. 8/23/96 at 3; exh. CUC-KMK-2R, sch. C-2 at 7.

256. In later testimony, the Company stated that it should bear "a lion's share" of the costs associated with this proceeding, along with a longer amortization period of three to five years for recovery of the costs of this proceeding. Tr. 2/6/97 at 128 (Love); O'Brien pf. reb. 9/23/96 at 28.

257. The Department opposes recovery of any of the costs of the current proceeding. The Department presents two arguments in support of its position. First, the Department contends that the costs of the current proceeding are so extraordinary as to constitute a non-recurring expense. Second, the Department asserts that the current proceeding would not have been necessary but for Citizens' failures to comply with state law and good utility practice. Koliander pf. 8/23/96 at 3-5; *see also* DPS Brief 3/14/97 at 162-164.

Discussion re: Regulatory Expenses

There are three categories of regulatory expenses that Citizens seeks to recover in cost of service: non-rate related expense, prior rate case costs, and the costs of the current proceeding.

The Department presented unrebutted and unchallenged testimony that the non-rate related expense has already been collected in rates and fully expensed by the end of the test year, and accordingly I recommend that the Board disallow the $3,410 of non-rate related expense.[61]

The Department contends that the Board should disallow recovery of amortized costs from prior Citizens rate proceedings. The Department believes that these costs should be disallowed because, based on the problems with Citizens' books that it claims have been demonstrated in this proceeding, those prior rate cases did not result in just and reasonable rates. I disagree with this rationale. Without going back and re-reviewing the evidence in those rate case dockets, the Board could not conclude that the rates previously set were not just

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61. Although Citizens included this cost in its schedules, it did not present any testimony or other evidentiary support for the recovery of this cost, did not cross-examine the Department's witness regarding this adjustment, and did not address this cost in its direct or reply brief.

and reasonable. Furthermore, there is no evidence that the necessity for, or costs of, those prior dockets were affected by problems with Citizens' books. Thus, there is not a sufficient basis for disallowing the costs of prior rate proceedings.

By far the largest part of the Company's requested level of rate case expense is associated with the cost of the current proceeding. The Company projects that this proceeding will cost $1,498,776. The Company has modified its original proposal for recovery of these costs. Originally, it proposed that all costs of this proceeding be recovered from ratepayers, to be amortized over two years. This would have added $749,388 to the cost of service. The Company now proposes that it recover fully the costs of the rate investigation portion of this proceeding, amortized over three years, and that ratepayers pay 35 percent of the costs of the prudence investigation, amortized over five years. (Citizens would allocate the $1,498,776 equally to the rate investigation and the prudence investigation.) Citizens also proposes that ratepayers not pay any of the costs of the audits of DSM and transmission plant associated with this proceeding.

Under Citizens' current proposal, the cost of service would include $302,251 for the costs of the current proceeding.[62] When combined with the Company's proposed recovery of $3,410 in non-rate related expenses and $44,581 in amortized costs of prior dockets, Citizens' current proposal results in a pro forma regulatory expense of $350,242, which represents an increase of $142,832 over recorded test year expense.[63]

The Department opposes rate recovery of any costs associated with the current proceeding, on two grounds: that the costs are non-recurring, and that this proceeding was necessitated only by problems of Citizens' own doing. Because the second of these grounds involves the core issues that the Board is deciding directly in the prudence investigation, rather than referring to me as Hearing Officer, I will not address this second basis for possible disallowance. Instead, I recommend that the Board determine in its consideration of the

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62. Calculated as follows: for the rate investigation, $749,388 amortized over 3 years = $249,794 per year; for the prudence investigation, 35 percent of $749,388 amortized over 5 years = $52,457 per year. $249,794 + $52,457 = $302,251. *See* Citizens' Brief 3/14/97, Att. 2, sch. C-2 at 7 and sch. A&G-7.

63. Citizens' Brief 3/14/97, Att. 2, sch. C-2 at 7.

prudence issues whether those issues provide a basis for disallowing the costs of this proceeding.

With respect to the Department's contention that the costs of this proceeding are non-recurring and thus not recoverable, I disagree. Costs of regulatory proceedings are undoubtedly recurring, just as are costs of storm damage. Unprecedented levels of regulatory costs, like unprecedented costs from storm damage, are extraordinary yet recoverable (unless, of course, there is some other basis for disallowance). The extraordinary level of costs militates for recovery over a period of time, or for recovery of a running average, but not for disallowance.

If the Board should determine that costs associated with this proceeding are recoverable, however, I recommend that the amortization period be ten years for both the rate investigation costs and the prudence investigation costs. This is a more reasonable period than those periods proposed by Citizens for the recovery of such a large expense. With the ten-year amortization period applied to the Company's proposal that ratepayers pay 100 percent of the costs of the rate investigation and 35 percent of the costs of the prudence docket, Citizens' pro forma regulatory expense is $145,748,[64] which represents a reduction of $61,662 from the test year expense ($207,410 - 145,748 = $61,662).

26. Diesel Units

258. The VED has seven diesel generators. Exh. CUC-SJL-1.

259. Citizens has not regularly maintained the diesel generators, resulting in serious deterioration of the units. Millspaugh pf. 8/23/96 at 27-29; exh. DPS-Cross-29.

260. In its original filing, Citizens included the projected costs of refurbishing the diesel generators. Subsequently, Citizens determined that it will not pursue refurbishing the diesel generators at this time, and consequently agreed to remove all costs associated with refurbishing them. Lacasse pf. reb. 9/23/96 at 13; exh. CUC-KMK-6, sch. C-2 at 4.

Discussion re: Diesel Units

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64. Calculated as follows: 100% of $749,388 + 35% of $749,388 = $1,011,674, amortized over 10 years = $101,167 per year; adding the $44,581 for prior rate cases = $145,748.

The Department and Citizens now agree that the cost of refurbishing the diesel generators should be removed from cost of service. I conclude that such removal is appropriate.

27. Power Costs

261. Citizens and the Department have stipulated to total power costs of $15,496,556, which represents an increase of $474,828 over test year power costs. The only unresolved power cost issue is whether the cost of replacement power associated with Dam No. 11 should be recovered. The parties agreed that the cost of that replacement power is $189,000. Exh. Joint-1.

Discussion re: Power Costs

I conclude that the stipulated power costs of $15,496,556 represents a reasonable level of power costs to include in cost of service.

I further conclude that the cost of replacement power for Dam No. 11 should not be included in cost of service because, for the reasons set forth in Part III(A)(11) of these Findings, that cost was incurred as a result of the Company's imprudence.

C. Cost of Capital

262. The Company's filing used a hypothetical capital structure of 50 percent equity and 50 percent long-term debt. This is the same hypothetical capital structure that was used in the most recent Citizens' rate case, Docket No. 5809. Kiener pf. 4/5/96 at 6; exh. CUC-KMK-6, sch. A-2.

263. Citizens' actual cost of long-term debt is 7.28 percent. Exh. CUC-KMK-6, sch. A-2.

264. Citizens and the Department have stipulated to a cost of common equity of 10.5 percent. Kiener pf. 4/5/96 at 6.

Discussion re: Cost of Capital

The parties have agreed that the overall cost of capital for Citizens is 8.89 percent, based on a capital structure comprised of fifty percent equity and fifty percent debt, a cost of common equity of 10.5 percent, and Citizens' actual cost of long-term debt of 7.28 percent.

This capital structure, cost of equity, cost of debt, and overall cost capital are all reasonable, and I recommend that the Board accept them for purposes of establishing the rates in this proceeding.

The Department has proposed that Citizens be penalized three percentage points on its cost of equity. The possible imposition of such a penalty should be addressed by the Board in the prudence docket.

D. Demand-Side Management

1. Accounting

a. DSM and ACE Costs

265. Citizens' April 5, 1996, filing included $6,619,681 in rate base which was labeled "Unamortized DSM Balance." This amount consists of $7,316,731 of deferred DSM costs offset by the requested annual amortization expense for DSM of $1,463,346 ($7,316,731 - $1,463,346 = $5,853,385) plus deferred Account Correcting for Efficiency ("ACE") recovery amounts of $957,870 offset by the requested annual amortization expense for ACE of $191,574 ($957,870 - $191,574 = $766,296). Thus total DSM/ACE originally included in rate base is $6,619,681 ($5,853,385 + $766,296 = $6,619,681). Schultz/DeRonne pf. 8/23/96 at 13-15; exh. CUC-KMK-2R, sch. B-7 and C-2 at 5.

266. Citizens' deferred DSM costs in Finding 265 consist of the balance from Docket No. 5809 of $4,318,945, an adjusted total from June 1994 through December 1994 of $1,337,871, and an adjusted total for calendar year 1995 of $1,669,915, for a total of $7,316,731. Exh. CUC-MAS-1.

267. In its original filing, Citizens' schedules indicated that it projected a pro forma DSM amortization expense of $1,654,920 ($1,463,346 of DSM amortization + $191,574 of ACE recovery). Schultz/DeRonne pf. 8/23/96 at 15; exh. CUC-KMK-2R, sch. B-7 and C-2 at 5.

268. Citizens later revised its deferred DSM costs from $7,316,731 to $7,367,120.[65] In its revision, Citizens adjusted both the deferred DSM expense (revised to $6,858,601) and

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65. While Citizens' Brief at 55 states that its revised unamortized DSM balance is $7,367,720, Exhibit CUC-MAS-1R shows a balance of $7,367,120. Exh. CUC-MAS-1R.

the deferred ACE recovery amounts (revised to $508,519). As a result, Citizens' requested annual amortization expense for DSM is $1,371,720, leaving an unamortized balance of $5,486,881. Citizens also requested annual amortization for ACE of $101,704 leaving an unamortized balance of $406,815 ($508,519 - $101,704 = $406,815). Thus revised total DSM/ACE cost included in rate base, labeled "Unamortized DSM Balance," is $5,893,696 ($5,486,881 + $406,815 = $5,893,696). Exh. CUC-KMK-6, sch. B-7 and C-2 at 5.

269. Citizens' expense adjustment to the test year for DSM, in both proposals, is based on $1,033,502 for amortized DSM costs allowed in Docket 5809. *Id.*; exh. CUC-KMK-2R, sch. B-7 and C-2 at 5.

270. Actual booked test year O&M expenses included $1,173,055 for amortization of DSM/ACE. Actual O&M expenses should be used to determine cost of service adjustments, not amounts that may have been previously allowed in other dockets. The only amortization amount verified in the general ledger is the $1,173,055. Citizens' adjustment of DSM/ACE expense is overstated by at least $139,553 ($1,173,055 - $1,033,502). Schultz/DeRonne pf. 8/23/96 at 22; exh. DPS-HWS-2 at 120; exh. CUC-KMK-2R, sch. C-2 at 5; exh. CUC-KMK-6, sch. C-2 at 5.

271. The amount of DSM costs reflected in Citizens' Exhibit CUC-MAS-1, which shows the DSM costs that Citizens originally sought to recover in this proceeding, does not tie into Citizens' books and records, including its general ledger. The total DSM amortization expense reflected on Exhibit CUC-MAS-1, for the period June 1994 through December 31, 1995, is $535,231 ($204,015 + $331,216). However, the amount of DSM amortization expense for the 1995 test year was $1,173,055 based on VED's general ledger. To the extent that the prior amortization amounts presented in Exhibit CUC-MAS-1 are understated, the unamortized DSM costs for which Citizens is requesting rate recovery based on the Exhibit is overstated. Schultz/DeRonne pf. 8/23/96 at 15 and 21; exh. DPS-HWS-1, sch. B-4 at 1; Shepherd pf. 4/5/96 at 3; exh. CUC-MAS-1.

272. To the extent that any costs are being requested as a line item in rate base and the amount has been charged to O&M expense, a duplication of costs occurs resulting in a potential double recovery of such amounts. Costs in Exhibit CUC-MAS-1 that are not reflected on the general ledger plant account, CWIP account and deferred asset account should

be presumed to have been expensed. If already expensed, the costs cannot be included as a deferred cost because that would allow for potential double recovery. Schultz/DeRonne pf. 8/23/96 at 17, 22-23.

273. According to Citizens' pre-revision exhibits, VED recorded $4,318,945 of DSM/ACE in electric plant in service. Citizens' filing reflected an unamortized DSM balance of $3,955,656 ($7,316,731 DSM + $957,870 ACE - $4,318,945) as of December 31, 1995, exclusive of the $4,318,945 purportedly recorded in plant. Exh. CUC-KMK-2R, sch. B-7 and C-2 at 5; exh. CUC-MAS-1.

274. For the same date, VED's general ledger reflected a net deferred DSM balance total of $2,576,863 ($1,744,542 DSM + $832,321 CWIP) which is $1,378,793 ($3,955,656 - $2,576,863) less than the balance indicated in the Company's filing. Schultz/DeRonne pf. at 14.

275. Citizens claims that the unamortized DSM and ACE balance of $4,318,945 from Docket No. 5809 shown in Exhibit CUC-MAS-1 can be tied to the general ledger. Citizens made over 15 adjustments to the general ledger to reconcile CUC-MAS-1 with the general ledger. That reconciliation includes an addition to the DSM/ACE balance shown on CUC-MAS-1 of $41,511 to reflect certain DSM costs which should have been included in the original exhibit but were not. Exh. CUC-MAS-1; exh. CUC-Redirect-8.

276. The Department was unable to locate the $4,318,945 of DSM costs that were purportedly incurred by Citizens through May 1994 on VED's general ledger. The Company indicated in a response to a DPS data request that $972,248 of this amount was included in Account 107 - CWIP, and the remaining costs were included in Account 101.1 - Property, Plant and Equipment.[66] This accounting treatment is not in accordance with FERC accounting rules. Schultz/DeRonne pf. 8/23/96 at 15-16; exh. CUC-MAS-1.

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66. In response to DPS data request 2-61, Citizens provided three separate responses. The first response, dated June 20, 1996, indicates that $4,318,945 of purported DSM costs incurred through May 31, 1994, were recorded in Accounts 107 and 101.1. The final response, dated December 16, 1996, indicates that only $3,946,478 was on the general ledger. Exh. DPS-HWS-2 at 7; exh. CUC-Redirect-8.

277. The Department contends that for the amounts that the Company represents were incurred during June 1994 through December 1994 ($1,337,871), only $874,992 was recorded on VED's general ledger for the same period. Of Citizens' claimed 1995 DSM costs of $1,659,915, only $869,550 was recorded on VED's general ledger during the same period. After adjustments for line items such as amortization and AFUDC, the Department identified a total discrepancy of $1,133,522 with the general ledger. Schultz/DeRonne pf. 8/23/96 at 16-17; exh. DPS-HWS-1, sch. B-4 at 1; exh. CUC-MAS-1.

278. On December 19, 1996, one day after entering into evidence a document claiming to reconcile Citizens' original claim for DSM/ACE recovery in CUC-MAS-1 with the general ledger, Citizens entered a revised exhibit showing a new set of claims for DSM/ACE recovery. Citizens' revised DSM costs include a reduced balance from Docket 5809 of $4,182,610, a revised adjusted total from June 1994 through December 1994 of $1,242,357, and an adjusted total for calendar year 1995 of $1,485,360, for a total DSM balance of $6,910,327. The adjustments proposed in this exhibit decrease the DSM balance by $406,404 ($7,316,731 - $6,910,327). Exh. CUC-MAS-1; exh. CUC-MAS-1R.

279. To this amount, Citizens added ACE adjustments totaling $508,519, and subtracted an agreed upon adjustment for legal fees of $12,000, and accruals of $39,726 for a total of deferred DSM and ACE costs of $7,367,120. *Id*.

280. In Citizens' exhibit of December 19, 1996, the sum of amortization amounts total $449,296 ($168,630 for amortization from 6/1/94 to 12/31/94 + $280,666 for amortization for calendar year 1995). Citizens' revised exhibit claiming to reconcile its DSM balance with the general ledger shows an adjustment for prior years' DSM amortizations of $352,066. Thus total DSM amortization shown in Citizens' revisions total $801,362. However, in response to a Department information request, Citizens claimed a total of $1,173,055 in DSM amortizations for test year 1995. There is no explanation in the record for this apparent discrepancy. Exh. CUC-MAS-1R; exh. CUC-Redirect-8; exh. DPS-HWS-2 at 119-120.

281. ACE amounts approved for recovery have not been recorded in the general ledger. Randall pf. reb. 9/23/96 at 5.

282. Citizens recorded a year-end accrual in December 1995 to its deferred asset Account 186 for DSM costs and credited the accrual to Account 183 - Preliminary Survey and

Investigation Charges. The preliminary survey account had a credit balance during the test year, and an even larger credit balance after VED's recording of this entry. In addition to this transfer, VED recorded $181,837 of DSM cost transfers at December 31, 1995, to the deferred asset account, Account 186, and credited a deferred DSM account which also had a credit balance. These entries are not in accordance with Generally Accepted Accounting Principles ("GAAP"). Schultz/DeRonne pf. 8/23/96 at 14, 17.

283. Under GAAP, when a company accrues an estimated liability, the liability should be reflected in the general ledger as an accrued liability, not as a credit to a deferred asset account. Schultz/DeRonne pf. 8/23/96 at 17.

284. Under VED's accounting practices, more costs have been transferred out of certain DSM accounts than were actually included in the amounts originally. Schultz/DeRonne pf. 8/23/96 at 17.

285. Account 183 was typically used for construction activities pending the opening of an Improvement Order. However, over a number of years, VED used this account to record the credit side of year-end accruals (excluding power purchases), and this resulted in the account’s credit balance at year-end. Citizens admits that it is uncertain as to why this practice began, but has agreed to discontinue the practice by the end of 1996. Randall pf. reb. 9/23/96 at 7, 8.

286. The Company acknowledges that a portion of the credit balance in Account 186 should have gone to CWIP where the majority of DSM charges were recorded. The Company has agreed to eliminate this credit when the plant, CWIP, and deferral accounts are combined. Randall pf. reb. 9/23/96 at 8.

287. Citizens explained its accounting for DSM costs as having evolved over several years. When Citizens began accounting for DSM, it utilized the CWIP accounts, tracking DSM costs through a combination of Improvement Orders and new retirement units. In 1993, the Board clarified that DSM costs should be recorded in deferral accounts. Citizens continued to use its CWIP accounts for expenditures, with the intention of transferring the balance at year-end to a deferral account. However, the balances in CWIP for 1994 and 1995, and the cumulative balance in plant in service, were never transferred to the deferral accounts.

The Company is still using the three accounts, plant, CWIP, and deferrals, to record DSM costs. Randall pf. reb. 9/23/96 at 2-4.

288. Citizens should not be allowed recovery on actual DSM costs and ACE dollars until it can prove that the amounts are supported by the general ledger. Schultz/DeRonne pf. 8/23/96 at 22.

b. AFUDC Accounting

289. The $4,318,945 of DSM costs recorded in plant included $549,067 of AFUDC. The same $549,067 appears to also be included in the $1,345,762 of AFUDC recorded to the deferred DSM costs in Account 186 on December 31, 1995. Schultz/DeRonne pf. supp. 11/13/96 at 1.

290. It appears that VED has duplicated approximately $550,000 of AFUDC on DSM costs. Consequently, the VED operations general ledger appears to have an AFUDC error which overstates its DSM assets in excess of $500,000. Schultz/DeRonne pf. 8/23/96 at 18-19.

291. Citizens provided three different responses to DPS Information Request 2-61. All three responses reflect dollars recorded in plant and/or the general ledger, but do not show what is included in the dollars recorded in the general ledger. All of the responses are purported to be accurate and claim to show that the AFUDC in question, i.e., the $550,000 that may have been double booked, was not included in the amounts booked to VED's plant accounts. Exh. DPS-HWS-2 at 7; tr. 12/18/96 at 241-243 (Petit).

292. Citizens claims that a review of the general ledger for VED from January 1, 1994, to December, 1995, shows there was no double counting of AFUDC. O’Brien pf. 12/11/96 at 5; exh. CUC-TLP-1R.

293. The general ledger does not show plant accounts. Tr. 12/18/96 at 227 (Petit).

294. VED continued to accrue AFUDC on some DSM costs, even after the costs were recovered by VED in rates. Schultz/DeRonne pf. 8/23/96 at 19-20.

295. Citizens conceded that VED failed to remove certain amounts from the calculation of AFUDC once those amounts were included in rates. O’Brien pf. 9/23/96 at 19.

296. When calculating AFUDC on DSM costs, VED calculated the AFUDC at a rate that is above the Board-approved return on equity during the periods that the AFUDC was recorded. Schultz/DeRonne pf. 8/23/96 at 19-20.

297. To accrue AFUDC at a rate that exceeds the overall rate of return, let alone the return on equity, is improper. *Id*.

298. In his rebuttal testimony, Citizens' witness Robert O'Brien stated that there were "some real concerns" with Citizens' determination of the correct amount of AFUDC that should be included with DSM costs. O'Brien pf. reb. 9/23/96 at 14.

299. Citizens concedes that it has historically applied the wrong AFUDC rate to DSM costs. In Robert O'Brien's rebuttal testimony, Citizens acknowledged that the rate utilized by VED to calculate AFUDC on DSM costs was incorrect. Citizens agreed that the Board ordered that the last-approved rate of return for the Company should be used as the AFUDC rate for calculating AFUDC earnings on DSM. O'Brien pf. reb. 9/23/96 at 35, 36.

300. Citizens conducted some investigation of AFUDC rates and determined that those rates have in fact been inappropriately applied. The Company corrected those in Exhibit CUC-MAS-1R. Tr. 12/20/96 at 181, 182 (Shepherd).

c. General DSM Accounting Issues

301. The Department identified numerous problems and concerns with VED's accounting for DSM during its review. Schultz/DeRonne pf. 8/23/96 at 14-22; findings 271-300, above.

302. Citizens has admitted in rebuttal that adjustments need to be made to its DSM costs for the following: AFUDC calculation period, AFUDC rate change, deferred cost adjustments, and CWIP balance adjustment. The amounts for each of these adjustments were not provided in the rebuttal. Randall pf. reb. 9/23/96 at 5.

303. Citizens' DSM costs are not known and measurable, and Citizens has numerous problems both in accounting for its DSM/ACE costs, and in the reported DSM costs utilized in its filed cost of service. Since the actual amount of DSM costs incurred by Citizens is not known and measurable, no DSM costs should be allowed in rate base and no amortization

expense for DSM should be allowed in cost of service. Schultz/DeRonne pf. 8/23/96 at 13-14; findings 271-302, above.

Discussion re: Demand-Side Management

DSM & ACE Accounting

The Department argues that Citizens has not met its burden of showing that its DSM costs are known and measurable. The Department also submits that the Company's claim for DSM/ACE cost recovery is not supported by the general ledger. Absent this support and given the general state of disarray of Citizens' books as claimed by the Department, the DPS recommends that no DSM costs be allowed in rate base and no amortization expense for DSM be allowed in cost of service.[67]

In response, Citizens acknowledges that there have been problems in its DSM accounting. Citizens argues however, that the bulk of the DSM costs were reviewed and approved by the Department in Docket No. 5809, and that those figures are reasonable. As to subsequent costs, Citizens states that, notwithstanding the accounting errors, its DSM accounts are consistent with the Company's general ledger and thus we can rely upon these figures.[68]

The parties raise three basic accounting issues: (1) consistency with normal accounting standards; (2) an accounting system that contains discrepancies between individual accounts and the general ledger; and (3) whether, notwithstanding other problems, the Board should accept DSM amounts that had been approved in previous cases. Turning to the first issue, the evidence in the record shows that Citizens' accounting treatment of DSM costs has serious flaws and is not consistent with normal accounting principles.

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67. Schultz/DeRonne pf. 8/23/96 at 13, 22; DPS Supplemental Proposed Findings, 3/26/97 at 5.

68. Citizens' Brief 3/14/97 at 59; Citizens' Reply Brief 3/28/97 at 28-29; Citizens' Reply to the Department's Supplemental Findings, 4/10/97 at 4.

In response to a Department data request, the Company indicated that nearly one million dollars of DSM costs incurred by Citizens through May of 1994 was included in Account 107, a CWIP account, and that over three million dollars was included in Account 101.1, an account that should reflect property plant and equipment. This accounting treatment is not in accordance with FERC accounting rules.

Another problem with Citizens' accounting for DSM costs results from its use of certain deferred asset accounts. In December 1995, Citizens recorded a year-end accrual to Account 186 - Miscellaneous Deferred Debits, for DSM costs, and credited that accrual to Account 183 - Preliminary Survey and Investigation Charges. The preliminary survey account had a credit balance at the beginning of, and during, the test year. This credit balance increased after VED's transfer of amounts from this account to Account 186. In addition to this transfer, on December 31, 1995, VED recorded $181,837 of DSM costs in the deferred asset account, Account 186. These entries are not in accordance with GAAP. Under VED's methodologies, it has transferred more out of certain DSM accounts than was actually included in the accounts.

As to reconciliation of DSM accounts with the general ledger, Citizens argues that it has been able to reconcile certain discrepancies between its filing in support of DSM/ACE recovery and the general ledger. While the Company acknowledges that the current classifications might be confusing, Citizens claims that it can reconcile its DSM activity for 1995 as well as the year-end 1995 general ledger balances related to DSM with the cumulative amounts included in Exhibit CUC-MAS-1.

During the technical hearings, the Company recognized that certain adjustments would be necessary to reconcile Exhibit CUC-MAS-1 with the general ledger. On December 18, 1996, Citizens entered into evidence a document with over 15 adjustments which purports to reconcile Exhibit CUC-MAS-1 with the general ledger. The adjustments reflect payroll which was originally capitalized and amortization from prior years that have not yet been removed from the general ledger, and AFUDC and ACE from prior years that have not yet been added

to the general ledger.[69] The reconciliation also includes the addition of three plant accounts that were not reflected in Exhibit CUC-MAS-1. Nevertheless, the Company then supplied a revised exhibit, CUC-MAS-1R, on December 19, 1996, which states yet another balance for DSM costs and which is not consistent with the reconciliation.[70]

Citizens' adjustments do not match the discrepancies found by the Department. The Department does not believe that Citizens' reconciliation of CUC-MAS-1 with the general ledger as shown in Exhibit CUC-Redirect-8 provides sufficient justification for the total costs requested in CUC-MAS-1. The Department has not only questioned the reconciliation of the $4,318,945 with the general ledger, it has also questioned the net unamortized amount from June 1, 1994 to December 31, 1995. Citizens' direct brief does not address this issue. In its reply brief, Citizens states that while it believes that the additional DSM costs incurred from June 1, 1994 to December 31, 1994 and for calendar year 1995 can also be tied specifically to the general ledger, *that exercise has not been done in connection with this case*.[71] Again in its reply brief on the Department's supplemental findings, Citizens submits that the costs incurred since Docket 5809 can be reconciled to the general ledger. However, "[i]n light of the Deloitte and Touche audit underway, Citizens has not done the reconciliation."[72]

I agree with the Department on this point. Citizens itself has admitted that it has not yet accomplished the task of reconciling the DSM amounts from mid-year 1994 through 1995 to the general ledger. In addition, the amortized DSM amounts in Citizens' revised Exhibit CUC-Redirect-8 and CUC-MAS-1R, appear to be inconsistent with the amount of the amortized DSM balance for test year 1995.

The Company, rather than providing the Board and the parties with a full and complete reconciliation of its DSM accounts with the general ledger, asserts that costs which were approved in prior rate cases and carried forward in the present proceeding should not be

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69. According to a footnote in the exhibit, ACE dollars from prior dockets have not yet been booked on the general ledger. That entry will be made once the independent DSM audit is complete.

70. Exh. CUC-Redirect-8; exh. CUC-MAS-1R.

71. DPS Reply Brief 3/28/97 at 8; Citizens' Brief 3/14/97; Citizens' Reply Brief 3/28/97 at 29.

72. Citizens' Reply to the Department's Supplemental Findings, 4/10/97 at 4.

disallowed. The Company claims that there is no basis in the evidence to support a wholesale disallowance of DSM costs included in rate base and cost of service.[73]

According to the Company's position, Exhibit CUC-Redirect-8 provides a full reconciliation of its DSM costs approved in Docket No. 5809 with the general ledger. Therefore, claims Citizens, the $4,318,945 DSM balance shown in Exhibit CUC-MAS-1 (and later revised to $4,182,610 in Exhibit CUC-MAS-1R) which was approved in Docket No. 5809, should be allowed full recovery. The Company strongly holds the view that the Board should not disallow costs which were approved in prior rate cases and carried forward. However, Citizens provides no supporting legal argument for this view.[74]

I disagree with the Company. In its Order in Docket No. 5809, the Board expressly declared that it "makes no finding as to the justness and reasonableness of these rates on any particular element of the costs of service."[75] In fact, the Board opened the current proceeding specifically for the purpose of reviewing the reasonableness of those rates which had not been the subject of detailed review. Moreover, throughout the hearings in this case, the Department submitted evidence calling into question the Company's costs.

As the Board noted in Docket No. 5809, Citizens enjoys a rebuttable presumption that its expenditures are just and reasonable.[76] With respect to Citizens' DSM costs, the initial question raised by the Department is whether the *dollar amount claimed* for the expenditures has been properly established. There is no need to decide whether the presumption of justness and reasonableness applies to the dollar amount claimed, because even if it does apply, its bubble has clearly been burst by the extensive evidence of the deficiencies in Citizens' DSM accounts.

Consequently, the burden of proof rests with the Company to show that its accounts are in order so that regulators can have confidence that the DSM charges passed through to ratepayers are justified. Citizens, by its own admission and by omission of clear and thorough

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73. Citizens' Brief 3/28/97 at 29; Randall pf. reb. 9/23/96 at 6.

74. Citizens' Reply Brief 3/28/97 at 28-29; Citizens' Reply to the Department's Supplemental Findings, 4/10/97 at 3.

75. Docket No. 5809, Order of 10/31/95 at 39.

76. *Id*. at 35.

reconciliation of its accounts with claims made for recovery of DSM and ACE costs, has most certainly not met this burden. The Company has not carried its burden of substantiating the DSM costs or the accounting treatment of such costs in this case, and its request for recovery of its DSM and ACE costs should be denied.

AFUDC Accounting

The Department raises three concerns with respect to Citizens' accounting for AFUDC. The first is that there appears to be a possibility that Citizens has double booked at least some of its AFUDC accounts. The second is that Citizens has continued to accrue AFUDC on DSM costs, even after the costs were recovered by VED in rates. The third is that Citizens has incorrectly calculated the AFUDC rate and, in addition, the Department claims that VED has accumulated AFUDC on top of AFUDC in each month.[77]

Citizens submitted a number of exhibits and testimony in attempts to respond to the concerns on AFUDC raised by the Department. As to the issue of double booking, Citizens witness Petit claims that the approximately $500,000 in AFUDC in question could not have been booked in 1994 for DSM and no double counting took place. Citizens also submitted a copy of the VED general ledger from January 1, 1994, until December 1995, to show that no AFUDC costs were entered on the general ledger at that time, and that therefore no double counting could have occurred.[78]

However, Mr. Petit agreed that the general ledger (Exhibit CUC-TLP-1R) does not reflect the plant accounts relating to DSM and ACE; it only reflects recorded journal entries for DSM and ACE. When the Department asked where DSM costs as of May 1994 are reflected in the general ledger, Mr. Petit gave three different responses. All three responses reflect dollars recorded in plant and/or the general ledger, but do not show what is included in the dollars recorded in the general ledger.[79]

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77. DPS Supplemental Proposed Findings, 3/26/97 at 7, 8.
78. Exh. CUC-TLP-1R; tr. 12/18/96 at 227-241 (Petite).
79. Exh. DPS-HWS-2 at 7; tr. 12/18/96 at 241, 227-229 (Petite); *see*, DPS Supplemental Proposed Findings 3/26/97 at 7.

The Department argues that none of the exhibits or testimony provided in response to the Department's charges that AFUDC may have been over-booked clearly shows that the dollars that were booked to plant do not include AFUDC. Exhibit CUC-TLP-1R is a summary of Home Office Accounts, not of specific DSM costs, costs recorded in plant, or costs recorded in CWIP accounts. For this reason, the Department concludes that Exhibit CUC-TLP-1R does not verify the amounts or substantiate the costs of the DSM programs for which cost recovery is being requested.[80]

As to the second AFUDC concern, the Department argues that Citizens has continued to accrue AFUDC on DSM costs even after the costs were recovered by VED in rates. Citizens concedes this point.[81]

As to the third AFUDC issue, the Department argues that Citizens calculated the AFUDC amount to add to its deferred costs at a rate that was above its Board-approved return on equity. Citizens concedes that it has incorrectly calculated the AFUDC rate.[82]

In the rebuttal phase, the Company submitted additional evidence recalculating its AFUDC rate to address some, if not all, of the deficiencies previously identified. A footnote to Citizens' Exhibit CUC-MAS-1R states that the carried-forward amount for the unamortized DSM and ACE balances from Docket No. 5809 is reduced by $136,335 to reflect changes in AFUDC calculation and amortization amounts. However, no accounting witness testified as to how that recalculation was done. In addition, Citizens has not established that the underlying DSM amounts upon which the AFUDC rate has been recalculated are reliable.[83]

While Citizens conceded that it may have calculated AFUDC twice on some costs, the Company argues that any effects from this possibility are small. Citizens did historically apply the wrong rate to calculate AFUDC recovery, and the Company included a recalculation of that rate in a later exhibit. Citizens also admitted in rebuttal that it proposes making adjustments to accounting treatment of DSM, ACE and AFUDC. Citizens' additional

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80. DPS Reply Brief 3/28/97 at 8-9.

81. DPS Supplemental Proposed Findings, 3/26/97 at 7; O'Brien pf. reb. 9/23/96 at 19, 35-36.

82. DPS Supplemental Proposed Findings, 3/26/97 at 7; O'Brien pf. reb. 9/23/96 at 19, 35-36.

83. Exh. CUC-MAS-1R; Shepherd pf. reb. 12/11/96 at 3.

adjustments which the Company is proposing to make in the future include changes to the AFUDC calculation period, the AFUDC rate change, deferred costs adjustments, and CWIP balance adjustments. However, Citizens argues that for AFUDC, it can reconcile the DSM activity for 1995 as well as the year-end 1995 general ledger balances with respect to DSM, and that therefore it is entitled to full AFUDC recovery.[84]

I concur with the Department on all three of its AFUDC concerns. While the evidence does not definitively show that AFUDC was double booked, Citizens' records, testimony and responses provided to clarify this issue have only muddied the waters further. Citizens has not met its burden to establish the accuracy of the AFUDC amounts that it seeks to recover, nor has it shown that these amounts can be traced to the appropriate accounts. Thus I cannot recommend that the Company be allowed to recover these costs at this time.

As to Citizens' recalculations, I am not persuaded by Citizens' argument. Citizens has recognized that adjustments need to be made to various AFUDC components. Citizens' immediate remedy from this confusion surrounding AFUDC calculations is for VED to retain an independent CPA firm to audit the DSM accounting from inception. Upon completion of this audit, VED will have the necessary information to make corrections, if any, to the deferral balances and to combine all deferred DSM costs in one group of accounts.[85]

Given the current state of uncertainty in Citizens' accounting for AFUDC, I cannot recommend that the Board grant Citizens recovery for AFUDC costs for which they have not sufficiently established to be accurate. I recommend disallowance of these AFUDC costs in full.

General DSM Accounting Issues

The evidence in this Docket is clear on the redundant, inaccurate, and incomplete nature of the information on financial accounting of VED's DSM programs and ACE and AFUDC accounts. The information provided through the systems that have been used by Citizens, both at the VED and the SAO offices, to account for its DSM programs and ACE and AFUDC accounts have not allowed the Company to meet its burden in this Docket to

84. Randall pf. reb. 9/23/96 at 6, 7.
85. Randall pf. reb. 9/23/96 at 5.

justify rate recovery for its DSM programs, including recovery of ACE and AFUDC amounts. Citizens' DSM, ACE and AFUDC program and financial accounting systems have been in disarray and the testimony on this issue has been unnecessarily confusing and unclear. Given the lack of supporting evidence that can be relied upon, I cannot at this time recommend that the Board allow Citizens to recover in rates any of the dollar amounts for DSM program expenditures or ACE and AFUDC recovery.

Citizens itself has conceded that its accounting for DSM expenditures has been haphazard and confusing.[86] A utility must be able to justify the inclusion of costs that it seeks to recover in rates. This burden must be met before the Board can grant such rate recovery. This burden has not been met by Citizens in this Docket with respect to its DSM expenditures and associated ACE and AFUDC recovery.

Undoubtedly many of the costs for DSM expenditures and recovery of ACE and AFUDC amounts can ultimately be justified since DSM programs and services have been, and continue to be, offered to VED's customers.[87] However, because of the disarray in Citizens' DSM record-keeping, a specific just and reasonable amount for DSM and ACE that is eligible for rate recovery cannot be determined with any confidence. Therefore, at this time, I

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86. Citizens' witness Randall stated the following:

> "The Company understands the confusion caused by this current accounting and can appreciate the Department's frustration in their attempt to monitor VED's DSM activities. A lack of uniformity in DSM accounting among the utilities in the state would undoubtedly make their job more difficult. The Company intends to remedy this problem promptly and in the interim will work with the Department to facilitate their monitoring efforts."

Randall pf. reb. 9/23/96 at 5; *see also* Citizens' Brief 3/14/97 at 59.

87. Since I am recommending that no rate recovery for DSM, ACE or AFUDC be allowed at this time because of the disarray in Citizens' record-keeping, it is not necessary to make findings on the merits of any specific DSM programs or services. However, as the Department notes, much time and expense has been spent in this case on reviewing the Company's performance in designing and implementing DSM programs. To avoid unnecessary duplication of efforts by the Department, Citizens and Board staff, with resulting costs borne by ratepayers, I recommend that the record of this proceeding regarding the design and implementation of Citizens' DSM programs be available for incorporation in future proceedings where those issues are addressed.

recommend that the Board not allow the recovery of any amount for DSM, ACE or AFUDC costs.

Citizens has agreed on numerous occasions in this proceeding that a full and complete audit of DSM costs should be done by an independent party. Citizens, in its reply brief, states that a DSM audit is currently underway. Once the Company is able to get its books in order, it can provide supporting evidence for rate recovery for DSM, ACE and AFUDC expenditures in a future proceeding.[88]

2. DSM Planning, Tracking, Administrative Costs

304. Department witnesses identified numerous problems with DSM accounting and concluded that these costs were not properly documented. The Department was not able to ascertain the actual costs associated with specific DSM programs. Parlin pf. 8/23/96 at 2 to 3.

305. Citizens' accounting practices and record-keeping for DSM planning and implementation are so confused as to make impossible an accurate determination of what the Company has spent for DSM or the validity of its claims for ACE recovery. Steinhurst pf. 8/23/96 at 4; findings 271-302, above.

306. The VED has used a variety of methods to capture data for its DSM programs since 1991. These primarily include hard copy files, Lotus files, Fox files, and the AS 400 mainframe system. The systems have grown and been refined over the years as program activity has required more sophisticated systems. Shepherd pf. 9/23/96 at 29; tr. 11/5/96 vol. II at 7 to 8 (Shepherd).

307. Citizens described its tracking system as consisting of seven different tools or locations. Exh. CUC-MAS-7; tr. 11/5/96 vol. II at 10 (Shepherd).

308. Citizens' method of entering information into multiple tools and then transferring information to a central system is cumbersome, time-consuming and consequently expensive. It has resulted in overlapping and redundant data and the associated costs of maintaining such a

88. CUC Reply Brief 3/28/976 at 30; tr. 12/4/96 at 307; O'Brien pf. reb. 9/23/96 at 21; Kiener pf. reb. 9/23/96 at 6; Shepherd pf. reb. 9/23/96 at 5-6; Randall pf. reb. 9/23/96 at 5.

system. Tr. 11/5/96 vol. II at 42-45 (Shepherd); tr. 11/4/96 at 128-129 (Parlin); tr. 12/19/96 at 226-230 (Parlin); tr. 12/20/96 at 143-144 (Shepherd); Parlin pf. reb. 12/11/96 at 5.

309. Citizens' DSM tracking system is duplicative, inefficient, and inadequate for the purposes of program management. Parlin pf. reb. 12/11/96, at 4-5; Parlin pf. 8/23/96 at 6, 30.

310. The discovery process was distinguished by extreme difficulty in obtaining useful information with which to adequately review the Company's DSM programs. Welch pf. 8/23/96 at 18-19.

311. The Company’s official ledger shows that DSM costs for the period under review (June 1994 through calendar year 1995) were charged in at least three different places. Welch pf. 8/23/96 at 18; tr. 11/05/96 vol. I at 84-85 (Welch).

312. Green Mountain Power Corporation, Central Vermont Public Service Corporation and Washington Electric Cooperative have successfully developed comprehensive tracking systems early in the process of DSM program implementation. Parlin pf. reb. 12/11/96 at 5.

313. Developing a comprehensive system of tracking DSM at the beginning of program implementation would likely have been much less expensive for Citizens in the long term. Parlin pf. reb. 12/11/96 at 5.

314. According to Citizens witness Shepherd, the tools that are in use by the VED's program personnel provide the data needed to adequately manage the day-to-day activities of the VED's DSM programs, to make mid-course corrections to improve programs, and to support resource planners without the expense of developing a "super-system." Shepherd pf. 9/23/96 at 29-30.

315. As the VED developed its systems over time, it believed that any system that would allow it to manage its own programs, and give it the reports that it needed, would be sufficient to meet the Department's requirements for regulatory review. Tr. 11/5/96 vol. II at 6 (Shepherd).

316. Ms. Shepherd concedes that the data the Company maintains has not been sufficient to meet the expectations of the Department for data availability. Shepherd pf. 9/23/96 at 29-30.

317. Citizens asserted that fulfilling the Department's expectations for data tracking and program management would increase Citizens' administrative costs. Shepherd pf. reb. 9/23/96 at 30-31, 37-38, 41-42.

318. Reported administrative costs per megawatt-hour for CUC's DSM programs for each of the years 1992 through 1995 were significantly higher than those reported by Green Mountain Power and Central Vermont Public Service. Exh. CUC-MAS-24.

319. The DPS requested Citizen's electronic tracking data in formal discovery, and in response Citizens provided the AS 400 tracking data. Tr. 11/4/96 at 74 (Parlin).

320. In early June of 1996, the Department learned that Citizens was using another tracking system, the "Fox" system, for some residential programs. Exh. DPS-KEP-7Cor.

321. Subsequent informal requests for electronic tracking tools provided the Lotus-based group tracking tool used for recording completed fuel switches in the Residential Retrofit Program. Parlin pf. reb. 12/11/96 at 2.

322. Citizens duplicated DSM expenditures charged to the accounting system in a "Quicken" data system and assigned a Phoenix contract employee to enter data from the Company's financial records into a Quicken data base to develop a Citizens' management report, presumably so that the Company's DSM management would have a useful summary. The Quicken reports are not necessarily the same as the ledger and cannot be considered an official report of DSM expenditures. Welch pf. 8/23/96 at 18; tr. 11/5/96 vol. II at 77 (Shepherd).

323. Citizens does not intend to phase out any of its multiple DSM tracking tools. Tr. 11/5/96 vol. II at 44 (Shepherd).

324. Citizens has devoted significant staff time to developing various tracking tools, entering information in multiple systems and developing systems to transfer information from one system to another. Parlin pf. reb. 12/11/96, at 5; tr. 12/20/96, at 143-144 (Shepherd).

325. The data systems lack consistent data validation and error checking. Parlin pf. 8/23/96 at 7.

326. Obtaining complete information for a single project may require checking seven sources of information. To find correct data, an employee may need to check several sources. Shepherd pf. reb. 9/23/96 at 30; tr. 11/5/96 vol. II at 46-48 (Shepherd).

327. There is no documentation of where specific DSM data are recorded. A new employee at Citizens would have to ask another employee how to locate specific pieces of data on the tracking system. Tr. 11/5/96 vol. II at 40-41 (Shepherd).

328. A Citizens' employee documented internal difficulties with obtaining adequate information to assess DSM program performance, to complete information requests and to plan day-to-day activities. Exh. DPS-Cross-81.

329. In late 1995, Citizens determined it needed to ensure that its next ACE filing and annual reports would not be double counting. Citizens' Information Systems ("IS") department inquired whether the DSM data should be moved to the AS 400 computer, as it had space available. Tr. 11/5/96 vol. II at 42 to 43 (Shepherd); tr. 12/20/96 at 145 to 146 (Shepherd).

330. When the VED originally considered storing DSM information on the AS 400, the Company believed that the ideal situation would be to put everything together on the AS 400. For that reason, the Company designed the AS 400 to include fields for everything that it could ever possibly want to track. Tr. 11/5/96 at 8, 43-44 (Shepherd).

331. After lengthy discussions, however, the VED encountered barriers and problems that indicated that the AS 400 may not be appropriate for housing all of its DSM data. These obstacles include the cost of programming, data entry needs, lack of resources and incompatible data types. Tr. 11/5/96 vol. II at 43-44 (Shepherd); tr. 12/20/96 at 144 (Shepherd).

332. Data migration to the AS 400 may never be completed. Tr. 11/5/96 vol. II at 43-44 (Shepherd).

333. DPS witness Parlin stated that in her analysis of the AS 400 database, it seemed designed to accept a lot of information but the fields were not filled in. "While the structure is set up in such a way that you could use it, the information itself isn't actually there." The distinction she draws between Citizens on the one hand, and Central Vermont Public Service

and Green Mountain Power on the other hand, is that the other two utilities have the information entered in the database. Tr. 11/4/96 at 81-82 (Parlin).

334. The VED primarily uses the AS 400 to record kilowatt-hour savings and the date of verified installation for installed measures. Those fields as well as account numbers are reliable. This information is kept for purposes of preparing the DSM annual report and calculating ACE. Tr. 11/5/96 at 18-20, 22 (Shepherd).

335. The AS 400 database system was Citizens' primary source for generating ACE and annual reports. Shepherd pf. reb. 9/23/96 at 32.

336. Citizens stated that the only data on the AS 400 which had been confirmed as accurate was the data necessary for DSM annual reporting and ACE calculations. Shepherd pf. reb. 9/23/96 at 32.

337. Citizens decided to use the AS 400 database system to track completed installations only. Parlin pf. 8/23/96 at 5.

338. Citizens did not reliably track DSM measure costs in its AS 400 database system. Parlin pf. 8/23/96 at 6.

339. Resource characterization is an important function of DSM data gathering. Shepherd pf. reb. 9/23/96 at 35.

340. Recommendations for cost-effective custom measures (both fuel switching and electrical efficiency) are necessary for calculating installation rates, which are an important measure of program performance, and are also necessary for resource characterization. Parlin pf. 8/23/96 at 30; Parlin pf. reb. 12/11/96 at 7-8.

341. Citizens did not electronically track recommended custom measures which were not installed. Parlin pf. reb. 12/11/96 at 2.

342. Citizens failed to track adequate information for evaluation and resource characterization of fuel switching and custom efficiency measures. Parlin pf. reb. 12/11/96 at 6-8.

343. Citizens failed to demonstrate that it recorded adequate information for the characterization of fuel switching and custom efficiency measures. Parlin pf. reb. 12/11/96 at 7-8.

344. Citizens did not electronically track the progress of participants as they moved through the process of installing custom measures. Parlin pf. 8/23/96 at 5.

345. Citizens stated that it tracks projects-in-progress primarily through the use of other tools. The Department's review did not uncover any electronic tracking tools used to track the progress of customers installing custom measures. Parlin pf. reb. 12/11/96 at 3.

346. Citizens could not explain why its tracking system did not contain the audit date or date of first contact for two audit-driven programs, the Farm Energy Efficiency Program and the Farm New Construction Program. Exh. CUC-MAS-7; tr. 11/5/96 vol. II at 51-52 (Shepherd).

Discussion re: DSM Planning, Tracking, Administrative Costs

The Department contends that Citizens' tracking system does not contain critical information needed for day-to-day program management, program evaluation, the evaluation of auditors' performance, or regulatory review. In addition, the Department submits that the evidence shows that the actual information in the tracking system was inaccurate.[89]

Citizens argues that the Department's understanding of its DSM tracking tools was incomplete and that it failed to recognize that certain information it sought in one place was available in a different tool. Citizens maintains that the various DSM tracking tools that it has in place enable the VED to manage its programs and comply with reporting requirements of the Board.[90]

The Company has offered to review its tracking system with the Department in an effort to develop a cost-effective system which will meet the Department's requirements for regulatory oversight. Citizens has expressed its willingness to meet with the Department to identify the requirements it would like to see in a tracking system, and then analyze the cost, benefits, and effects on program cost-effectiveness. Citizens maintains that "this approach represents a reasonable resolution of this issue."[91]

I conclude that based on the foregoing findings, Citizens has failed to put into place systems adequate to track information necessary to assess the performance of its DSM

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89. DPS Brief 3/14/97 at 25.
90. Citizens' Brief 3/14/97 at 74.
91. Citizens' Brief 3/14/97 at 74-75.

programs. This further supports my recommendation above that Citizens not be allowed recovery in rates of its costs for its DSM programs. Disarray in data management for DSM programs at VED runs the gamut, from accounting discrepancies and inaccuracies, to the labyrinth of tracking and monitoring systems for the substantive results of its DSM programs. The combination of inaccurate accounting and poor performance-tracking creates an overwhelming obstacle to the Company's request for recovery of DSM costs in rates. I cannot justifiably recommend that ratepayers be charged with costs that have not been shown to be accurate, for programs that cannot be shown to have met their performance goals.

E. Depreciation Rates

347. Citizens' transmission depreciation rates are significantly higher than industry norms. Exh. CVPS-RDS-1 at 6; exh. CVPS-RDS-4.

348. Citizens has not updated its depreciation rates since Docket No. 5656. Tr. 12/3/96 at 65 (Kiener).

349. Citizens performs depreciation studies approximately every three years. The next study would be performed using either 1996 or 1997 year-end numbers. Tr. 12/4/96 at 167 (Mason).

Discussion re: Depreciation Rates

In Docket No. 5656, the Board determined that Citizens' depreciation rates for its major transmission accounts had not been shown to be reasonable, and ordered the Company to employ removal costs for those accounts that were used by Central Vermont Public Service Corporation. Docket No. 5656, Order of 1/26/94 at 43-44, 106. The Company has not updated its depreciation rates since that docket, and the current record shows that Citizens' rates continue to appear unreasonable. However, I do not recommend any corresponding adjustment to the cost of service because there is insufficient evidence in the record to do so.

Instead, I recommend that the Board require Citizens to undertake a depreciation study, and to report the results of that study within one year of the date of the Board's order in this proceeding.

F. AFUDC Rate

350. The Company uses the FERC formula for a multi-jurisdictional utility to calculate Allowance for Funds Used During Construction ("AFUDC"). O'Brien pf. reb. 9/23/96 at 36; tr. 12/4/96 at 314-315 (O'Brien).

351. Citizens' computation of the AFUDC rate for the VED uses a three-year average earned (rather than allowed) return on equity for the Company as a whole. This return includes that on unregulated activities. This three-year average earned return on equity was 13.9 percent for the 1995 FERC Form 1. Tr. 12/4/96 at 314-315 (O'Brien); Koliander pf. reb. 12/11/96 at 5; exh. DPS-REK-4.

352. The FERC Form 1 instructions for calculation of the AFUDC rate state that for the cost of common equity, "enter the rate granted in the last rate proceeding. If such is not available, use the average rate earned during the preceding three years." In the FERC Form 1 for the VED, Citizens does not use the return on equity granted in the last VED rate proceeding, but instead uses the corporate-wide three-year average earned return. This return includes that on unregulated activities. This three-year average earned return on equity was 13.9 percent for the 1995 FERC Form 1. Tr. 12/4/96 at 314-315 (O'Brien); tr. 12/19/96 at 25-27 (O'Brien); Koliander pf. reb. 12/11/96 at 5; exh. DPS-REK-4.

Discussion re: AFUDC Rate

By calculating AFUDC for the VED using the earned return on equity for the entire corporation, including unregulated activities, Citizens has been charging its Vermont ratepayers a rate for funds used during construction significantly higher than the costs of capital that the Board has determined to be just and reasonable in VED rate proceedings. This practice not only imposes excessive costs on ratepayers, but also is inconsistent with the express instructions in the FERC Form 1 for calculating the AFUDC rate.

I recommend that the Board instruct Citizens to calculate AFUDC for the VED using the most recent Board-approved rate of return for common equity and the most recent Board-approved capital structure.

IV. PARTIES' COMMENTS ON INITIAL PROPOSAL FOR DECISION

On May 1, 1997, an initial Proposal for Decision ("PFD") was served on all parties to this proceeding. Pursuant to the schedule established by the Board's Procedural Order of February 18, 1997, the parties were provided the opportunity to submit comments to the Hearing Officer on the initial PFD by May 13, 1997, and to file replies to those comments by May 16, 1997.

I have reviewed the parties' comments, and respond to them below. When appropriate, the PFD and its Attachment 1 have been modified.

A. Comments of the Company

1. Arnold/Saunders' Plant Adjustment ($1,251,342)

Citizens notes that Attachment 1 to the PFD indicates that $2,788,430 has been excluded from gross utility plant-in-service, which apparently includes a disallowance of $1,251,342 for an Arnold/Saunders' plant adjustment. The Company contends that the initial PFD does not include any findings to support the Arnold/Saunders' plant adjustment.[92]

The Company is correct in observing that Attachment 1 reflects a $1,251,342 adjustment that is not addressed in the findings. The initial PFD did not include any findings regarding the proposed Arnold/Saunders' plant adjustment because no party addressed that adjustment in its briefs on the rate investigation.[93] That adjustment was erroneously left in the Attachment 1 spreadsheet, which was based on a spreadsheet that included both the Company's and the Department's proposed adjustments. I have corrected Attachment 1 by removing the

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92. Citizens' Comments 5/13/97 at 1-2.

93. This issue has been addressed in briefs submitted in the prudence docket. Thus, it is possible that the Board in its deliberations may determine that this proposed adjustment to plant is appropriate.

adjustment, and the resulting corrected value for the recommended rate reduction is reflected at pages 5 and 102 of the PFD.

2. Construction Crew Cost Savings

Citizens disputes the $43,750 reduction in cost of service, related to the in-house construction crew, that I recommend in the PFD.[94] The Company first contends that the costs associated with the construction crew would have been capitalized, not expensed. However, the Company does not point to any evidence in the record to support its claim that the adjustment should reflect capitalized costs. The Department proposed this $43,750 adjustment as a reduction in expense in its original prefiled testimony;[95] Citizens did not submit any evidence in rebuttal, nor conduct cross-examination of the Department's witnesses, that would support the capitalization of this cost savings. Furthermore, as noted in the proposed Findings in the PFD (at page 67), these cost savings are related not only to construction projects, but also to maintenance work which would typically not be capitalized. Because Citizens did not rebut the Department's proposed treatment of the cost savings as an expense item, and because Citizens was the party with best access to the relevant information, I continue to believe that it is appropriate to apply the $43,750 adjustment to cost of service rather than rate base.

Citizens further argues that the cost savings are not known and measurable, that it was not necessarily obligated to use the lowest-cost option for line construction and maintenance, and that there is insufficient evidence that the use of outside construction crews was not the least-cost option. I disagree. It was Citizens' own estimate that revealed significant cost savings through the use of in-house construction crews. Citizens itself determined that it was appropriate to switch to the in-house crews. Citizens has not presented any evidence, nor even alleged, that the use of outside contract crews was worth the estimated extra cost of $150,000 per year.

The in-house construction crews were implemented in April, 1996, and thus the full cost savings associated with them will be realized for the period that the rates set in this Docket are to be in effect. Because the test year expenses include the higher costs associated

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94. Citizens' Comments 5/13/97 at 2-3.
95. Schultz/DeRonne pf. 8/23/96 at 106, 108; exh. DPS-HWS-1, sch. C-12.

with outside contract crews for the first few months of 1996, those additional costs must be removed from cost of service, for otherwise rates will include costs that are not being incurred by the Company and that the Company itself has determined are greater than necessary to provide service. *See In re NYNEX*, Docket Nos. 5700/5702, Order of 10/5/94 at 32-35 and Order on Reconsideration of 2/6/95 at 8-9 (imputing cost savings based on the utility's own analysis of savings that would result from replacing analog switches with digital switches).

For these reasons, I continue to recommend that ratepayers not pay for the higher costs of the Company's now-discontinued practice.

3. Account 232.5 Balance

Citizens disagrees with the proposal in the PFD to remove the Account 232.5 balance of $300,139 from rate base, claiming that it was never a rate base item and that because it has now been refunded to the DPS, it is a known and measurable change from test year rate base. However, the Company does acknowledge that the money provided it with a cost-free source of funds.[96]

I continue to recommend the rate base adjustment proposed in the PFD as appropriate. As noted in the PFD (at page 14), Citizens continued to have access to this cost-free source of funds for the first year in which the rates to be set in this docket apply. Just as the Company is entitled to include in rate base a working capital allowance to compensate it for the cost of its own funds that it must advance, so is it appropriate to reduce rate base by the amount of Account 232.5 balance, because that represents an amount for which the Company did not advance its own funds. Thus, the Account 232.5 balance provided a cost-free source of funds available to the Company to meet its working capital requirements, so it is appropriate to offset the working capital requirement by this amount, which is accomplished by removing the $300,139 from rate base.

4. SAO Overhead Allocation to Plant in Service

96. Citizens' Comments 5/13/97 3-4.

The Company contends that it should be allowed to provide in a compliance filing an accounting of the appropriate target adjustment for 1993 and 1994 SAO allocated overhead costs, claiming such a compliance filing to be similar to that which I recommended regarding deferred income taxes associated with allocated plant.[97] However, the compliance filing that I recommended for the accumulated deferred income taxes was one to which the parties had agreed. There has been no agreement with respect to the SAO target adjustment. I continue to recommend that a compliance filing not be used to provide new evidence on this (and any other) contested issue.

5. Unit No. 11 Dam

Citizens' Comments argue for a modification of the PFD's proposed treatment of the Dam No. 11 costs.[98] The Company first contends that complete disallowance of the costs fails to recognize thirty-eight years of benefits to ratepayers from the project. This argument is unconvincing, because the PFD (at pages 37-39) concludes that the specific costs for which Citizens now seeks recovery would not have been incurred but for the Company's imprudence. Imprudently incurred costs should not be passed on to ratepayers.

The Company next argues that because the State had sought dam removal rather than repair after the breach, the Company should recover some of the removal costs. The PFD (at pages 38-39) specifically rejects this argument, and the Company does not present any reason in its Comments that persuades me to modify this aspect of the PFD.

Citizens continues to claim that it should be allowed to recover dam removal costs, "as distinct from costs associated with the breach."[99] The PFD (at page 38) has rejected this argument because the timing and cost of future decommissioning absent the breach are entirely speculative. Citizens' Comments present no basis to change this conclusion about the speculative nature of the timing and costs of decommissioning.[100]

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97. Citizens' Comments 5/13/97 at 4.
98. Citizens' Comments 5/13/97 at 5-6.
99. *Id*. at 6.
100. Citizens does contend that while it "has not identified the precise costs associated with dam removal," it can do so but had not "because it was not relevant until now." *Id*. at 6.

(continued…)

6. Employee Discounts

I am somewhat confused by Citizens' Comments on the employee discount issue. As noted in the PFD (at page 43), the Company in its Reply Brief agreed to eliminate the employee discounts from cost of service.[101] Now, in its Comments on the initial PFD, Citizens appears to argue that the cost of service should be adjusted upward to reflect offsetting costs that the Company claims it will incur as a result of removing the employee discount revenue adjustment.[102] Even if Citizens had not previously agreed to eliminate the employee discounts, my recommendation would remain the same, because as noted in the PFD (at page 43), the Company has not demonstrated that its proposed offsetting cost increase is known and measurable.

7. Pension Cost

Citizens contends that Finding 169 of the PFD is inaccurate in stating that the Department proposed an adjustment to correct for an addition error in the Company's payroll expense calculation schedule; the Company claims that, instead, the adjustment was to reflect the Company's agreement to use 49 employees in that calculation.[103]

Finding 169 is based on the Department's prefiled testimony, which indicates that this proposed adjustment is to correct for "an addition error in the Company's payroll expense calculation schedule."[104] In its Comments, the Company does not provide any citation to the record to refute this testimony. Consequently, based on the evidence in the record, the Finding appears to be correct. (If there is record evidence to support Citizens' contention that this finding is inaccurate, I encourage the Company to bring that evidence to the attention of the Board in the Company's comments on this final PFD.)

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100. (…continued)
Consequently, the Company requests that it be allowed to provide a cost breakdown in a compliance filing, or that the Board impose an equitable cost sharing even without a cost breakdown. This is not a compelling argument. As I have concluded with respect to several other issues, a compliance filing is not an appropriate vehicle to cure an evidentiary insufficiency. It is the Company that seeks to recover part of these costs as ordinary decommissioning costs, and it was incumbent upon the Company to present evidence in support of its theories of recovery.

101. Citizens' Reply Brief 3/28/97 at 49-50.

102. Citizens' Comments 5/13/97 at 6-7.

103. Citizens' Comments 5/13/97 at 7.

104. Schultz/DeRonne pf. 8/23/96 at 48.

Additionally, I note that Citizens does not claim that its requested change to Finding 169 would have any effect on the dollar amount of the adjustment described in that finding. Thus, even if the finding is inaccurate as claimed by the Company, the inaccuracy would have no effect on rates.

8. Relocation Costs

The Company contends that, because the PFD recognizes that some relocation expenses can be expected each year, the test year costs of relocating the Energy Sector from Connecticut to Louisiana should be allowed in cost of service. The Company also claims that there will be additional relocations to the VED "as part of restructuring and as part of the personnel changes Citizens indicated it will be undertaking in Vermont."[105]

I continue to recommend disallowing the costs of relocating the Energy Sector to Louisiana because, as noted in the PFD (at page 65), such an extensive relocation is a non-recurring expense. Because this recommended adjustment removes only the costs of the Energy Sector relocation, the remaining test year expenses will reflect an appropriate level of costs for the more routine, recurring relocations.

While Citizens now contends that it expects to incur a greater-than-typical level of relocation expenses due to restructuring and personnel changes at the VED, Citizens did not present evidence to support this as a known and measurable change.[106]

9. DSM Costs

The Company contends that there is no basis for disallowing ACE costs, "since ACE costs are calculated costs and are not derived from the books of the Company." The Company

105. Citizens' Comments 5/13/97 at 7.

106. Even if there were such evidence, such an adjustment would be subject to possible disallowance in the Board's review of issues in the prudence docket, since the Board might determine that the additional costs were incurred to correct management deficiencies and that thus Vermont ratepayers should not bear those costs.

further contends that the Department has conceded that Citizens' methodology for calculating ACE is capable of performing the correct calculation.[107]

As stated in the PFD (at page 92-93), Citizens has been unable to reliably establish the proper amount for ACE recovery. ACE may be a calculated cost, but for the calculation to be accurate, the Company must have accurate figures in its records upon which to base the calculation. The Findings in the PFD demonstrate significant problems in Citizens' records, both in accounting and in tracking the performance of DSM programs. Even if the Company's ACE methodology is capable of calculating ACE correctly, the Company has failed to establish the accuracy of the figures to which the methodology is applied.

Citizens also claims that complete disallowance of DSM and ACE costs will result in rate shock when the Company is finally able to justify the costs and recover them in rates.[108] To mitigate this predicted rate shock, the Company proposes that it be allowed to (1) recover 75 percent of its DSM and ACE costs and the remaining 25 percent if sufficiently supported in a future case, or (2) recover the full requested amount now, subject to refund to the extent the costs are not supported by the Deloitte and Touche DSM audit.

I do not agree with these proposals. First, the extent to which rate shock may occur is dependent on the amount of DSM and ACE cost recovery that is eventually proven to be justified; without knowing that amount, it is not known whether its recovery will result in rate shock. Second, there is no basis in the record for a 75 percent recovery,[109] and as set forth at length in the PFD, there is insufficient evidence to support inclusion of the full requested amount. Third, Citizens is requesting that it be allowed rate recovery of DSM and ACE costs subject to future true-up; I believe that the more appropriate course of action is that which is recommended in the PFD, which is to verify the costs first, before authorizing rate recovery.

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107. Citizens' Comments 5/13/97 at 8.

108. *Id.*

109. Citizens itself objected to the Department's proposal (presented in the alternative) to disallow 50 percent of the costs because, Citizens contended, there was no basis for the 50 percent figure. Citizens' Reply Brief 3/28/97 at 29-30. There is no more basis for 75 percent recovery than there is for 50 percent.

Finally, Citizens' argument assumes that it "will continue to accrue AFUDC amounts on unrecovered DSM and ACE costs."[110] Because the nonrecovery of DSM and ACE amounts in this proceeding is the result of Citizens' flawed accounting and tracking practices, I recommend that the Board not allow Citizens to continue to accrue AFUDC on these unrecovered balances, from the date of the Board's order in this Docket until Citizens is granted approval to recover those balances in a future rate case. Ratepayers should not have to pay additional carrying costs incurred due to Citizens' errors.

B. Comments of the Department

1. EPA Compliance Costs

The Department argues that there is sufficient basis for finding that Citizens' EPA compliance costs were the result of the Company's imprudence. Specifically, the Department contends that the Company violated the State's groundwater policy (10 V.S.A. § 1410(a)(4)) and thus left itself open to potential liability to civil suit (10 V.S.A. § 1410(c)).[111]

I disagree with the Department. Before addressing the merits of the DPS's argument, however, I note that the Department misconstrues the PFD on this issue. The Department reads the PFD as setting forth "the proposition that direct violation of a statute is a *necessary prerequisite* to a finding of imprudence in this matter."[112] Instead, the PFD (at pages 25-26) indicates that a demonstration that the Company violated a statute would be *one way* to support a finding of imprudence.

Turning to the specific argument that the Department presents in its Comments, that argument still falls short of presenting a sufficient basis for disallowing the EPA compliance costs as imprudently incurred. First, although the Department claims that the Company's discharge of solvents violated a statutory policy, it has not shown that the discharge actually violated a statute. Second, it is not clear that the Company even violated the statutory policy. Third, even if the Company imprudently discharged solvents in violation of statute, there has

110. Citizens' Comments 5/13/97 at 9.
111. DPS Comments 5/13/97 at 3-4.
112. *Id*. at 3 (emphasis added).

been no demonstration that such imprudence contributed to the need for or cost of the clean-up.

Consequently, I continue to recommend that the Company be allowed to include the EPA compliance costs in rate base.

2. DSM

The Department comments on two aspects of the PFD's treatment of DSM costs.[113] First, the Department takes exception to the characterization of the Deloitte and Touche DSM review as an "audit." The Department notes that Deloitte and Touche has stated that its review "does not constitute an audit made in accordance with generally accepted auditing standards."[114]

This is a matter of semantics, not substance. Whatever the Deloitte and Touche review is called, the PFD does not purport to rule on the completeness or sufficiency of that review. Furthermore, in each instance cited by the Department where the PFD uses the term "audit," the PFD is describing positions or assertions of Citizens, and thus is merely stating Citizens' characterization of the Deloitte and Touche review. Thus, no revision to the PFD is necessary regarding the use of the term "audit."

The second aspect of the PFD's treatment of DSM with which the Department disagrees is the failure to make findings on specific program performance. The Department contends that even though the PFD recommends complete disallowance of DSM and ACE cost recovery, findings on specific DSM programs are necessary "to send a message to Citizens regarding its DSM program implementation. . . . To disallow the DSM costs solely on the basis of accounting irregularities does not send a clear signal that Citizens needs to modify its program implementation. In fact, it seems to suggest that Citizens need only correct its accounting and tracking procedures."[115] The Department further contends that findings now

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113. DPS Comments 5/13/97 at 4-7.

114. *Id*. at 5, quoting exhibit DSM-Cross-76 at 2; *see also* tr. 11/14/96 at 168, where Company witness Randall testified that the Deloitte and Touche review is "going to be what's called an agreed upon procedure audit where it's not—I mean since you don't have a set of—regular set of financial statements *you can't do what you and I think of as an audit*" (emphasis added).

115. DPS Comments 5/13/97 at 5-6.

are appropriate, so that the Department's efforts in developing its case on DSM issues need not be duplicated in the future.

I do not believe that the concerns expressed by the Department provide a sound basis for including findings on DSM implementation in this rate investigation PFD. The PFD does not indicate that "Citizens need only correct its accounting and tracking procedures" to be assured recovery of its DSM and ACE costs. By not including findings as to the merits of the Company's DSM programs, the PFD takes no position on those merits.[116]

The Department has presented substantial evidence and argument alleging that Citizens has failed to comply with its DSM obligations. The Board might decide to address this issue in the prudence docket. However, for the reasons set forth above, I continue to believe that such findings would be superfluous in the rate investigation PFD.

3. Medical Costs

The Department contends that the evidence shows that using the corporate-wide medical claim experience results in an excessive level of claims, compared to VED's actual claim experience, and that the Company has not demonstrated that the cost of medical coverage would be greater for VED on a stand-alone basis.[117] This argument fails to acknowledge the presumption of validity that accompanies the Company's costs. The record does not contain evidence sufficient to rebut this presumption with respect to the cost of medical coverage.

4. Updating in Section 227(b) Investigations

The PFD (at pages 58-59) rejects the Department's contention that the Company's inclusion of 401(K) costs constituted an improper update in violation of Board Rule 2.204(G). In its Comments, the Department recommends that the PFD be modified so as not to rule on the applicability of the anti-updating provision of Rule 2.204(G) to this investigation, because

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116. I continue to recommend that the DSM record in this proceeding be available for incorporation in future proceedings which address the design and implementation of Citizens' DSM programs.

117. DPS Comments 5/13/97 at 7-8.

the PFD also includes a sufficient independent basis for rejecting the Department's contention.[118]

I decline to make this requested modification, as it was the Department that raised the applicability of Rule 2.204(G). I also note that, even without Rule 2.204(G), there can be other bases for rejecting late-filed evidence in a Section 227(b) investigation, such as failure to comply with discovery obligations (if the information should have been disclosed in discovery), failure to comply with deadlines for prefiling testimony and exhibits, and equitable reasons.

5. Target Excellence

The Department contends that Citizens should be required to determine the amount of T:E costs in its compliance filing and that those costs should be disallowed because, otherwise, the Company will be allowed to recover an inappropriate cost through its own failure to supply necessary cost information.[119] While I am sympathetic to the Department's argument, I am constrained to base my proposed decision on the evidence in the record, and thus, I continue to disagree with the Department's proposal.

6. Audit Costs

The Department claims that Citizens' corporate audit did not provide any benefit to the Company's Vermont ratepayers, who therefore should not bear any costs of the audit.[120] As stated in the PFD (at page 66), the audit costs are a necessary cost of doing business as a corporation, and thus, I continue to recommend their inclusion in cost of service.

7. Refunds

118. DPS Comments 5/13/97 at 8-9.
119. DPS Comments 5/13/97 at 9-10.
120. DPS Comments 5/13/97 at 10-11.

The Department requests clarification regarding the billing credit by which the PFD proposes to return the refund to customers, and specifically recommends that the Company be required to issue refund checks for any amount by which the credit exceeds the monthly bill.[121] In its Response to the Department's Comments, Citizens contends that the Department's proposal "looms as an administratively chaotic situation" and proposes that, instead, the Company be allowed to present a refund methodology in a compliance filing.[122]

No party addressed the issue of the most appropriate refund mechanism in its direct or reply briefs. Having received no proposals from the parties, the PFD proposed a refund methodology that the Board employed in a previous NYNEX rate investigation.[123] Because the parties have not yet explained in any detail the advantages and disadvantages of various refund mechanisms, I encourage them to address this issue in their comments to the Board, so that the Board may decide on the appropriate mechanism in its final Order (or, in the alternative, the Board may choose to make its final determination through the review of a proposal by the Company in a compliance filing).

C. Comments of the Villages

Barton Village, Inc., Electric Department, Enosburg Falls Electric Department, and Orleans Electric Department (collectively, "the Villages"), provided comments in support of the disallowance from rate base of all plant that the Board determines was acquired or constructed without appropriate justification or permits.[124] I decline to adopt this proposed disallowance, for a number of reasons. This disallowance was not proposed by the Villages or any other party in the direct or reply briefs in the rate investigation. Moreover, the Villages have not identified the specific plant to which this disallowance would apply, nor have they supported this disallowance with proposed findings.[125] Without good cause shown, I am

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121. DPS Comments 5/13/97 at 11.

122. Citizens' Responsive Comments 5/16/97 at 7.

123. *In re NYNEX*, Docket No. 5702, Order of 5/17/95 at 24-25.

124. Villages' Comments 5/13/97 at 2-5.

125. I recognize, however, that the Villages' proposal may fairly be read to request disallowance of those facilities that, in the *prudence docket*, the Board determines to have been acquired

(continued…)

reluctant to add a new issue to the PFD that was not previously briefed and has not now been sufficiently briefed, and that the other parties have had only a short time for response.

Furthermore, as the Villages acknowledge,[126] this recommended disallowance is based on issues that are before the Board in the prudence docket. Thus, I believe that this disallowance should be addressed by the Board rather than me as Hearing Officer.

The foregoing is hereby reported to the Public Service Board in accordance with the provisions of 30 V.S.A. § 8.

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125. (…continued)
without necessary justification or permits. Under this interpretation, the supporting findings would be the findings of the Board in that docket.

126. *Id*. at 2.

This Proposal for Decision has been served on all parties to this proceeding in accordance with 3 V.S.A. § 811.

DATED at Montpelier, Vermont, this 4th day of June, 1997.

s/ Kurt R. Janson
Kurt R. Janson
Hearing Officer

V. BOARD DISCUSSION

The Board hereby adopts the findings and conclusions of the Hearing Officer, except as modified below. We determine that Citizens must reduce its rates, subject to a compliance filing, by $4,349,551 or 16.35 percent retroactive to November 1, 1995. Attachment 1 has been revised to reflect our determinations, and sets forth the calculation of this rate reduction.

A. Account 232.5 Balance

Citizens takes exception to the Hearing Officer's proposal to remove the Account 232.5 balance of $300,139 from rate base.[127] Citizens contends that its refunding the money is a known and measurable change from the test year.

There are reasonable arguments on both sides of this issue. First, as the Hearing Officer correctly notes, the rates that we set in this Order are retroactive to November 1, 1995, and Citizens did not refund the money until November 7, 1996. For the rate year,[128] Citizens had use of this cost-free source of funds. The basic principle that rates should reflect the costs of providing service for the period in which the rates are in effect supports the Hearing Officer's recommendation.

However, in setting rates, we also attempt to adjust test year expenses for known and measurable changes. Citizens is correct in claiming that its refunding of the money could be construed as a known and measurable change.

In its Brief on Exceptions to the PFD, Citizens has proposed the following resolution of this issue: "To make ratepayers whole as a result of Citizens' untimely refunding of the money to the DPS, the Board should order the Company pay to [*sic*] customers for the use of the $300,139 from July, 1993 through November 7, 1996, by applying an annual interest rate equal to the rate of return found by the Board in this proceeding."[129] This is a new proposal by the Company. Originally, Citizens had recommended no refund to ratepayers for the time

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127. Citizens' Brief on Exceptions 5/27/97 at 1-3.

128. The rate year is the first year that the new rates will be in effect—in this instance, from November 1, 1995 to October 31, 1996.

129. Citizens' Brief on Exceptions 5/27/97 at 3 (footnote omitted).

value of these funds.[130] Then, in its comments to the Hearing Officer on his initial PFD, Citizens proposed that it refund the interest cost starting from November 1, 1995.[131]

We conclude that Citizens' new proposal represents a reasonable approach to resolving this issue. This proposal will return to ratepayers the interest costs for the full period for which Citizens had use of the funds, and provide ratepayers with a benefit comparable to that achieved by the rate base adjustment proposed in the PFD. (Whether the interest refund provides greater or lesser value to ratepayers will depend on how long the rates set in this proceeding remain in effect.)

The interest rate applied to these funds should be the rate that Citizens charged ratepayers for the use of funds during the period over which they were held. Consequently, we will require that the interest be calculated using the AFUDC rates that Citizens actually used during this time period (without reflecting the reduction in the allowed return on equity established in this Order).

Therefore, in lieu of the Hearing Officer's proposed rate base reduction of $300,139, the Company shall refund to customers the interest cost of that sum for the period of July 1, 1993, through November 7, 1996, using the AFUDC rates actually used by the VED in that time period, and shall, in its compliance filing, provide a calculation of that interest cost.

B. Unit No. 11 Dam

We adopt the Hearing Officer's findings and conclusions on this issue. We wish to emphasize our agreement with the Hearing Officer regarding the use of a compliance filing for introduction of evidence regarding the potential costs of a planned decommissioning of the dam. Citizens proposes to demonstrate in a compliance filing those costs that it believes would have been associated with a normal removal of the dam, as distinct from the costs actually incurred as a result of the breach.[132] The nature and costs of any such decommissioning program would be speculative and likely to require extensive evidentiary hearings. Citizens is asking the Board to offset the costs associated with the breach of Dam

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130. Citizens' Reply Brief 3/28/97 at 21-22.
131. Citizens' Comments 5/13/97 at 3-4.
132. Citizens' Brief on Exceptions 5/27/97 at 5.

No. 11 based on evidence that the Company did not present. Evidence regarding the costs of a planned dam removal goes far beyond the calculational issues involved in compliance filings.

C. Accrual of AFUDC on DSM Costs

Citizens disagrees with the Hearing Officer's recommendation that the Company not be allowed to continue to accrue AFUDC on the unrecovered DSM and ACE balances, from the date of this Order until the Board approves recovery of the balances in a future case.[133]

We agree generally with the Hearing Officer's proposal, but believe that the starting point for not accruing AFUDC must be the effective date for the rates set in this proceeding. Had Citizens kept its DSM records and accounts in order, it would have been able to recover its legitimate and appropriate DSM and ACE costs in the current docket. Thus, with our modification of the Hearing Officer's recommendation, Citizens will be denied the carrying costs on its unrecovered DSM and ACE balances only for the period from when the Company could have recovered those balances in rates but for its faulty books and records, until it corrects its errors. This mechanism, while not denying substantive recovery of funds properly spent on DSM, prevents ratepayers from paying extra costs as a result of the Company's mistakes, and provides Citizens with an incentive to correct its books and records quickly and to be able to demonstrate that they are indeed corrected. Under our resolution of this issue, Citizens in fact will recover AFUDC for a substantial period of time: from the date the costs were incurred, up to the effective date of the rates that we set in this Order.

D. Rule 2.204(G)

The Department disagrees with the Hearing Officer's conclusion that the anti-updating provision of Board Rule 2.204(G) does not apply to rate investigations, such as this one, initiated under 30 V.S.A. § 227(b).[134] This presents a complex issue, with legitimate textual and policy arguments on both sides.

If we were to accept the Department's position that Rule 2.204(G) applies here, then under that rule we would need to examine factors such as whether the revised evidence is

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133. Citizens' Brief on Exceptions 5/27/97 at 6-8.
134. DPS Brief on Exceptions at 2-3.

necessary for the provision of adequate and efficient service, and whether the costs reflected in the revised evidence will be operative during all of the period during which the rates will be in effect. Citizens did not have an opportunity to demonstrate that the evidence satisfied these requirements of Rule 2.204(G)(2), because, as the PFD notes, the Department did not object to its introduction as allegedly improper updated evidence at the time of its introduction. Thus, we do not have a complete exposition of the issues that we would need to examine if we concluded that the Rule applied here.

Because the issue has not been fully and squarely presented and could have potentially significant effects on future cases, and because the Department's failure to object provides an independent basis for allowing the evidence, at this time we decline to rule on the applicability of Rule 2.204(G) to Section 227(b) rate investigations, and we neither endorse nor reject the Hearing Officer's analysis.

E. Villages' Proposed Plant Adjustments

The Villages recommend that we disallow from rate base two categories of plant: (1) items that have been questioned in the testimony of Robert Arnold and Robert Saunders; and (2) facilities for which Citizens has failed to obtain necessary permits or failed to perform appropriate least-cost analysis.[135] With respect to the first category, we address and adopt this disallowance in Part Two, Subpart II(K)(3) of this Order, which results in a rate base reduction of $1,592,444.

As for the second category, there is some merit to the Villages' assertion that a utility should not include in rate base plant items for which it is required, but has failed, to obtain a Section 248 CPG; otherwise, ratepayers will be paying for plant that, contrary to law, has not been determined to promote the general good and has not been determined to satisfy the Section 248 criteria, including whether the project is economically beneficial. Likewise, it may be inappropriate for a company to include in rate base investments for which it is required, but has failed, to conduct a least-cost analysis; otherwise, ratepayers will be paying

135. Villages' Brief on Exceptions 5/27/97 at 3-11.

for plant that the Company, contrary to its obligations, has not demonstrated to be the least-cost option for serving its ratepayers.

However, in light of the rate levels and penalties that we establish by today's Order, there is no need for us to adopt the Villages' specific recommendation of wholesale disallowance at this time. Were those reductions not to be included in this Order, we would seriously examine the Village's proposed remedy as an alternative.

F. Refund Mechanism

We adopt the Hearing Officer's recommendation that refunds be issued through a bill credit. This is consistent with our practice with prior refunds. Unpaid refund amounts shall continue to earn interest at the rate of 8.89 percent, which is the composite cost of capital as determined in this proceeding, until fully disbursed.

G. Rate Issues Related to Docket No. 5841

The Hearing Officer did not propose a resolution for certain issues in the rate investigation that are intimately related to issues in Docket No. 5841. None of the parties objected to the Hearing Officer leaving these issues for the Board to determine directly.

1. Reduction in Return on Equity

In our findings and conclusions in Docket No. 5841, which follow, we determine that a penalty should be imposed on the Company in the form of a reduction in its allowed return on equity, to reduce that return to 5.25 percent.

2. Regulatory Expenses

The Hearing Officer left it for us to resolve whether the Company should be allowed to recover from ratepayers the costs of the current proceeding. The investigation of Citizens in Docket No. 5841 was required only due to the widespread mismanagement, imprudence, and regulatory violations on the part of the Company that we have found in that Docket. Similarly, as explained in the Procedural History in Part Two of this Order, Docket No. 5859 was opened only as a result of the need to investigate the serious allegations of misconduct by

the Company. Furthermore, the extraordinarily high costs of this proceeding have resulted from the inordinate number of questionable Company actions and practices, including bookkeeping practices, that required extensive investigation.

Because the need for, and extreme costs of, these two Dockets are the result of the Company's own mismanagement, imprudence and regulatory violations, we conclude that none of the costs of the current proceeding, including the costs of the Seymour Laskow investigation that the Department is allocating to Citizens, should be included in rates. Consequently, regulatory expenses should be reduced by an additional $101,167,[136] resulting in a pro forma regulatory expense of $44,581. This represents a reduction of $162,829 from the test year expense.

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136. This represents the amortization of the costs of the current proceeding that is included in cost of service in the PFD. *See* Part One, Subpart III(B)(25), above, including footnote 64.

PART TWO

DECISION ON MANAGEMENT INVESTIGATION

PART TWO

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I. PROCEDURAL HISTORY

On September 1, 1995, we opened Docket No. 5841 to investigate allegations that Citizens had failed to obtain necessary approvals for its investment in facilities and had failed to perform required least-cost analysis for investments, and to consider appropriate remedies for such failures. The scope of this investigation was further defined by a Procedural Order issued on January 4, 1996.

In our Order opening Docket No. 5859, the investigation into Citizens' rates, we consolidated this Docket (5841) with Docket No. 5859.[137] Thus, the procedural history of the two proceeding is the same, and is set out in Part One, Subpart II of this Order.

II. FINDINGS OF FACT AND DISCUSSION

A. Section 248 Permits

Section 248 plays an essential role in protecting Vermont ratepayers, their communities, and Vermont's natural environment. Facilities that fall under Section 248 jurisdiction are exempt from state Act 250 review and subject only to limited local review.[138] 10 V.S.A. § 6001(3); 30 V.S.A. § 224; *City of South Burlington v. Vermont Electric Power Co.*, 133 Vt. 438, 447 (1975). Thus, the Section 248 process provides the only meaningful opportunity for a thorough, independent review of these significant utility projects. By *requiring* notice of the project to be given to local, regional, and state officials, as well to the general public through newspaper notice,[139] Section 248 recognizes both (1) the significant impacts that these utility projects may have on a wide variety of interests and resources, and (2) the importance of the Section 248 process as the only opportunity for government officials

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137. Docket No. 5859, Order of 11/1/95.

138. 10 V.S.A. § 6001(3); 30 V.S.A. § 224; *City of South Burlington v. Vermont Electric Power Co.*, 133 Vt. 438, 447 (1975).

139. 30 V.S.A. §§ 248(a)(4)(C) and (D).

and other interested parties to fully address those impacts. Consequently, Vermont utilities bear significant responsibility to adhere closely and carefully to the Section 248 requirements.

1. 120 kV Transmission Line

353. In Docket No. 5331, the Board issued a Certificate of Public Good ("CPG") to Citizens for the construction and operation of a 120 kV transmission line from Derby Line to Richford. Docket No. 5331, CPG of 10/12/90 at 1.

354. The Board's Order approved the construction of the proposed 120 kV transmission project "in accordance with the evidence and plans submitted in [Docket No. 5331]." Docket No. 5331, Order of 10/12/90 at 39.

355. The Board's Order in Docket No. 5331 granting the CPG described the proposed transmission project generally as the upgrade of "approximately 32.5 miles of existing 46 kV transmission facilities from Derby Line to Richford to 120 kV." The Order described the specific components of the project as follows:

A. Construct a 120/46 kV Substation in Newport immediately adjacent to Citizens' existing transmission and distribution substation and generating plant.
B. Upgrade Citizens' Jay and Richford Substations to include transformation from 120 kV.
C. Install a 120/46 kV transformer in Citizens' existing Highgate Substation.
D. Upgrade Citizens' existing 46 kV line, approximately 3.7 miles, to a single pole, single circuit 120 kV transmission line between Citizens' Border Substation in Derby Line and its Derby Substation in Derby Center.
E. Construct approximately 2.7 miles of single pole, single circuit 120 kV transmission line with 46 kV underbuild between Citizens' Derby Substation in Derby Center and its Newport Substation in Newport.
F. Construct approximately 3.1 miles of single pole, double circuit 120 kV transmission line, one circuit operating at 120 kV and one circuit operating at 46 kV, between Citizens' Newport substation in Newport and its Moshers Tap in Newport.
G. Construct approximately 8.5 miles of single pole, single circuit 120 kV transmission line between Citizens' Moshers Tap in Newport and its Troy Substation in Troy.

H. Construct approximately 3 miles of single pole, single circuit 120 kV transmission line with 46 kV underbuild between Citizens' Troy substation in Troy and its Jay Substation in Jay.
I. Construct approximately 11.5 miles of single pole, single circuit 120 kV transmission line between Citizens' Jay Substation in Jay and its Richford Substation in Richford.

Docket No. 5331, Order of 10/12/90 at 6-8 (citing the prefiled testimony of Citizens' witness James Avery).

356. The Company later modified the design of the project. The Company asserts that the design revisions resulted from concerns about cost and from a desire to enhance the reliability and flexibility of the line. The design modifications include the changes described in Findings 357-363, below. Tr. 1/6/97 at 108-109 (Avery); Avery pf. 8/20/96 at 34; Guyette pf. 8/20/96 at 43.

357. Contrary to its proposal in Docket No. 5331, Citizens did not upgrade the Jay and Richford Substations. The Company claims that the other project revisions (described below), including the change to double circuit construction and the installation of additional equipment in the Irasburg and Newport Center substations, allowed it to eliminate these substation upgrades. Arnold pf. 5/15/96 at 21; Steinhurst pf. reb. 1/24/97 at 5; Oppel pf. 5/15/96 at 24; Avery pf. 8/20/96 at 8, 34; Guyette pf. 8/20/96 at 50; Johnson pf. 8/20/96 at 18; tr. 11/7/96 at 15-17 (Steinhurst); exh. DPS-Cross-73; exh. CUC-MLJ-8.

358. Citizens changed the 2.7 miles of single pole, single circuit 120 kV transmission line with 46 kV underbuild between Citizens' Derby Substation in Derby Center and its Newport Substation in Newport to a single pole, double circuit 120 kV transmission line with one circuit operating at 120 kV and one circuit operating at 46 kV. Arnold pf. 5/15/96 at 21; Oppel pf. 5/15/96 at 24; Guyette pf. 8/20/96 at 43.

359. Citizens changed the 8.5 miles of single pole, single circuit 120 kV transmission line with 46 kV underbuild between Citizens' Moshers Tap in Newport and its Troy Substation in Troy to a single pole, double circuit 120 kV transmission line with one circuit operating at 120 kV and one circuit operating at 46 kV. Arnold pf. 5/15/96 at 21-22; Oppel pf. 5/15/96 at 24; Steinhurst pf. reb. 1/24/97 at 2-3, 31; Avery pf. 8/20/96 at 34; Guyette pf. 8/20/96 at 43; Johnson pf. 8/20/96 at 14-15, 20-21.

360. Citizens changed the 3 miles of single pole, single circuit 120 kV transmission line with 46 kV underbuild between Citizens' Troy substation and its Jay Substation in Jay to a single pole, double circuit 120 kV transmission line with one circuit operating at 120 kV and one circuit operating at 46 kV. Arnold pf. 5/15/96 at 22; Steinhurst pf. reb. 1/24/97 at 2-3, 31; Guyette pf. 8/20/96 at 43; Johnson pf. 8/20/96 at 14-15, 20-21.

361. Citizens changed the 11.5 miles of single pole, single circuit 120 kV transmission line between Citizens' Jay Substation in Jay and its Richford Substation in Richford to a single pole, double circuit 120 kV transmission line with one circuit operating at 120 kV and one circuit operating at 46 kV. Arnold pf. 5/15/96 at 22; Oppel pf. 5/15/96 at 24; Steinhurst pf. reb. 1/24/97 at 2-3, 31; Avery pf. 8/20/96 at 34; Guyette pf. 8/20/96 at 43; Johnson pf. 8/20/96 at 14-15, 20-21.

362. Citizens enlarged its Irasburg substation structure and added switching, a 46 kV Oil Circuit Breaker, and an associated control house. These changes were not included in Citizens' proposal in Docket No. 5331. Arnold pf. 5/15/96 at 23; Avery pf. 8/20/96 at 7-8; Guyette pf. reb. 1/24/97 at 7-8.

363. At its Newport Center substation, Citizens added switching, a 46 kV Oil Circuit Breaker, and an associated control house; these additions were not included in Citizens' proposal in Docket No. 5331. Arnold pf. 5/15/96 at 23; Avery pf. 8/20/96 at 7-8; Guyette pf. reb. 1/24/97 at 7-8; Johnson pf. 8/20/96 at 14.

364. Thus, as actually constructed by Citizens, the 120 kV project consisted of a single circuit 120 kV line from Derby Line to Derby, a double circuit 120 kV line from Derby to Richford, a new 120 kV substation in Newport, installation of 120 kV transformation in the existing Highgate Center Substation, and additions of switching, 46 kV oil breakers and control houses at the existing Irasburg and Newport Center substations. Oppel pf. 5/15/96 at 24; findings 357-363, above.

365. The double circuit portions of the line have been constructed with one circuit on one side of the pole, and the second circuit on the other side of the pole. This is also referred to as "back-to-back" construction. An "underbuild," in contrast, is constructed with the lower voltage circuit beneath the higher voltage circuit. Oppel pf. 5/15/96 at 24; Johnson pf. 8/20/96 at 14-15.

366. Conditions 1 and 2 of the CPG for the 120 kV line provided:

> 1. Prior to the commencement of construction, Citizens Utilities Company shall submit detailed plans including clearing, selective clearing, pole locations, and proposed vegetative screening at highway crossings and substation sites to the Public Service Board for review and approval.
>
> 2. The Board reserves the right to conduct additional hearings and impose additional conditions with respect to the aesthetics of this project.

Docket No. 5331, CPG of 10/12/90 at 1-2.

367. Conditions 1 and 2 of the CPG were supported by findings regarding the aesthetics of the proposed project. In the Discussion accompanying those findings, the Board explained:

> It is apparent from review of this project that there are some road crossings of this reconstructed line that might have significant aesthetic consequences if sufficient steps are not taken to mitigate any impacts. Detailed plans of these crossings that include exact pole locations and screening landscaping must be included with the final plans to be submitted to the Board. Review of these plans prior to final authorization of construction will allow for assessment of these impacts and any mitigation that might be required.
>
> Consequently, by condition of the certificate of public good, the petitioner will be required to provide the Board with this necessary information prior to the commencement of construction so that necessary positive findings under this criterion can be made. The Board will reserve the right to hold additional hearings and impose additional conditions on aesthetics as apart [*sic*] of this review.

Docket No. 5331, Order of 10/12/90 at 33-34.

368. By letter dated February 28, 1992, Citizens submitted to the Board detailed design plans for the fourth segment (Moshers Tap to Richford) of the 120 kV line. The plans show the double circuit construction, but do not indicate that this represents a change from the project as proposed in Docket No. 5331. The plans did not show the elimination of the substation upgrades. Citizens' February 28, 1992, cover letter did not alert the Board to the changes in the project. The Board approved the detailed design plans. Exh. CUC-SAG-8; Guyette pf. 8/20/96 at 44-47; Arnold pf. 5/15/96 at 18; exh. CUC SAG-8.

369. Citizens presented the testimony of Martin Johnson to address environmental impacts of its construction projects. Mr. Johnson owns and operates, and is the President of, The Johnson Company, Inc., an environmental science and engineering consulting firm. He is

also a former Secretary of the Vermont Agency of Environmental Conservation. Johnson pf. 8/20/96 at 1-2; exh. CUC-MLJ-1.

370. Mr. Johnson addressed the impacts of the Company's changes to the 120 kV line under certain of the criteria of 30 V.S.A. § 248. Mr. Johnson's testimony addressed only three of the Act 250 criteria: Criterion 1, air and water pollution; Criterion 4, soil erosion; and Criterion 8, scenic or natural beauty, aesthetics, historic sites, or rare and irreplaceable natural areas. He addressed only these three criteria because he believed them to be the only ones that would be relevant to the revised transmission facilities. However, Mr. Johnson acknowledged that issues of archeological sites and historic sites were outside his area of expertise. Johnson pf. 8/20/96 at 5; tr. 11/6/96 vol. I at 88-89, 97 (Johnson).

371. Mr. Johnson reviewed environmental impacts of the revised 120 kV transmission project after it had been built. Citizens did not consult with him or his firm for advice on the possible environmental impacts of the project revisions prior to construction. Tr. 11/6/96 vol. I at 81 (Johnson).

372. Mr. Johnson testified that it is appropriate for a permittee to make changes to a project that has received an environmental permit if the permittee, in its sole judgment, deems the environmental impacts of the changes to be less than those of the project as permitted. Mr. Johnson believed this to be appropriate even for changes that affect the aesthetics of a project, despite his acknowledgment that permitting authorities often reject a permit applicant's aesthetic analysis. Mr. Johnson also testified that a permittee should not be required to obtain a permit amendment for changes to a permitted project that have beneficial impacts on one environmental resource while negatively affecting another environmental resource, so long as the permittee itself believes the impacts on balance to be beneficial. Tr. 11/6/96 vol. I at 85-87, 101-108 (Johnson).

373. Mr. Johnson testified that the installed 120 kV double circuit pole configuration was typically five feet shorter than the 120 kV single circuit construction with a 46 kV underbuild. Johnson pf. 8/20/96 at 15, 16, 21-22, 31; exh. MLJ-8.

374. To support this claimed reduction in pole height, Mr. Johnson relies on Exhibit CUC-MLJ-4, which shows a pole configuration for a 120 kV single circuit with 46 kV underbuild to be from 65 to 90 feet high, with a "pictured pole height" of 75 feet. Mr.

Johnson's testimony does not cite any findings from Docket No. 5331 or record evidence from that Docket to support these pole heights for the 120 kV/46 kV underbuild configuration. Johnson pf. 8/20/96 at 31; exh. CUC-MLJ-4.

375. None of the tangent structure exhibits supplied by Citizens in Docket No. 5331 resembled Mr. Johnson's Exhibit CUC-MLJ-4 or indicated a range of pole heights. There was no exhibit in Docket No. 5331 portraying the single circuit 120 kV line with a 46 kV underbuild. Steinhurst pf. reb. 1/24/97 at 3; exh. DPS-WS-11.

376. In Docket No. 5331, Citizens submitted diagrams of its proposed 120 kV single circuit pole structure with no underbuild and its proposed 120 kV double circuit structure, which showed the structures to be, respectively, 60 feet high with 52 feet above ground and 70 feet high with 61 feet above ground. In that Docket, we found that the proposed new poles "will be approximately 10 to 15 feet taller than the existing poles . . . ." Those pre-existing 46 kV poles were depicted as 55 feet tall in Citizens' own exhibit in that Docket. In that Docket, we further found, in reliance on Mr. Johnson's testimony, that the new poles "will not be of uniform height but *will vary a few feet* to fit the landscape and electrical considerations." Thus, in authorizing the 120 kV project, our Order contemplated pole heights of approximately 60 to 70 feet. Exh. DPS-WS-11 at 1, 2, 3; Steinhurst pf. reb. 1/24/97 at 2-3; Docket No. 5331, Order of 10/12/96 at 28, 30 (emphasis added).

377. Mr. Johnson's testimony assumed that the 8.5 miles of the line between Moshers Tap and the Troy Substation, and the 11.5 miles of the line between the Jay Substation and the Richford Substation, were originally proposed and approved for a 120 kV with 46 kV underbuild. This assumption was incorrect. In Docket No. 5331, those 20 miles of the line were proposed and approved for single circuit 120 kV, with no underbuild. Johnson pf. 8/20/96 at 14, 21; exh. DPS-WS-11 at 3; finding 355, above.

378. As previously noted, in Docket No. 5331, the exhibits that Citizens presented to portray (a) single circuit 120 kV construction with no underbuild and (b) double circuit 120 kV construction showed a pole height of 60 feet and 70 feet, respectively. Citizens' Exhibit CUC-MLJ-4 in the current proceeding depicts a pole height of 70 feet for double circuit 120 kV construction, but also indicates a range of heights from 65 to 90 feet with an average height of 70 to 75 feet. Thus, for the 20 miles of total line from Moshers Tap to the Troy

Substation and from the Jay to the Richford Substations, Citizens' own exhibits indicate that the Company's revisions to the project resulted in an increased pole height of approximately ten feet, on average. Exh. DPS-WS-11 at 2, 3; exh. CUC-MLJ-4.

379. Because Mr. Johnson (a) did not compare the as-built pole height to the pole height presented in Docket No. 5331, and (b) incorrectly compared 20 miles of the as-built project to 120/46 kV construction rather than to the correct 120 kV single circuit design, we find that Mr. Johnson's analysis of the aesthetic impacts of pole heights cannot be relied on. Findings 373-378, above.

380. In the line sections between Citizens' Moshers Tap in Newport and its Troy substation in Troy (8.5 miles) and between its Jay Substation in Jay and its Richford Substation in Richford (11.5 miles), Citizens installed 120 kV double circuit pole structures with a total height that ranges from 65 to 90 feet. Thus, the installed pole heights for this 20 miles of line are five to 30 feet higher than the single-circuit configuration that was proposed and approved in Docket No. 5331, and vary in height more than the "few feet" that had been proposed and approved in that Docket. Johnson pf. 8/20/96 at 14-15, 20-21; Arnold pf. 5/15/96 at 22-23; Steinhurst pf. reb. 1/24/97 at 31; exh. CUC-MLJ-2; exh. DPS-WS-12; findings 355, 359, 361, 373-378, above.

381. The subjective aesthetic impact of height is much greater than its objective linear measurement. A change in height of as little as five feet can have a significant aesthetic impact. Johnson pf. 8/20/96 at 16; Steinhurst pf. reb. 1/24/97 at 4.

382. Shorter poles cost less than taller ones. Johnson pf. 8/20/96 at 16.

383. In Docket No. 5331, Citizens represented that the proposed change from a pre-existing double circuit 46 kV line to a largely single circuit 120 kV line would result in the "replacement, for the most part, of the present seven conductors with four conductors which are slightly larger in diameter." Citizens further represented that "throughout the entire length of this project, the existing line is double circuited. The proposed project only requires double circuiting or under building in a few areas. This reduction in the conductors is an environmental improvement to that which is there today." Steinhurst pf. reb. 1/24/97 at 5 (quoting prefiled testimony of Citizens witness Martin Johnson from Docket No. 5331); exh.

DPS-WS-11 at 1, 2; Docket No. 5331, Order of 10/12/90 at 30 (citing prefiled testimony of Citizens witness Martin Johnson).

384. By constructing double circuit rather than the approved single circuit structures in the 20 miles of line between Moshers Tap and the Troy Substation and between the Jay and Richford Substations, Citizens increased the number of conductors in those sections from the approved four conductors to seven conductors. Exh. DPS-WS-11 at 1; exh. CUC-MLJ-2; exh. CUC-MLJ-6; findings 355, 359, 361, above.

385. The Board's Order approving the 120 kV transmission project included findings that the proposed project would be expected to reduce line losses to approximately 20,350 MWH per year. This expected reduction in line losses was included in findings regarding the statutory criteria of need for the project (30 V.S.A. § 248(b)(2)) and economic benefit (30 V.S.A. § 248(b)(4)). Docket No. 5331, Order of 10/12/90 at 13, 20.

386. Analyses by the DPS and by Citizens indicate that the 120 kV facilities that Citizens actually built will experience higher losses than the facilities that were proposed in Docket No. 5331. Oppel pf. reb. 1/24/97 at 22; Clayton pf. 8/20/96 at 33.

387. In Docket No. 5331, we found that 120 kV transformation "must be installed in, or adjacent to, the existing substations in Jay, Richford and Highgate." Docket No. 5331, Order of 10/12/96 at 6 (citing the prefiled testimony of Citizens witness James Avery.)

388. Citizens installed the 120 kV transformation in only one of the three substations, at Highgate. Findings 355, 357, above.

389. Citizens performed a substantial amount of site preparation for the construction of the upgraded Jay substation. Citizens excavated a considerable amount of material from the uphill side of the site and deposited it on the downhill side, possibly with additional fill, to level an area many times larger than the original substation. At the time of a site visit by Department witness Steinhurst, there was no evidence of any erosion control measures for this gravel parcel. Steinhurst pf. reb. 1/24/97 at 5.

390. Photographs of the Jay substation site demonstrate the potential for significant soil erosion impact because they depict moderately steep slopes, soil disturbance, and significant lack of growing plants to hold the soil. The disturbed, relatively bare areas

depicted in these photographs are in sharp contrast to the rural, green surroundings. Exh. DPS-Cross-73.

391. According to Citizens' witness Johnson, the Jay substation site is "in the midst of a very scenic mountain landscape." Johnson pf. 8/20/96 at 35.

392. The Jay and Richford substation upgrades were proposed and permitted as part of an engineered transmission system that was determined in Docket No. 5331 to have the capability of performing in a certain way. To delete those substations from the project yet still construct the project raises the potential for significant impacts at least with respect to system stability, reliability, adequacy and least-cost planning. Tr. 11/7/96 at 15-17 (Steinhurst).

393. Condition 7 of the CPG for the 120 kV line provided: "Construction or vehicular travel in wetland areas shall only occur at times of the year when the ground is frozen." Docket No. 5331, CPG of 10/12/90 at 3.

394. Condition 7 was supported by findings regarding wetlands, soil erosion, and necessary wildlife habitat and endangered species. Each of these findings noted that construction in wetland areas will only occur in winter when the ground is frozen. Docket No. 5331, Order of 10/12/90 at 24, 26, 35.

395. Instead of performing wetland construction in the winter months when the ground was frozen, Citizens instead performed the construction in wetland areas during summer months using helicopters and, for the most part, manual labor. Johnson pf. 8/20/96 at 10, 31-32; tr. 11/6/96 vol. I at 81-83, 119 (Johnson).

396. Citizens did not comply with Condition 7 of the CPG issued in Docket No. 5331. Tr. 11/6/96 vol. I at 84-85 (Johnson); findings 393-395, above.

397. Citizens' revisions to the 120 kV transmission project may have had significant impacts on whether the construction met the need, reliability, system stability, adequacy, least-cost planning, aesthetics, wetlands, soil erosion, necessary wildlife habitat and endangered species criteria of Section 248. Findings 373-396, above; Steinhurst pf. 5/15/96 at 21.

Discussion re 120 kV Transmission Line

In Docket No. 5331, we issued a CPG to Citizens for a 32.5-mile 120 kV transmission line project from Derby Line to Richford. That CPG was issued for the project that Citizens

had proposed in that Docket. Citizens has acknowledged that it modified the project from that which it had proposed in Docket No. 5331.

Citizens argues that the changes from the original design were approved by the Board in reviewing the Company's compliance filing in Docket No. 5331. We have previously rejected this argument, in our final Order in Docket No. 5809;[140] for the reasons stated in that Order, including the failure of Citizens to provide notice of the project revisions to all parties, the Board's review of the compliance filing did not constitute approval of the changes to the 120 kV transmission project.

Furthermore, as noted in the Findings above, the compliance filing in Docket No. 5331 was expressly for the purpose of reviewing the aesthetic impacts of highway crossings and substation sites. Citizens could not reasonably expect to obtain Board approval for the significant changes to the entire project by including them in plans submitted for an aesthetics review of crossings and substations, especially without alerting the Board or the parties to those significant changes.

Citizens also contends that the changes in the 120 kV project did not need further Board approval because they did not constitute substantial changes from the project as presented in Docket No. 5331. In Docket No. 4813-A, *In re Vicon Recovery Systems*, we addressed the issue of when changes to a project that has been certificated under Section 248 require further Board review and approval. We stated the following:

> Regarding design changes, Vicon [the permittee] does not dispute the proposition that a certificate for a given facility confers no authority to construct a different one. But the difficulties lie in questions of degree. Virtually any large construction project will undergo some changes in design as construction progresses. It cannot be presumed that the authors of Section 248 were unaware of this fact. Changes which are inconsequential with respect to Section 248 criteria, therefore, should not result in the invalidity of the certificate. The issue thus becomes whether the changes in the Vicon facility's design are substantial by this standard.[141]

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140. Docket No. 5809, *In re Citizens Utilities Company*, Order of 10/31/95 at 36-38.

141. Docket No. 4813-A, *In re Vicon Recovery Systems*, Procedural Order of 3/23/87 at 3-4, incorporated into Final Order of 12/16/87 at 2, 53.

In *Vicon*, we determined that the project changes were substantial because they were "potentially significant" under the Section 248 criteria.[142] We further held that, while it was possible that the revised design would satisfy the standards of Section 248, and perhaps would satisfy them more easily than the original design (as Vicon asserted), "the statute requires the Board to find that the standards are met."[143] We thus required Vicon to file an application for an amended CPG for the revised design.[144]

In the current proceeding, to determine whether Citizens' changes to the 120 kV line require an amended CPG, the DPS recommends that we use the "substantial change" test applied under Act 250.[145] Citizens agrees with the Department that the Act 250 substantial change test provides a reasonable standard for determining when changes to a Section 248-certificated project require an amended CPG. We concur with the parties, and conclude that Act 250's substantial change test provides us and parties with useful guidance for when changes to a certificated project require an amended certificate. There are two reasons for our concurrence in the applicability of the substantial change test. First, that test is entirely consistent with our own precedent from the *Vicon* case.

Second, it will promote regulatory consistency, and thus greater understanding among the regulated community, to use the same test in Act 250 and Section 248 for determining when changes to a certificated project must obtain approval. This is also consonant with the legislature's determination to integrate significant aspects of Act 250 and Section 248; the legislature has incorporated some of the Act 250 criteria into Section 248, and has provided that review under Section 248 will substitute for that of Act 250.

Rule 34(A) of the Environmental Board Rules require an Act 250 permit amendment for any "substantial change" to a permitted project. Environmental Board Rule 34. Those rules define "substantial change" as "any change in a development or subdivision which may

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142. *Id*. at 3-4.
143. *Id*. at 4 (emphasis in original).
144. *Id*.
145. DPS Brief 4/7/97 at 62-66.

result in significant impact with respect to any of the criteria specified in 10 V.S.A. § 6086(a)(1) through (a)(10)."[146]

Thus, in Act 250, to determine whether a permit amendment is required for a permitted project, the Environmental Board first determines whether there has been a change, and second, whether any change may have a significant impact under the Act 250 criteria. This second determination focusses on the *potential* for impacts under the criteria, and thus substantial change is not limited to change that produces an actual impact. *In re Barlow*, 160 Vt. 513, 517-18, 521-22 (1993).

Consequently, we agree with the DPS that, under the second step of the substantial change analysis, the issue is whether the change in the project has the potential for significant impacts, and not whether the change has actual impacts.[147] This follows not only Act 250's practice but also our own prior practice, which requires changes in a certificated project to be approved in an amended CPG if the changes are *potentially* significant under the Section 248 criteria.[148] We can determine whether the changes *actually* comply with the criteria only in a Section 248 proceeding.[149]

Applying the substantial change test and our *Vicon* precedent to the current proceeding, Citizens made the following significant revisions to the 120 kV transmission project: it replaced 20 miles of approved single circuit construction with double circuit construction; it replaced 5.7 miles of approved 120 kV/46 kV underbuild with back-to-back double circuit construction; it failed to construct two of the three substation upgrades that the Company itself had told us were necessary; and it added equipment to two other substations that were not included in the Docket No. 5331 project. Thus, of the 32.5 miles of line, Citizens constructed only 6.8 miles as had been proposed and approved in Docket No. 5331; of the three substation upgrades, Citizens constructed only one. Clearly, the project that Citizens actually constructed was not the project that we had approved in Docket No. 5331.

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146. Environmental Board Rule 2(G).

147. DPS Brief 4/7/96 at 63-64.

148. *See* the discussion of *Vicon*, above.

149. This is consistent with the Hearing Officer's prior statement in this case that the current proceeding will not determine whether any of Citizens' projects that are at issue can satisfy the Section 248 requirements. Order of 9/12/96 at 4.

As noted in the Findings above, Citizens' revisions to the project hold the potential for significant impacts under many of the Section 248 criteria.[150]

The taller poles used on 20 miles of the line present an obvious potential for significant impacts on the aesthetics criterion. Those same 20 miles of line also include three additional conductors. According to the Company's own witness on aesthetics in Docket No. 5331, a reduction in the number of conductors is an environmental improvement. It logically follows that the increase in the number of conductors, for 20 miles of the line, has the potential for substantial adverse aesthetic impacts.

The project revisions have increased line losses, thereby creating a potential significant impact under the need and economic benefit criteria.

Citizens' failure to install two of the three substation upgrades creates potential impacts on system stability, reliability, adequacy and least-cost planning. Although Citizens contends that those upgrades are no longer needed due to the changes to double circuit construction, there is undoubtedly the *potential* for substantial impacts under these criteria, especially since we previously found, based on Citizens' own testimony, that the upgrades were necessary.

We also conclude that the uncompleted site preparation for the Jay substation upgrade has the potential for significant impacts under the aesthetics and soil erosion criteria of Section 248. While Citizens' witness Johnson contended that elimination of the Jay substation upgrade represented an environmental enhancement, this analysis is unconvincing. Mr. Johnson's analysis compares the presence of the upgrade to its absence. This comparison ignores both the fact that substantial site preparation had taken place, and that the relevant question is whether the project as revised by Citizens has the potential for significant impacts under the Section 248 criteria. The project as revised was more than the elimination of the Jay

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150. Citizens failed to present evidence on the potential impacts of the revised project under each of the Section 248 criteria. We need not determine whether this failure alone would provide sufficient basis for us to conclude that an amended CPG is required, because of our conclusion that the project changes present the potential for significant impacts under several of the criteria. However, in order to provide guidance to Citizens and other utilities in the future, we would expect any utility that seeks to establish an exemption from permitting requirements, including an exemption from obtaining an amended CPG for a revised project, to demonstrate comprehensively that the exemption applies.

substation upgrade; it also included the replacement of 20 miles of single circuit line with double circuit construction, with taller poles and more conductors. Although we cannot reach any firm conclusions until we are presented with a Section 248 application for the revised project and have provided parties with notice and an opportunity for hearing, we can safely state that the inclusion of a bare, unused gravel pad "in the midst of a very scenic mountain landscape" as part of a proposed transmission project would raise significant questions under at least the aesthetic and soil erosion criteria.

Citizens' failure to comply with the CPG condition requiring wetland construction to occur only when the ground is frozen creates the potential for significant impacts on the wetlands, soil erosion, and necessary wildlife habitat and endangered species criteria; this is a violation of an explicit CPG condition that was designed to minimize impacts under these criteria. While Citizens again contends that its revised construction technique in fact resulted in less environmental impact, we cannot so determine until we conduct a Section 248 review for the revised project.

Furthermore, in approving the 120 kV project in Docket No. 5331, we noted that the Vermont Wetland Rules did not apply to the project, because they had not been adopted at the time Citizens submitted its Section 248 petition.[151] Once Citizens deviated from the construction that we had approved, however, the project as modified could well fall under the Wetland Rules. Those Rules include the following grandfathering provision, in relevant part:

> Except as provided for below, these rules shall apply to all other land uses occurring within a significant wetland or its associated buffer zone that are commenced after February 23, 1990. These rules shall not apply to any land use for which:
>
> (1) A complete application for all local, state and federal permits related to either the regulation of land use or the protection of wetlands had been submitted as of February 23, 1990, and *where the applicant does not subsequently file an application for a permit amendment* in a way that would have an undue, adverse impact on a protected function of a significant wetland, and substantial construction of the project

151. Docket No. 5331, Order of 10/12/96 at 24.

> commences within two years of the date on which all such local, state and federal permits become final.[152]

Protected wetland functions can include habitat for fisheries, wildlife, and migratory birds, open space and aesthetics, and erosion control.[153] Citizens' change from winter to summer wetland construction could impact habitat, such as spawning, nesting or nursery habitat. This change could affect erosion control, depending upon the details of how the actual work within the wetland was accomplished. For the reasons stated in the findings regarding increases in pole heights and number of conductors, the project modifications could well have an adverse impact on the protected wetland function of open space and aesthetics. Because we have concluded that Citizens must apply for an amended CPG for its 120 kV line, it appears that the grandfathering provision of the Wetland Rules quoted above may not be available.

We have an additional serious concern regarding Citizens' unilateral modifications to the wetland construction protocol that it had proposed, and that we had required by explicit condition, in Docket No. 5331. Even if the revised construction method would not have the potential for a significant impact under the Section 248 criteria, Citizens violated an express permit condition for which it is subject to penalty under 30 V.S.A. § 30. (This penalty is addressed in Part Two, Subpart III(B)(3), below.) That Citizens would ignore an explicit permit condition, rather than request the Board for modification of the condition, is deeply troubling. Even if we were to determine that Citizens' changes in the protocol for wetland construction were appropriate and amend the CPG accordingly, that would not excuse the Company's clear violation of the CPG condition nor shield it from penalties.

Finally, it is important to note that in Docket No. 5331, the Board reviewed Citizens' proposed 120 kV project as a single, integrated project. The Board's findings in Docket No. 5331 that the proposed project met the criteria of Section 248(b)(1), (2), (3), (4), and (7) were made for the project as a whole, not for the various components of the project.[154] By making major revisions to the project such that little of the project was constructed as proposed, Citizens cannot reasonably expect to rely on the findings from Docket No. 5331.

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152. Vermont Wetland Rules § 1.1 (emphasis added).
153. *Id.* at § 5.
154. Docket No. 5331, Order of 10/12/90 at 9-20, 37-38.

2. H. K. Webster Substation

398. Until 1989, Citizens provided electric service to an H. K. Webster plant in Richford by a two-mile long radial 46 kV line and substation. This substation was approximately 16' x 20', fenced on three sides, with a wall of the Webster plant providing the fourth side. Guyette pf. 8/20/96 at 6; Johnson pf. 8/20/96 at 36.

399. H. K. Webster trucks often hit the substation fence, because the mill entrance was adjacent to the substation. Resulting structural damage to the fence presented unsafe conditions, until the fence could be repaired. Many repairs to the fence had to be made over time. Guyette pf. 8/20/96 at 6-7; Henriksen pf. 8/20/96 at 22; exh. CUC-SAG-1B.

400. Because of a lack of voltage regulation, the voltage provided to the Webster plant ranged from 10 to 12 percent too high to 10 to 12 percent too low, depending on the transmission sources and the time of day. Citizens would observe the same voltage swing in the nearby Troy Street substation. A similar low voltage condition sometimes occurred when a tie with the VELCO system was made at Irasburg, depending on system loading and configuration. Guyette pf. 8/20/96 at 7; Henriksen pf. 8/20/96 at 22; exh. CUC-SAG-1.

401. In the mid-1980's, the Webster mill was purchased by Blue Seal Feeds Company. Blue Seal immediately saw the need to upgrade its internal electrical system and demanded that Citizens move the substation away from the building and supply the mill with an adequate service voltage. The Company met with Blue Seal management to resolve the voltage problem. Guyette pf. 8/20/96 at 7.

402. Since the Company did not own the land under the substation (the mill owned it), Citizens agreed to move the substation to a new location near the existing one, still on mill property. At the same time, the Company agreed to address the voltage issue. Guyette pf. 8/20/96 at 7-8; tr. 11/1/96 at 110 (Avery).

403. In 1989, Citizens constructed the new substation at a location approximately 200 feet from the previous site, but still on mill property. Guyette pf. 8/20/96 at 8; Oppel pf. 5/15/96 at 20; Arnold pf. 5/15/96 at 16.

404. The fenced area of the new substation is approximately 100 x 100 feet. Oppel pf. 5/15/96 at 20; Arnold pf. 5/15/96 at 16.

405. The transformer serving the original plant had been rated at 1500-2100 kVA with a voltage rating of 43,800 V to 480 kV; the relocated substation used a 3750 kVA transformer with a voltage rating of 43,800 V to 7200/12,470 kV. The new station also included voltage regulation. Guyette pf. 8/20/96 at 7-8; tr. 11/1/96 at 111 (Avery).

406. Adding a larger transformer and regulators required the VED to relocate and enlarge the substation. Also, the old transformer was PCB contaminated and needed to be replaced. In addition, bringing the substation up to code required a larger area. Guyette pf. 8/20/96 at 9; Henriksen pf. 8/20/96 at 22.

407. The H. K. Webster mill in Richford appears to be a relatively old industrial mill that has been added to from time to time. It consists of a main brick building of several stories with many out-buildings extending in different directions. The visual impression of the place is that of industrial America as it appeared a century ago, except that it is now energized by electricity instead of a coal or wood-fired boiler. Johnson pf. 8/20/96 at 36.

408. Citizens' witness did not review whether there were any historic or archaeologic resources that may have been impacted by the replacement of the substation. Tr. 11/6/96 vol. I at 93, 96-96 (Johnson).

Discussion re H. K. Webster Substation

Under Section 248 of Title 30:

> Except for the replacement of existing facilities with equivalent facilities in the usual course of business . . . no company . . . may begin site preparation for or construction of an . . . electric transmission facility within the state which is designed for immediate or eventual operation at any voltage . . . unless the public service board first finds that the same will promote the general good of the state and issues a certificate to that effect.[155]

No party contests that the H. K. Webster Substation (or the Burton Hill Substation, discussed below) is an electric transmission facility.[156] Instead, the parties disagree only on the key issue of whether the replacement of the H. K. Webster Substation constituted "the replacement of existing facilities with equivalent facilities in the usual course of business."

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155. 30 V.S.A. § 248(a)(2).

156. *See*, for example, Docket No. 5169, Order of 12/23/86, in which Citizens filed for and received a CPG for changes to its Sheldon substation; *see also* Citizens' discussion of that docket in its Reply Brief of 4/18/97 at 59-61.

Both Citizens and the Department recommend that we apply the Act 250 substantial change test to situations, such as this, to determine whether changes to an uncertificated project constitutes "the replacement of existing facilities with equivalent facilities" and thus is exempt from the CPG requirement of Section 248.[157]

We disagree with this particular proposed use of the substantial change test. Here, the issue is whether a project *initially* requires a CPG, not whether changes to a certificated project require an amended CPG. We have previously addressed this issue of what constitutes "replacement of existing facilities in the usual course of business." In Docket No. 5514, we reviewed a proposed change to a Green Mountain Power Corporation ("GMP") transmission line and adopted a three-step process:

> 1. An assessment must be made of whether the changes proposed are within the existing right-of-way. If the facility or change cannot be accommodated within the existing right-of-way, a certificate of public good will most likely be required.
> 2. The proposed changes to the line should also not significantly alter the capacity of the existing line. Again, if the basic capabilities or capacities of the line change, the presumption that the new or altered line is an equivalent line would be lost and Board approval would be required.
> 3. Finally, if the above two criteria are satisfied, an assessment should be made as to whether the changes will actually result in the installation of "equivalent" facilities in other respects that are relevant to the criteria set out in 30 V.S.A. § 248. To make this determination, the proposal must be reviewed to determine if there will be any **significant** impacts under any of the criteria of 30 V.S.A. § 248. If such an impact is evident, again the presumption that the line is the replacement of an existing facility with an "equivalent" facility would be lost and a petition for a certificate of public good must be filed.[158]

At the time, we described this test as "the thought process that should be used when evaluating whether a facility has been replaced with an 'equivalent facility.'"[159] At this time, we see no reason to abandon the analysis we have previously applied to interpret Section 248(a), and thus no reason to adopt the substantial change test as the parties have proposed.

Moreover, the interpretation of statutory language must attempt to conform with legislative intent. While the legislature in Section 248 sought to protect the values embodied

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157. Citizens Brief 4/7/97 at 39-43; DPS Brief 4/7/97 at 20; Steinhurst pf. 5/15/96 at 18-21.

158. Docket No. 5514, Order of 7/29/91 at 10 (emphasis in original).

159. *Id*. at 15.

in the criteria of that Section, and thus use of the substantial change test could arguably help effect that legislative purpose, the legislature has in fact specifically addressed the issue of whether projects that do not have potentially significant impacts under the Section 248 criteria must obtain a Section 248 CPG. Rather than exempt such projects, the legislature has provided an expedited process by which the project must, nonetheless, obtain a CPG.[160] The Section 248(j) procedures expressly require a CPG even if the Board finds that the project "does not raise a significant issue with respect to the substantive criteria of [Section 248]."[161] It would thus be inconsistent with the express statutory requirements for us to conclude that a project would be exempt from the CPG requirement solely on the basis that it did not present the potential for significant impacts under the Section 248 criteria.

The changes to the H. K. Webster substation included moving it to a new location 200 feet from the previous site, expansion of the fence perimeter from 16 feet by 20 feet to 100 feet by 100 feet, installation of a larger transformer, and inclusion of voltage regulation equipment. The magnitude of physical changes at this substation have clearly resulted in a new substation that is not "equivalent" to the previous one. The new substation occupies a different location, with an area of 10,000 square feet, over thirty times larger than the original substation (320 square feet). Its transformer has much greater capacity and higher voltage levels. Under the standard that we adopted in Docket No. 5514, this facility is not by any means "equivalent" to the old H. K. Webster substation.

Even if we were to apply the substantial change test to these modifications, we would easily conclude that the changes to the substation presented the potential for significant impacts under many of the Section 248 criteria. Increasing the size of the substation by a factor of more than thirty and moving it to a different location within this old industrial mill complex may have significant impacts on aesthetics and historic sites. As the Company did not perform an appropriate least-cost analysis for the changes to this substation (see Part Two, Subpart II(E)(4)(a), below), the changes raise the possibility of substantial impacts under the need and economic benefit criteria of Section 248.

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160. 30 V.S.A. § 248(j).

161. 30 V.S.A. § 248(j)(1)(C). If the Board finds that there is a significant issue under the criteria, a hearing is required on all such issues. 30 V.S.A. § 248(j)(2).

3. Burton Hill Substation

409. In 1989, Citizens replaced its Burton Hill substation. Guyette pf. 8/20/96 at 2-3; Arnold pf. 5/15/96 at 11, 16; Oppel pf. 5/15/96 at 13-14.

410. The previous Burton Hill Substation consisted of an approximately 25-by-30 foot fenced area with a 4-pole structure housing a 1500 kVA transformer, which stepped from 46 kV to 7.2 kV/12.47 kV. The substation was approximately 30 to 40 years old. Guyette pf. 8/20/96 at 2-3; Oppel pf. 5/15/96 at 13; exh. CUC-SAG-1A.

411. On June 4, 1988, a bird's nest caused a fault on the recloser feeding Glover. The fault caused both the recloser and the 1500 kVA transformer at the substation to fail. The transformer had to be replaced. Guyette pf. 8/20/96 at 3; Oppel. pf. 5/15/96 at 13.

412. To restore service immediately, Citizens installed another transformer in the existing fenced area. Guyette pf. 8/20/96 at 3.

413. However, the size of the substation was too small to meet National Electrical Safety Code clearance requirements and to allow for adequate access to the equipment inside the fence. Furthermore, the Company had determined that the wooden switching had "outlived its useful life," and that drainage at the substation should be improved. Consequently, Citizens decided to rebuild the substation, which it did in 1989. Guyette pf. 8/20/96 at 3; Oppel pf. 5/15/96 at 14.

414. The Company rebuilt the substation near the pre-existing substation, on a 0.97 acre parcel which may have included the location of the original substation. Guyette pf. 8/20/96 at 3; Oppel pf. 5/15/96 at 14.

415. As part of the reconstruction of the substation, the fenced area was increased to approximately 100 feet by 100 feet. Guyette pf. 8/20/96 at 3; Oppel pf. 5/15/96 at 14.

416. As part of the reconstruction, the capacity of the Burton Hill Substation was increased from 1500 kVA to 2500 kVA. The new 2500 kVA transformer was a spare unit from the Company's inventory. The 2500 kVA transformer was adequately sized for the load. Guyette pf. 8/20/96 at 3-4; Oppel pf. 5/15/96 at 13-14.

417. The new Burton Hill Substation is located within an agricultural and rural residential area. Johnson pf. 8/20/96 at 42; exh. CUC-MLJ-13.

Discussion re Burton Hill Substation

Citizens' reconstruction and relocation of the Burton Hill Substation in 1989 was not a replacement of the pre-existing substation with equivalent facilities, and thus was not exempt from Section 248. Similar to the H. K. Webster Substation, this substation reconstruction involved a different location, with an area of 10,000 square feet, over thirteen times greater than the original substation (750 square feet). Its transformer has substantially greater capacity. The physical changes have produced a new substation that is not "equivalent" to the pre-existing one.

As with the H. K. Webster Substation, even if we were to apply the substantial change test, the changes to the Burton Hill Substation presented the potential for significant impacts under the Section 248 criteria. Substantially increasing the footprint of the substation and moving it to a different location may have significant impacts on aesthetics in this rural, agricultural area. The changes to this substation also raise the possibility of substantial impacts under the need and economic benefit criteria, as Citizens did not perform an appropriate least-cost analysis for the project (see Part Two, Subpart II(E)(4)(a), below).

4. Richford 46 kV Transmission Line Relocation

418. The line that feeds the H.K. Webster plant from Richford is approximately two miles long. Before 1989, approximately half of the line was built with steel poles erected in the 1920's. In 1989, the Company decided to re-pole the entire steel pole segment due to age and condition. As the VED crews were replacing the poles, a customer asked them to move a pole that had been located approximately 20 to 30 feet from his house to a location approximately 40 feet away. Guyette pf. 8/20/96 at 29.

419. The pole locations both before and after relocation are within the Company's right-of-way. The line both before and after relocation crosses the Missisquoi River and its flood plain. Moving the poles resulted in the line crossing the river and flood plain approximately 250 feet west of the old crossing. Guyette pf. 8/20/96 at 30; Arnold pf. 1/3/97 at 15.

Discussion re Richford 46 kV Transmission Line Relocation

Typically, the relocation of a transmission line that occurs as part of the ordinary replacement of aged facilities and lies entirely within the pre-existing right-of-way would constitute replacement with equivalent facilities in the ordinary course of the utility's business.[162] Here, the only circumstance that may change this conclusion is the change of 250 feet in the river and floodplain crossing. This portion of the relocation could have had impacts on the criteria of shorelines, wetlands, water quality, and aesthetics. However, there is insufficient evidence in the record for us to conclude that this change in the river crossing possessed the potential for significant impacts under these criteria, and thus we cannot conclude at this time that Citizens' relocation of the Richford 46 kV line required a CPG under Section 248.

5. Island Pond-to-Bloomfield Line

420. In Docket No. 4705, the Board granted Citizens permission to acquire the Vermont territories of New Hampshire Electric Cooperative ("NHEC")[163] and Public Service Company of New Hampshire ("PSNH").[164] Two of the reasons that the Board awarded the territories to Citizens (rather than to GMP, which was actually the higher bidder) was that Citizens' service territory was contiguous to the new territory and that Citizens would be able to serve the new territory using what was, at that time, relatively inexpensive Hydro-Quebec power. Avery pf. 8/20/96 at 11-12; Docket No. 4705, Order of 4/15/83 at 11, 12.

421. When Citizens bought the service territories from NHEC and PSNH in 1983, it established two interconnections with Hydro-Quebec in the Canaan area to be able to use Hydro-Quebec as the primary source of supply for the Canaan and Norton region. The Company anticipated that PSNH would be a back-up source for the Canaan and Norton

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162. Assuming, of course, that the new facilities are indeed equivalent. For example, the replacement of a 46 kV transmission line with a 120 kV transmission line would not involve equivalent facilities.

163. The NHEC territories were located in the towns of Averill, Canaan, Lemington, and Norton.

164. The PSNH territories were in the towns of Bloomfield, Brunswick, Canaan, Guildhall, Lemington, and Maidstone.

region, and as a primary source for Bloomfield and Guildhall until the Company was able to extend service from Hydro-Quebec to these regions. Avery pf. 8/20/96 at 12.

422. The Hydro-Quebec source proved to be less reliable than expected, because the Norton and Canaan area was at the end of a very long 25 kV distribution line. Hydro- Quebec outages caused the Company to continually rely on PSNH for back-up power, at a cost of about $200,000 a year. Avery pf. 8/20/96 at 13; Guyette pf. 8/20/96 at 19.

423. Consequently, the Company looked for an alternate, more economical way to serve this area. That included negotiating with PSNH about changing the firm back-up service into a non-firm back-up service, thereby eliminating a ratchet provision applicable to the back-up service. Avery pf. 8/20/96 at 13.

424. Sometime around 1984, Hydro-Quebec notified Citizens that, within the following five years, it should expect that, due to growth on the HQ system, HQ would no longer have the capacity in the Canaan area to serve the loads it then currently served via the interconnections at Canaan and Norton, including the three-phase Ethan Allen Beechers Falls plant. Avery pf. 8/20/96 at 13; Guyette pf. 8/20/96 at 19.

425. After considering several alternatives, the Company filed a petition with the Board (Docket No. 5117) requesting approval of the construction of a 46 kV line from West Charleston to Bloomfield, Vermont. When the Department opposed that proposal, the Company modified its request to seek approval to construct the 46 kV line only to Island Pond. Avery pf. 8/20/96 at 12-13; Docket No. 5117, Order of 9/30/87 at 3.

426. In Docket No. 5117, the Board approved Citizens' modified proposal for a 46 kV line from Charleston only to Island Pond. The Board stated in its Findings:

> Current power demands could be carried from Island Pond to Bloomfield and Guildhall over existing 12.47 KV distribution lines. If load growth in the Bloomfield and Guildhall areas exceeded that carrying capacity at some future time, then the Company would seek authority to extend its 46 KV transmission capacity east from Island Pond.

Docket No. 5117, Order of 9/30/87 at 6-7.

427. In that Docket, the Board also authorized Citizens to construct a 2.3 mile, 12.47 kV line along Route 105 in Brunswick and Ferdinand (referred to in the current proceeding as the "Wenlock Gap"). The Board's Order referred to this line as a "distribution line," but also

concluded, based on General Order 51, that "the line's use as a tieline for interconnection purposes brings its construction within the scope of §248." Avery pf. 8/20/96 at 17-19; Guyette pf. 8/20/96 at 17-18; Docket No. 5117, Order of 9/30/87 at 7-8 and n. 1; exh. CUC-MLJ-17.

428. In Docket No. 5117, the Board also authorized Citizens to construct a distribution substation in Island Pond, in the Town of Brighton, Vermont, in order to convert from 46 kV transmission to 12.47 kV distribution voltage. As proposed in that Docket, the substation would provide three distribution feeds, one of which would serve distribution loads to Bloomfield and Guildhall. Citizens' proposal in that Docket would allow future 46 kV expansion east to Bloomfield. Avery pf. 8/20/96 at 8-9; exh. CUC-MLJ-15; Docket No. 5117, Order of 9/30/87 at 6-7.

429. In building the Island Pond Substation, Citizens never constructed the third 12.47 kV feed to Bloomfield, and instead installed a 46 kV/19.9 kV transformer to serve the line to Bloomfield. The substation was constructed with the 46 kV/19.9 kV transformer serving a single phase of the Island Pond-to-Bloomfield line, with the expectation that two additional circuits of the line would be connected to the transformer. Avery pf. 8/20/96 at 9-10.

430. The Company contends that at a site visit of the West Charleston-to-Island Pond line, Island Pond Substation, and Wenlock Gap line, Dexter Merritt of the DPS attended, and observed: (a) the Wenlock Gap line constructed as a three-phase, 19.9 kV/34.5 kV line; (b) the Island Pond Substation constructed in its current configuration; and (c) approximately one-half mile of three-phase 19.9 kV/34.5 kV line extending east from the substation. Avery pf. 8/20/96 at 19.

431. After closing the Wenlock Gap, the Company considered several options for serving the Bloomfield area and beyond. Citizens ultimately decided to use three-phase, 19.9 kV/34.5 kV construction. The Company claimed a number of reasons for this choice, including ability to serve the load, reliability, worker safety, and the potential for having to serve a three-phase load in Canaan (the Ethan Allen Beechers Falls plant) if Hydro-Quebec stopped serving the Company's Canaan loads. Guyette pf. 8/20/96 at 18-22.

432. The Company constructed the Island Pond-to-Bloomfield line as a "fill in" project during 1991 and 1992. The line is approximately fourteen miles long, and runs from

the Company's Island Pond Substation in the Town of Brighton to the Town of Bloomfield. Avery pf. 8/20/96 at 20; Guyette pf. 8/20/96 at 17; Johnson pf. 8/20/96 at 51; exh. CUC-MLJ-15.

433. As constructed, the Island Pond-to-Bloomfield line is capable of operating at 34.5 kV; i.e., its components (conductors, poles, crossarms, and insulators) allow operation at that voltage. The line cannot actually be operated at 34.5 kV until 5.2 miles of additional line are completed and the transformer at the Island Pond Substation is changed. Citizens also presumes that it would not increase the line's voltage to 34.5 kV until a three-phase load is present at the end of the line. Guyette pf. 8/20/96 at 21-22; Oppel pf. 5/15/96 at 3-5.

434. The Island Pond-to-Bloomfield line is physically constructed as would a typical 19.9 kV/34.5 kV distribution line, using single wood poles, cross arms, and a neutral conductor located on the pole below the crossarm. Henriksen pf. 8/20/96 at 15.

435. There is virtually no difference in the Rural Electrification Association standards for 34.5 kV distribution and 34.5 kV transmission construction. Oppel pf. reb. 1/24/97 at 25; exh. DPS-LJO-26.

436. The Island Pond-to-Bloomfield line serves one megawatt or less of load along its route and in Bloomfield. The line serves approximately 80 individual customers via 19.9 kV to 120/240 kV transformers mounted on the poles and energized from the line. Guyette pf. 8/20/96 at 16; Henriksen pf. 8/20/96 at 15.

437. Citizens' customers between Island Pond and Bloomfield are still being served from PSNH. Oppel pf. 5/15/96 at 13; tr. 10/29/96 at 127 (Henriksen).

Discussion re Island Pond-to-Bloomfield Line

The Board's General Order 51 provides that, for purposes of Section 248, a transmission line:

> . . . is a line and related facilities whose primary purpose is the delivery of electric power in bulk to a distribution system or portion thereof which serves individual customers. The Public Service Board will assume that each of the following two types of lines are transmission lines within the meaning of 30 V.S.A. 248, as amended, in the absence of a specific declaration by the Public Service Board to the contrary: (1) any line or facility designed to operate or capable of

> operating over 30 KV; and (2) any tie-line designed to operate or capable of operating at any voltage. The tie line is a line whose primary purpose is to interconnect portions of an electric system for area reliability purposes. Specification (1) above does not exclude any line of lower voltage if it would function primarily as a transmission line within the meaning of the first sentence of this definition.
>
> A distribution line (or facility) whose principal purpose is to serve individual customers, and whose service to individual customers is physically interrupted only by a transformer and service drop, remains under the jurisdiction of the Environmental Board and District Environmental Commission as provided by Act 250, 10 V.S.A. 6001.

General Order 51.

The Island Pond-to-Bloomfield line is capable of operation at 34.5 kV. While Citizens contends that whether the line is capable of operation at this voltage "depends on what parts of the line one examines,"[165] it is clear that the line itself, as constructed, is capable of operating at 34.5 kV. While other facilities would have to be completed or upgraded before *actual operation* at 34.5 kV, it is the capacity of the line to operate over 30 kV, and not its actual operation, that triggers Section 248 jurisdiction, pursuant to General Order 51.[166]

Because the Island Pond-to-Bloomfield line is capable of operation at 34.5 kV, and because Citizens has not received a declaration from the Board that the line is not a transmission line, the line requires a CPG under Section 248.

Even apart from its voltage level, we conclude that the Island Pond-to-Bloomfield line is a transmission line. Although the line provides service directly to approximately 80 customers along its route, the history of the line demonstrates that the primary purpose for which Citizens constructed the line was "the delivery of electric power in bulk to a distribution system or portion thereof which serves individual customers," namely, the individual customers on the distribution systems formerly owned and served by NHEC and PSNH.

Furthermore, even if the line is not considered to have a primary purpose of delivering power to the former NHEC and PSNH distribution territories (because those territories are still being served by Hydro-Quebec), it would then constitute a tie line. This is because its primary purpose, if not the delivery of bulk power to the former NHEC and PSNH

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165. Citizens Brief 4/7/97 at 117.

166. *See In re Citizens*, Docket No. 5625, Order of 3/28/94 at 27 n. 34.

distribution systems, is the interconnection of those systems with the VED system for area reliability purposes.

Citizens contends that it should be excused from its failure to obtain any necessary Board approval or Board determination that approval was not required, because: (a) a Department engineer was present at a site visit of the Wenlock Gap three-phase 19/9 kV/34.5 kV line, the Island Pond Substation with the second bay in place, and one-half mile of three-phase 19.9 kV/34.5 kV line extending east toward Bloomfield; and (b) in Docket No. 5117 it disclosed its plans to extend its line east to Bloomfield.[167] These arguments are unconvincing. First, it is Citizens' responsibility to ensure that it obtains all necessary permits for its facilities, a responsibility that it cannot disclaim by relying on the lack of protest by a Department engineer.[168]

Second, even though the Company indicated in Docket No. 5117 that it expected in the future to extend its 46 kV line east to Bloomfield, the fact that that very docket was reviewing a 46 kV line would have created the reasonable expectation that Citizens would not actually construct that future eastward extension without first coming to the Board for approval. This is especially true given that Citizens had originally sought Board approval for that eastward line in Docket No. 5117, but deleted it when faced with opposition from the Department. The Board's Findings in that Docket expressly noted that Citizens would return for further authorization if it wished to extend the 46 kV transmission capacity east from Island Pond. Those Findings also concluded that the Wenlock Gap line, although to be constructed at 12.47 kV, constituted a tie line because it served an interconnection function. Thus, Citizens should have been on notice from our Order, as well as its own conduct, in Docket No. 5117 that any further extension east of these facilities would very likely require additional approval under Section 248.

6. Franklin Service Territory

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167. Citizens Brief 4/7/97 at 101-103.

168. Even had the Department somehow agreed that no approval under Section 248 was required, it is the Board that must make the determination as to the applicability of Section 248, not the Department.

438. In 1993, Citizens acquired the system of the former Franklin Electric Light Company, pursuant to the Board's Order in Docket No. 5637 authorizing the acquisition. As recited in that Order, Citizens agreed with the Department that it would "make physical plant improvements in an expeditious manner, in order to provide service at stable and adequate voltage levels and power factor." Docket No. 5637, Order of 7/23/93 at 9.

439. Citizens decided to serve the Franklin service territory out of its Sheldon Springs substation, rather than from the Village of Swanton, which supplied Franklin prior to the acquisition. Citizens' primary reason for this decision was the savings to be realized by supplying the power from its own system. Avery pf. 8/20/96 at 32; Guyette pf. 8/20/96 at 30-31.

440. In order to serve the Franklin area from the Sheldon Springs Substation, Citizens constructed approximately 5800 feet of new line, consisting of 4000 feet in one segment and 1800 feet in another segment. Citizens also reconstructed approximately five miles of line to convert the Franklin system from 7.2 kV to 12.47 kV. Guyette pf. 8/20/96 at 31-34.

441. Citizens did not obtain Section 248 approval for its line construction to serve the Franklin service territory. Arnold pf. 5/31/96 at 8-9.

442. Citizens witness Guyette explained that the new line is a radial feed that provides Citizens with the ability to serve the power needs of the former Franklin service area from Citizens' Sheldon Springs substation rather than from Swanton, and that the Franklin system is no longer interconnected with Swanton. Guyette pf. 8/20/96 31-32.

Discussion re Franklin Service Territory

The evidence in the record does not support a conclusion that the Franklin line is a transmission line. Instead, the line may fairly be characterized as a distribution line; it is constructed at a typical distribution voltage, and serves distribution customers. The line consists largely of the upgrade of a pre-existing distribution line, with two relatively short additions necessary to connect the line to a substation. The line does not constitute a tie line because it does not interconnect systems. While the line has some characteristics of a transmission line, based on the evidence of record, we do not conclude that its primary

purpose is the delivery of electric power in bulk. Thus, we conclude that this line does not require approval under Section 248.

7. Conclusion re Section 248 Permits

For the reasons stated above, Citizens was required to obtain, but did not, an amended CPG for the revised 120 kV transmission project. Citizens was required to obtain, but did not, CPGs for the replacement of the H. K. Webster and Burton Hill Substations and for the Island Pond-to-Bloomfield line.

In Part Two, Subpart III(B), below, we address the appropriate penalties for the Company's failure to obtain these necessary approvals. In our Order in this proceeding, we will include a condition requiring Citizens to promptly file applications for each of these necessary approvals.

B. Act 250 Permits

1. Franklin Service Territory

443. Citizens did not obtain an Act 250 permit for its line construction to serve the Franklin service territory, described above in Finding 440. It did receive a project review sheet issued by the Act 250 District Coordinator; the review sheet indicated that no Act 250 permit is necessary for the line construction. Green pf. reb. 1/24/97 at 2; exh. Villages-REA-8.

444. The Act 250 District Coordinator issued his project review sheet based on two plans provided by Citizens. One plan showed a construction project involving 7,100 feet of line along Durkee Road in Highgate, and the other plan depicted a 5,000-foot line project along Cassidy Road in Highgate. Citizens provided no other documents to the Coordinator. Green pf. reb. 1/24/97 at 3-4; exh. DPS-GWG-1.

445. The project review sheet describes the project as follows:

> The construction of a new utility line approximately 7100 feet in length along Durkee Road, and as a separate project, the construction of another 5,000' utility line in Highgate, VT.

Exh. Villages-REA-8.

446. The project review sheet concludes that each of the two described projects does not require an Act 250 permit because each involved less than 10 acres of land in Highgate, which has both permanent zoning and subdivision by-laws. Exh. Villages-REA-8; Green pf. reb. 1/24/97 at 3.

447. The Act 250 District Coordinator's recollection is that Citizens did not inform him that existing distribution lines along the Franklin line route were being upgraded. Green pf. reb. 1/24/97 at 3.

448. The individual at Citizens who provided the District Coordinator with the project information was Steven Guyette. Mr. Guyette's recollection is that he did inform the Coordinator that existing distribution lines were to be upgraded. Tr. 2/4/97 at 106-110 (Guyette).

449. Citizens presented the testimony of Martin Johnson to address whether the Franklin line reconstruction required an Act 250 permit. Mr. Johnson reviewed the line after it was reconstructed. His testimony discusses physical changes to the wires, insulators, cross-arms and poles, but does not address whether the right-of-way was widened or otherwise altered. Johnson pf. 8/20/96 at 47-51.

2. Island Pond-to-Bloomfield Line

450. Citizens neither obtained an Act 250 permit for, nor informed the Act 250 office about, the construction of the Island Pond-to-Bloomfield line. Arnold pf. 5/31/96 at 33-35.

451. The total length of the upgraded portions of the Island Pond-to-Bloomfield line is approximately fourteen miles. Excluding the 2.3-mile Wenlock Gap section that was addressed in Docket No. 5117, Citizens upgraded approximately 11.5 miles of line from Island Pond to Bloomfield. Guyette pf. 8/20/96 at 17.[169]

452. In his analysis of whether the Island Pond-to-Bloomfield upgrade required Act 250 approval, Citizens' witness Johnson did not review whether the cleared area of the right-of-way was modified. Tr. 11/6/96 vol. I at 98-99 (Johnson).

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169. Mr. Guyette's testimony at page 17 indicates that the Wenlock Gap portion was 2.5 miles long. In Docket No. 5117, Citizens represented that portion to be 2.3 miles long. Docket No. 5117, Order of 9/30/87 at 7.

453. We take official notice that the Towns of Bloomfield, Brighton, and Brunswick, and the locality of Ferdinand, each do not have both permanent zoning and subdivision bylaws.[170]

Discussion re Act 250 Compliance

While we do not have jurisdiction to determine whether in fact a particular construction project requires an Act 250 permit,[171] Citizens' practices regarding regulatory procedures are relevant to this investigation. If the evidence demonstrates a pattern of improper evasion of permitting requirements, or demonstrates that Citizens, while not purposefully evading applicable regulatory requirements, has nonetheless failed to implement procedures designed to reasonably ensure that it is in compliance with such requirements, those findings would weigh heavily in our deliberations regarding the Company's fitness to continue to hold a franchise in Vermont and regarding the prudence of the Company's management practices.

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170. By Motion filed on April 7, 1997, the Department requested that we take official notice that the Towns of Bloomfield, Brighton, and Brunswick, and the locality of Ferdinand, each do not have both permanent zoning and subdivision by-laws. In support of its Motion, the Department submitted a document from the Department of Housing and Community Affairs captioned, "Municipalities and Their Adopted Bylaws," dated March 26, 1996. No party has opposed the Department's Motion, and these are judicially cognizable facts because they are "capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned." V.R.E. 201(b)(2). Consequently, we grant the Department's Motion and, pursuant to 3 V.S.A. § 810(4), we take official notice as requested in the Motion.

171. Even if we did have such jurisdiction, it is unlikely that we would have been persuaded by Company witness Johnson's analysis of Act 250 jurisdiction. With respect to both the Franklin and the Island Pond-to-Bloomfield projects, Mr. Johnson did not address widening or other changes to the character of the pre-existing rights-of-way. This he should have addressed because the Act 250 exemption for above-ground distribution lines within existing rights-of-way only applies if the "installation will not require widening or changing the character of the right-of-way." Environmental Board Rule A-3(c)(iv). Furthermore, Mr. Johnson's analysis did not distinguish between work that was within, and work that was outside, a public highway right-of-way; this he should have addressed because that same Act 250 exemption for above-ground distribution lines only applies to lines not located within rights-of-way for public highways. Environmental Board Rule A-3(c)(iv).

With respect to the Franklin line construction, the record does not lend itself to a clear conclusion on whether Citizens in fact made a full disclosure to the Act 250 District Coordinator. We have found both Mr. Green and Mr. Guyette to be credible witnesses on this issue, and it appears likely to us that the passage of time rather than intentional falsehood is responsible for this conflicting testimony.

Although we are unable to determine whether in fact Citizens provided full Act 250 disclosure regarding the Franklin line construction, we can conclude that, as an example of the Company's regulatory compliance practices, it reveals a fundamental failure of management. While the Act 250 project review sheet may indicate that no permit is needed for the Franklin line construction, the project description does not include the full extent of the line construction that Citizens planned to undertake, as described in Finding 440, above. That Finding indicates that the new construction of 5800 feet of line and the reconstruction of five miles of pre-existing line can reasonably be construed to comprise a single project: the project to serve the Franklin service territory from the Company's Sheldon Springs Substation. If Citizens did indeed inform the District Coordinator of the full extent of the work to be performed, as it claims, then the Company should have requested that the project review sheet be modified to accurately reflect the project description. A person who was knowledgeable and prudent in permitting issues would have done so. Such a person would also not have provided written documentation on only part of the project.

Regarding the Island Pond-to-Bloomfield line, Citizens has contended that the project involved a distribution line and is thus exempt from Section 248.[172] For the reasons stated above in Part Two, Subpart II(A)(5), we have concluded that this line requires a CPG under Section 248. Because the line requires Section 248 approval, it is exempt from Act 250.[173] However, as Citizens has asserted this line to be a distribution line not subject to Section 248, the Company's actions regarding potential Act 250 jurisdiction are germane to whether the Company acted prudently in regulatory matters and whether the Company should continue to hold a franchise in Vermont.

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172. Citizens Brief 4/7/97 at 111-116, and Citizens' testimony cited therein.
173. 10 V.S.A. § 6001(3).

Citizens asserts that the Island Pond-to-Bloomfield line, if it is a distribution line, does not require an Act 250 permit because it involves only the upgrade of a line within an existing right-of-way that did not change the character of the right-of-way.[174] Even if this were correct, the Environmental Board Rules require the utility to provide written notice to the local Act 250 office of the project. Environmental Board Rule A-3(d). This Citizens failed to do.

We discuss below, in Part Two, Subpart II(D), the Company's failure to ensure that a knowledgeable person was responsible for compliance with regulatory requirements. Mr. Guyette may be extremely competent and qualified as a supervisor of line construction; however, as we find below, he lacks the training and experience necessary to make informed judgments regarding the necessity of obtaining regulatory approvals. We wish to stress that we are not here finding fault with Mr. Guyette or other VED construction personnel who have been given the responsibility for obtaining permits for their projects; instead, the fault lies squarely with corporate management, who, as discussed below, assigned permitting responsibility to the wrong people, failed to provide training or support for those people, and failed even to effectively communicate to those people their permitting responsibilities.

Determination of Act 250 jurisdiction over a distribution line project is, as the Department correctly notes in its brief, a complex inquiry.[175] And Citizens, as a company authorized to do business within Vermont, has a responsibility for ensuring that it complies with Vermont law. Meeting that obligation necessarily entails allocating sufficient and appropriate personnel and resources to ensure such compliance. We find it deeply troubling that Citizens would vest the responsibility for permitting decisions in personnel without the requisite knowledge to make those decisions.

C. Other Permits

454. Citizens' No. 11 Dam is licensed under the authority of the Federal Energy Regulatory Commission. All of Citizens' hydroelectric facilities in the Clyde River basin are under a single federal license issued in 1963. The original license was written to expire on December 31, 1993. At the time of the failure of No. 11 Dam on May 1, 1994, the entire

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174. Citizens Brief 4/7/97 at 119-124, and Citizens' testimony cited therein.
175. DPS Brief 4/7/97 at 74.

project was operating under an annual license issued by FERC while the relicensing process moved forward. Cueto pf. 8/23/96 at 2.

455. After the dam breached, FERC issued a directive on May 4, 1994, ordering Citizens "to take immediate emergency remedial actions" to secure the site and then to submit, within two days—*i.e.*, by May 6, 1994—a plan and schedule detailing the anticipated repairs. Citizens submitted its initial plans to FERC on May 6, 1994, and provided the additional requested information on May 10, 1994. Thomas pf. 9/23/96 at 5; exh. DPS-JRC-3.

456. On May 6, 1994, Martha Abair of the federal Army Corps of Engineers ("Corps") wrote a letter to Citizens regarding the breached dam. The letter indicated that its purpose was "to inform you of Corps of Engineers' jurisdiction over activities and to insure that you do not perform any work in the Clyde River or any other waterway or wetland under Corps' jurisdiction without first obtaining the required permits." The Corps' letter acknowledged the May 4, 1994, FERC directive that Citizens take immediate remedial action and submit plans. The Corps' letter informed the Company of need to obtain a permit from the Corps, under Section 404 of the Clean Water Act, for activities involving the discharge of dredged or fill material, excavation, and mechanized landclearing in waters of the United States. The Corps' letter requested Citizens to submit a copy of its plans for remedial action and permanent repairs so that the Corps could determine whether a Section 404 permit would be required. Exh. DPS-JRC-4.

457. When a Section 404 permit is required from the Corps, a Section 401 water quality certification is also required from the State. Citizens was informed of this requirement by copy of a May 10, 1994, letter from the Secretary of the Vermont Agency of Natural Resources to FERC. Cueto pf. 8/23/96 at 6-7; exh. DPS-JRC-5.

458. After consulting with counsel and others, the Company took the position that Section 404 did not apply in the case of the Unit No. 11 breach because the proposed repairs fell into an exemption to Section 404 for emergency reconstruction and/or maintenance repair. Thomas pf. 9/23/96 at 5-6.

459. ANR consistently took the position that Citizens' work on the breached dam did not qualify for the Clean Water Act's exemption for emergency reconstruction, and that thus it

would require a Section 404 permit and a Section 401 water quality certification. Tr. 12/19/96 at 102-103 (Cueto).

460. On July 19, 1994, FERC informed the Company that, pursuant to Section 10(c) of the Federal Power Act, it was "authorized to proceed with bank stabilization measures and such measures necessary to restore the project to operating condition." FERC also stated that Citizens "should immediately submit your plans and specifications (4 copies) for bank stabilization to our New York Regional Office." The FERC letter does not address whether any other federal, state or local approvals are necessary. Exh. DPS-JRC-8.

461. Prior to July 19, 1994, the only work that had been done at the No. 11 Dam site included reinforcing the bridge and access road leading to the site. No work had been done on the dam itself or on the embankment. Thomas pf. 9/23/96 at 5.

462. ANR took several steps to try to stop Citizens from repairing the dam, including filing a request for rehearing of the FERC's July 19, 1994, letter Order, which was denied, and instituting a court suit, which was dismissed. Thomas pf. reb. 9/23/96 at 11-12.

463. By July 27, 1994, Citizens' construction at the breached dam was well underway. On that date, Ms. Abair of the Corps visited the construction site. On the following day, Ms. Abair wrote a memorandum regarding her July 27 site visit. Ms. Abair did not object to the work that she observed on July 27, but cautioned Citizens not to work below the ordinary high water line until the Corps had determined whether a Section 404 permit would be needed. Exh. DPS-JRC-10; exh. DPS-JRC-12; exh. DPS-JRC-13; tr. 12/18/96 at 140-157 (Abair).

464. Kevin Perry of Citizens was present at the July 27 site visit. At the time of the site visit, a silt fence extended from the embankment near an old access road to the spillway near the breach. Mr. Perry testified that at the site visit, Ms. Abair indicated that construction in the area landward of the silt fence did not require a Corps permit. Ms. Abair did not recall approving a designated work area. Thomas/Perry pf. reb. 12/11/96 at 3-9; exh. CUC-KWP-1; tr. 12/18/96 at 143-145 (Abair).

465. On July 28, 1994, Citizens formally requested a determination by the Corps that the Company's proposed construction at the breached dam was exempt from the permit requirements of Section 404 of the Clean Water Act, on the basis that the work qualified for the Act's exemption for emergency reconstruction. Exh. CUC-FWT-2.

466. On August 3, 1994, the Environmental Protection Agency wrote to Citizens, informing the Company that the EPA was in the process of evaluating Citizens' request that its plans for construction of Dam No. 11 be considered exempt from Section 404. EPA's letter stated, "We have reason to believe that the company's proposed reconstruction may not qualify for an exemption . . . ." The letter also "strongly urge[d]" the Company to avoid discharges into the Clyde River, and that Citizens "would be ill-advised to proceed with any work in the river until either a § 404-permit is issued or a formal determination is made by the Corps and EPA that the proposed activities are exempt from the permit requirement. If the company were to proceed prematurely, it would run the risk of violating the Clean Water Act, for which substantial penalties apply." Exh. DPS-JRC-14.

467. After receiving the EPA's August 3, 1994, letter, Citizens continued its construction activities at the No. 11 Dam site. Citizens presented two reasons for its continuation of the work. First, the Company contended that the continued work was necessary to stabilize the bank regardless of whether the dam was ultimately removed or repaired. Second, Citizens claimed that a complete cessation of construction "would have jeopardized our ability to repair and repower the project that year, in the event that we received all <u>necessary</u> approvals from FERC and the Corps." Thomas pf. reb. 9/23/96 at 9 (emphasis in original).

468. On August 26, 1994, the EPA notified Citizens by letter that the EPA was exercising its authority to make the determination of Section 404 jurisdiction for the reconstruction at the No. 11 Dam site. The EPA's August 26 notification also informed Citizens that the EPA had determined that the Company's proposed reconstruction did not qualify for the Section 404 exemption for emergency reconstruction. The EPA's August 26 letter informed the Company that it must obtain a Section 404 permit before it may discharge any dredged or fill material into the Clyde River, and that thus "CUC may not proceed with any work involving discharges of dredged or fill material into the river until a § 404 permit is issued." The letter warned of the possibility of "substantial administrative and judicial sanctions" for violations. Exh. DPS-JRC-17.

469. After the EPA issued its August 26, 1994, determination, Citizens continued its construction activities at the No. 11 Dam site, including completion of the demolition of the

buttressed wall; installation of diversion pipes and encasing them in a large gravity wall; and placement of an estimated 1,500 to 2,000 cubic yards of fill in the river channel immediately below the spillway. Cueto pf. 8/23/96 at 14-15; exh. DPS-JRC-19; exh. DPS-JRC-20.

470. Ms. Abair performed a second site visit on August 30, 1994. She determined that a portion of the lower access road was within the ordinary high water mark. This road had been constructed and in place at the time of Ms. Abair's July 27, 1994, site visit. Another construction area, below the spillway, was potentially within ordinary high water, but Ms. Abair could not confirm this because the area was by that time below a substantial amount of fill. Exh. DPS-Cross-40; tr. 11/25/96 at 242-243 (Thomas).

471. By letter dated August 31, 1994, the EPA sent to Citizens "Findings of Violation and Order for Compliance," in which the EPA found:

> On August 28, 1994, two days after EPA's determination that the project proposed by Citizens was not exempt from the Section 404 permit requirement, Citizens and/or persons working on its behalf began to discharge dredged and/or fill materials into the Clyde River below the dam.

Exh. DPS-JRC-20 at 3-4. The EPA concluded that this discharge violated the Clean Water Act. The EPA ordered Citizens to "[c]ause no further discharges" except pursuant to a Section 404 permit. *Id*. at 4-5.

472. By letter dated September 1, 1994, Citizens contested EPA's findings that the Company had discharged fill into the Clyde River in violation of the Clean Water Act. The EPA did not respond to Citizens' September 1 letter, nor has EPA imposed any fines or penalties on the Company in connection with this matter. Exh. DPS-JRC-21; Thomas pf. reb. 9/23/96 at 12.

Discussion re Other Permits

The Company's actions following the breach of the No. 11 Dam are also troubling. Clearly, to an objective observer, the Company's rush to construct prior to a determination of federal Clean Water Act jurisdiction, and in the face of strong opposition from state regulators, was unwise. Its continuation of construction subsequent to the EPA's August 3, 1994, notification that the work may not qualify for the Section 404 exemption was more than unwise, it was imprudent. That the Company would continue construction even after the

EPA's August 26, 1994, notification that the work did not qualify for the Section 404 exemption further increased its imprudence.

The justifications offered by the Company for its continuation of construction after August 3, 1994, are that most of the work would have to be done regardless of the final decision on repowering the dam, and that the Company wished to complete work in the event that its repowering proposal would be accepted by FERC. These justifications are no excuse at all, and echo the familiar refrain of the Company that its various failures to obtain necessary permits were warranted by the exigencies of the situation.

Were this an isolated incident, we might give the Company the benefit of the doubt and attribute its actions here only to poor judgment. But we have seen repeatedly in this proceeding that the Company has pushed and evaded the limits of regulatory jurisdiction. Whether its reconstruction efforts at the No. 11 Dam site violated the Clean Water Act is not for us to say, nor is it necessary for us to determine, for regardless of whether the Act was violated, Citizens has demonstrated yet again its penchant for constructing projects in questionable circumstances without first obtaining a reliable jurisdictional determination.

D. Management of Regulatory Requirements

473. At the VED, typically one person is put in charge of a construction project. That person is referred to as the project leader. Tr. 10/30/96 at 237.

474. According to James Avery, who was then Citizens' Vice President of Energy, subsequent to Docket No. 5331 it has been Company policy that the project leader is the person responsible for obtaining all necessary permits for a VED construction project. Prior to that time, it appears that no one person had specific permitting responsibility, although ultimate responsibility would have fallen on the head of the Energy Sector. Tr. 10/31/96 vol. II at 28, 172, 180, 182; exh. DPS-Cross-19.

475. VED project leaders were never specifically instructed that they were responsible for obtaining necessary permits, nor were they provided specific training on the requirements for obtaining certificates of public good. When asked how Citizens keeps VED project leaders updated on regulatory laws, rulings and interpretations, Mr. Avery responded that it was

accomplished "through experience and working on different projects." Tr. 10/31/96 vol. II at 173; tr. 1/7/97 at 72-73 (Avery).

476. Citizens has not had in place a procedure to ensure that relevant Board orders, such as the order on charging the customer for the tax effects of Contributions In Aid of Construction, have been disseminated to appropriate staff at the VED and at corporate offices. For those orders that were disseminated, Citizens has lacked a procedure to ensure that appropriate changes were implemented to reflect the Orders. Tr. 12/3/96 at 46-50 (Kiener).

477. Steven Guyette is the Superintendent of Transmission and Distribution for the VED, a position which he has held since 1983. His primary duties and responsibilities include installation and maintenance of all transmission and distribution plant. Guyette pf. 8/20/96 at 2.

478. Mr. Guyette was the project leader for the Island Pond-to-Bloomfield line. Mr. Guyette did not believe that he as project leader bore the ultimate responsibility to obtain the necessary permits for his projects. Tr. 10/30/96 at 239, 242 (Guyette); tr. 10/31/96 vol. I at 43 (Guyette); tr. 10/31/96 vol. II at 12 (Guyette), 178-180 (Avery).

479. Mr. Guyette stated that "I don't know how to fill out a permit. I need help. So I can't ultimately be responsible to file something I don't know how to do." He further testified, "I don't think that it's up to the project leader to make the ultimate determination whether a project needs a permit or not." Mr. Guyette also stated, "I didn't fill out the applications and I only supplied information to people that did." Tr. 10/30/96 at 242, 243; tr. 10/31/96 vol. I at 110 (Guyette).

480. Regarding decisions on the need to obtain permits, Mr. Guyette further testified:

> MS. RUDE: So, you saw it as a joint decision between you and Mr. Bailey in that you would reach a consensus and that would be Citizens' position?
>
> THE WITNESS: No. It would be our opinion and our decision. Tom Bailey may have taken that other places. We also have an IO process. We submit the IO. It tells what we want to do, and it says; replace the substation. It then goes to Connecticut. We have -- vice president has to review it, sign off on it. The treasurer -- I mean, there's a lot of steps in there. There is not -- it's made to sound like one person makes one decision and that's the ultimate one. There is a whole process involved before something gets built.

MS. RUDE: But for the permitting, was it your understanding that when an IO for H. K. Webster was sent up the ladder, that decisions were being made as to whether it needed a permit?

THE WITNESS: Yes. *I believed that the people as it goes up the ladder determine many requirements associated with that substation. One of them may be a permit*. I'm sure Mr. Avery or his predecessor looked at that document and said; okay, what's missing here? And if it's nothing, they pass it on. If there is something, then they would call me and ask me and say; do you need a permit for this? I just never got that call. Tom Bailey may have.

MS. RUDE: Okay. Then for your portion of the input for H. K. Webster, for example, on what expertise were you relying to reach your conclusion?

THE WITNESS: I work in an operations world and I had a facility that was no good and one that I wanted to replace.

MS. RUDE: But just the permit question?

THE WITNESS: I understand. And the permit questions was a question raised in my mind. I then -- *it wasn't my ultimate decision*. I went to Tom, Tom may have gone to others.

. . .

MS. RUDE: I'm just trying to get an understanding -- I've gotten a further understanding, and I appreciate it, as to what you felt your role was in deciding about a permit. Now I'm trying to understand what -- where you felt your expertise was and your education and training came in to give your opinion about the permit.

On what basis, for example, on the H. K. Webster substation were you giving an opinion about the permit?

THE WITNESS: When I first became superintendent, my manager at the time was Al Fleury [*sic*—should be "Flory"]. He handed me -- I think it was Section 248 General Order 51, distribution data handbook. He said; read all of these things. These are the things that it's going to take to help us run our business.

I had read those. I don't think I read them directly during H. K. Webster's. I had a general knowledge of what they said. And I based my opinion on my needs and my opinion of what I've read. And I didn't think we needed a permit.

Tr. 10/31/96 vol. I at 41-44 (emphases added)(Guyette).

481. Subsequent to Mr. Guyette becoming superintendent in 1983, Citizens did not provide him with updated materials on Section 248. He only learned of the 1991 addition of Subsection 248(j) to the statute from conversations with CVPS personnel. Tr. 10/31/96 vol. I at 108-109 (Guyette).

482. Citizens' management did not effectively communicate to the VED staff that, subsequent to Docket No. 5331, VED project leaders bore the responsibility for obtaining all necessary permits. Tr. 10/31/96 vol. II at 178-179 (Avery); findings 473-480.

483. Citizens' Electric Sector, then located in Stamford, Connecticut, was in charge of planning of, and obtaining the original CPG for, the 120 kV transmission project that was the subject of Docket No. 5331. After the CPG was issued, the VED was placed in charge of constructing the project. According to Mr. Guyette of the VED, when the decision was made to change the design to double circuit construction, the Electric Sector was involved in discussions with the VED about whether an amended CPG would be required. However, Mr. Avery, who was in charge of the Electric Sector, said that there were no such discussions. Guyette pf. 1/24/97 at 9-10; Avery pf. 8/20/96 at 2; tr. 1/7/96 at 65 (Avery).

484. Mr. Guyette was given the responsibility to submit to the Board the detailed plans for the 120 kV project. Mr. Guyette wrote the February 28, 1992, transmittal letter to the Board for the detailed design plans for the fourth segment of the 120 kV line. Tr. 10/31/96 vol. I at 115-116 (Guyette); *see also* finding 368, above.

485. Mr. Guyette received no instructions from anybody at Citizens regarding whether or not to mention in the February 28, 1992, transmittal letter the change from single circuit to double circuit construction. No one at Citizens reviewed the letter before Mr. Guyette sent it. Tr. 10/31/96 vol. I at 120 (Guyette).

486. On April 17, 1994, VED employee Robert Arnold wrote a letter to Dr. Leonard Tow, the Chairman of Citizens. The letter contained a number of allegations, including claims that (a) Citizens failed to obtain required Section 248 approval for construction of the Island Pond-to-Bloomfield line, and (b) the 120 kV transmission facilities that were the subject of Docket No. 5331 were not constructed in accordance with the Company's Block Loading Facilities Transmission Agreement ("BLFTA") obligations, in that they were not capable of carrying a full 100 MW of load. Exh. DPS-REA-3.

487. Dr. Tow forwarded a copy of Mr. Arnold's April 17 letter to Daryl Ferguson, the President and Chief Operating Officer of Citizens. Dr. Tow included a handwritten note on the forwarded letter. Although portions of the handwritten note are difficult to read, in it Dr. Tow appears to instruct Mr. Ferguson: "Daryl. There seems to be a real problem here which could break out publicly. Let's investigate quickly [or quietly] and take appropriate action." Exh. DPS-Cross-20; exh. DPS-WS-10 at 5, 79-81; tr. 10/31/96 vol. II at 126-127, 190-191 (Avery).

488. Citizens assembled an internal Review Team to investigate the allegations contained in Mr. Arnold's April 17, 1994, letter. Tr. 10/31/96 vol. II at 126 (Avery); exh. DPS-WS-10 at 71-72.

489. Mr. Ferguson, in his deposition, stated that he asked the Review Team to go to Vermont to investigate the alleged problems at the VED. Mr. Ferguson stated that he instructed the Review Team to perform a complete objective review of all issues. Exh. DPS-WS-10 at 71-72.

490. The Review Team visited the VED. The Team interviewed Thomas Bailey, Steven Guyette, Robert Arnold, and Thomas Petit, and conducted site visits of the VED transmission and distribution system. The Review Team also examined relevant documents. Exh. DPS-WS-7 at 1.

491. The Review Team investigated a number of issues, including the construction of the Island Pond-to-Bloomfield Line, the capability of the 120 kV facilities, the VED's compliance with Company policies and procedures, and inconsistency in responsibility for regulatory compliance. Exh. DPS-WS-7 at 1-2.

492. After conducting its investigation, on May 16, 1994, the Review Team issued a report with its findings. The report is in the form of a letter addressed to Daryl Ferguson. At the time, Mr. Ferguson was also Mr. Avery's direct supervisor. Tr. 10/31/96 vol. II at 124, 126-127 (Avery); exh. DPS-WS-7.

493. Included among the Review Team's recommendations is that "[o]ne person should be deemed responsible for ascertaining that all required permits are filed. This person should also foster improved communications with local counsel so the Vermont Electric

Division is kept updated on various regulatory laws, rulings and interpretations." Exh. DPS-WS-7 at 6.

494. As of October 31, 1996, Citizens had not implemented the Review Team recommendation that one person at VED be responsible for obtaining permits. Tr. 10/31/96 vol. II at 142 (Avery); tr. 2/5/97 at 179-180 (Lass); exh. DPS-Cross-19.

495. Citizens has recently designated John Lass as the person with ultimate direct responsibility for ensuring that all necessary permits are obtained. Mr. Lass is Vice President and General Manager of the VED, a position he has held since August 2, 1996. Lass pf. 8/20/96 at 1; Lass pf. reb. 1/24/97 at 9.

496. In its May 16 Report, the Review Team also concluded "that company policies concerning construction, budgeting and accounting need to be clarified to division personnel." Exh. DPS-WS-7 at 5.

497. Another of the Review Team's conclusions is that "[a]s of the issuance of the State of Vermont Public Service Board Docket #5625 (3/94), it is clear that the construction of the Bloomfield Power Line without Board approval is in violation of Title 30, Section 248. (Attachment 7, page 27 footnotes)." Exh. DPS-WS-7.

498. Mr. Avery testified that he disagreed with the Review Team's conclusion that construction on the Island Pond-to-Bloomfield line violated Section 248. His conclusion was reached after discussing the issue with in-house counsel, and is based on Citizens' intent to operate the line at 19.9 kV, not 34.5 kV. Exh. DPS-Cross-19; tr. 10/31/96 vol. II at 138-139, 191-194 (Avery).

499. Mr. Ferguson stated that he discussed the Review Team's report with Mr. Avery and Citizens' General Counsel, but that he did not discuss the report with Dr. Tow. Exh. DPS-WS-10 at 72-77.

500. In his deposition, Mr. Ferguson stated that he instructed Mr. Avery to implement the Review Team's recommendation that one person at VED be made responsible for obtaining permits. Mr. Ferguson also stated that both Mr. Avery and the Company's internal audit division informed him that the recommendation was in fact being implemented. Exh. DPS-WS-10 at 171-172.

501. Mr. Ferguson also testified in his deposition that he recommended to Mr. Avery that he implement changes in bookkeeping and accounting at the VED. Exh. DPS-WS-10 at 171.

502. Mr. Avery testified that Mr. Ferguson never asked him what actions were being taken in response to the Review Team Report. Tr. 10/31/96 vol. II at 169 (Avery).

503. Citizens did not take any remedial action in response to the Review Team Report. Exh. DPS-Cross-19; tr. 10/31/96 vol. II at 166-168 (Avery); tr. 2/6/97 at 169 (Love).

504. In the current proceeding, Citizens designated Thomas Petit as the person primarily responsible for responding to the information requests of DPS consultant Seymour Laskow. O'Brien pf. reb. 3/5/97 at 7, 9; Petit pf. 8/20/96 at 1; Laskow pf. 2/18/97 at 1; tr. 12/2/96 at 109 (Petit).

505. Mr. Petit did not have sufficient knowledge to respond to all of Mr. Laskow's inquiries. In particular, Mr. Petit was not aware of how some items were handled at the corporate office, nor of all of the supporting documentation at the corporate office. Although Citizens provided an outside consultant, Mr. Randall, to assist Mr. Petit in responding to Mr. Laskow, Mr. Randall knew even less of the corporate office procedures and records than did Mr. Petit. O'Brien pf. reb. 3/5/97 at 9-10; tr. 3/18/97 at 92-95.

506. Mr. Petit was frequently unable to respond adequately to Mr. Laskow's information requests. Laskow pf. 2/18/97 at 2.

507. Citizens failed to gross up customer contributions in aid of construction to reflect the tax effect of the contributions, in violation of its tariff and despite a Board ruling requiring the gross-up. Findings 804-808, below.

Discussion re Citizens' Management of Regulatory Requirements

Citizens, like all Vermont electric utilities, must comply with many regulatory requirements, at both the state and federal level, imposed by environmental and utility regulators.

Citizens' corporate management assigned permitting responsibility to VED staff who were unqualified to assume these regulatory responsibilities. Citizens' corporate management failed to provide relevant training to those staff, and failed even to adequately inform those

staff of their permitting responsibilities. Citizens' corporate management failed to reliably monitor Vermont regulatory requirements, failed to ensure that those requirements of which it learned were communicated to appropriate staff, and failed to confirm that those requirements that were communicated to staff were appropriately implemented.

Given its management deficiencies, it comes as no surprise that Citizens has consistently failed to comply with Vermont regulatory requirements.

The record is clear, and compels the conclusion that Citizens has been imprudent in failing to implement procedures reasonably designed to promote compliance with regulatory requirements.

Of those regulatory requirements of which Citizens was certainly aware, the record is equally clear that the Company has consistently displayed resistance to those requirements, as well as for the Vermont regulatory process. With respect to the revisions to the 120 kV transmission line after we had approved the line in Docket No. 5331, the Company apparently believed that it was free to modify the project as it saw fit, as long as the Company believed its modifications to be appropriate. The Company contends that its modifications all had beneficial impacts under the Section 248 criteria, including the environmental criteria, and thus it need not have returned to us for further approval. This contention is entirely unconvincing, for two reasons. First, the purpose of Section 248 review (and Act 250 review) is to ensure *through an independent review* that a proposed project satisfies the statutory requirements. This independent review also provides an opportunity for the Department, the Agency of Natural Resources, and affected citizens and local communities to learn about and offer modifications to the proposal. If the legislature intended to allow utilities to determine unilaterally whether their projects would satisfy the statutory criteria, then the legislature would not have required utilities to obtain Section 248 approvals from the Board in advance of construction.

Second, even if it were acceptable for utilities to revise their permitted projects if they determined those revisions to promote the statutory criteria, Citizens failed to make such determinations for its changes to the 120 kV line. It conducted no proper least-cost analysis prior to revising the project. Nor did it enlist Mr. Johnson to review environmental impacts until *after* construction of the revised line. Rather than evidencing a utility with a sincere

concern for minimizing the environmental impacts of its construction, this conduct reveals a company concerned only with justifying its unilateral actions after the fact.

The Company's disregard for Vermont regulatory requirements is further demonstrated by its claim that the Island Pond-to-Bloomfield line was exempt from Section 248 based on the line's operating voltage, despite the Board's unequivocal rejection of that argument in Docket No. 5625. The Company's own internal Review Team recognized that the Island Pond-to-Bloomfield line violated Section 248, based on our decision in Docket No. 5625, yet senior corporate management, in consultation with in-house counsel, clung to the very interpretation for which it was fined—and fined the maximum amount permissible, to send a message to the Company—in Docket No. 5625. Citizens' Chairman, Leonard Tow, and its President, Daryl Ferguson, were both made aware of the allegations that the Island Pond-to-Bloomfield line violated Section 248, and the internal Review Team assigned to investigate that allegation (and others) concluded that there was a clear violation, based on Docket No. 5625. It was a serious failing of senior management not to ensure that Citizens was not repeating its mistakes of the Jay Peak line.

Senior management is also ultimately responsible for Citizens' inability or unwillingness to implement the other recommendations of the internal Review Team. While there are some discrepancies between the testimony of Mr. Ferguson and that of Mr. Avery regarding their discussions, or lack thereof, regarding implementation of the Review Team recommendations, regardless of which person's recollection is correct, the handling of the Review Team Report by senior corporate management was seriously deficient. Mr. Arnold's April 17, 1994, letter was addressed to Dr. Tow, who not only instructed Mr. Ferguson to investigate, but also recognized that "there seems to be a real problem here." However, according to Mr. Ferguson himself, Dr. Tow was never informed of the results of the investigation into this potential "real problem." When the Chairman of the Company expresses concern that there may be a significant problem at the VED and instructs the Company President to investigate, we would expect the Chairman to be informed of the results of the investigation. Failure to do so indicates a lack of responsiveness by the President, a lack of sincere concern by the Chairman, or both.

According to his own deposition testimony, Mr. Ferguson was asked by Dr. Tow to investigate Mr. Arnold's allegations, and Mr. Ferguson himself initiated the Review Team investigation. The Review Team's report was addressed directly to Mr. Ferguson. Yet, Mr. Ferguson never conducted a sufficient follow-up inquiry to determine whether the Review Team's recommendations were in fact implemented. This failure indicates a lack of responsiveness or a lack of sincere concern, or both, by the President of the Company.

E. Least-Cost Planning

Least-cost planning, simply stated, is the process of identifying that portfolio of resources that will meet the public's present and future demand for energy at the lowest present value societal cost. Vermont utilities are obliged by Vermont law and state policy to develop and implement least-cost plans.[176] Proposals for new investments and facilities should also be analyzed according to the principles of least-cost planning, prior to project initiation.[177] Least-cost analysis should also be used to assess the effects of changes in circumstances.[178]

1. Responsibility for Least-Cost Planning

508. In early 1988, Mr. Hieber, from Citizens' corporate office, assigned Mr. Arnold the responsibility for implementation of least-cost planning. Arnold pf. 5/15/96 at 24; tr. 10/14/96 at 162 (Arnold).

509. Mr. Bailey, manager of VED, was responsible for ensuring that VED's actions were consistent with the principles of least-cost planning. Mr. Bailey was responsible for ensuring that VED was in compliance with Vermont legal requirements for least-cost planning, and he was responsible for implementing Citizens' least-cost plan. Tr. 1/8/97 at 78-79 (Avery).

510. In January 1991, it became Mr. Guyette's responsibility to perform the least-cost analysis for the Island Pond to Bloomfield line. Tr. 10/31/96 vol. I at 14 (Guyette).

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176. 30 V.S.A. § 218c; Docket 5270, Order of 4/16/90; Steinhurst pf. 5/15/96 at 12. A least-cost integrated plan is often referred to as an integrated resource plan, or IRP.

177. See 30 V.S.A. § 248(b)(6).

178. See tr. 10/28/96 at 99-100 (Clayton).

511. In early 1991, Citizens' corporate office, through Michael Mount, requested that all Improvement Orders ("I.O.") sent to the Stamford Administrative Office be accompanied by a least-cost analysis of the proposed project. Guyette pf. 8/20/96 at 62; tr. 10/31/96 vol. I at 21 (Guyette).

512. Citizens' Office Manager/Senior Accountant and Superintendent of Transmission and Distribution (Messrs. Petit and Guyette) worked together on a 20-year life-cycle analysis for a project.[179] The analysis was sent to Mr. Mount for his approval and, with minor modification, he approved the approach. Guyette 8/20/96 pf. at 62-63; tr. 10/31/96 vol. I at 22 (Guyette).

513. Mr. Mount's assistance in developing the process for least-cost planning was limited to the development of a spreadsheet format and to providing VED with discount factors and interest rates to use in the analysis. Tr. 10/14/97 at 164 (Arnold); tr. 10/31/96 vol. I at 49 (Guyette).

514. Mr. Petit and Mr. Guyette performed least-cost analyses for five or six additional projects, using the same procedure. These analyses were performed in the spring of 1991 in connection with I.O.s for projects anticipated in the coming construction season. Guyette pf. 8/20/96 at 63.

515. There was no requirement at VED that written documentation of a least-cost analysis be retained for any project. Tr. 10/31/96 vol. I at 30.

516. Mr. Guyette understood "least-cost analysis" to mean that various alternatives are compared on the basis of costs, including maintenance costs, over a study period of 20 to 30 years. Tr. 10/31/96 vol. I at 24, 28 (Guyette).

517. In 1990 and 1991, some projects were forwarded to Mr. Arnold for least-cost analysis; however, in the summer of 1993, projects were no longer being forwarded to Mr. Arnold for this purpose. After that, Mr. Arnold was concerned that no one at VED was doing least-cost analysis. Mr. Arnold brought that concern to the attention of Mr. Mount on his visit to VED in 1994. Tr. 10/14/96 at 168, 181, 183-184.

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179. Mr. Guyette could not recall what this project entailed. Guyette pf. 8/20/96 at 63.

518. Mr. Arnold attempted to acquire the resources and manpower he believed were needed to implement T&D least-cost planning. Arnold pf. 5/15/96 at 30-31.

519. The Company felt Mr. Arnold's requests to be unnecessary to accomplish the T&D least-cost planning task. Guyette 8/20/96 pf. at 70-74.

Discussion re: Responsibility for Least-Cost Planning

There is some evidence in the record that Citizens, through Mr. Mount, attempted to work with the employees at VED to develop procedures to conduct proper least-cost analyses. However, it is also clear from the record that the essence of the least-cost analysis as set out in Vermont law and Board orders was not understood by all relevant employees. While it is possible that Mr. Bailey, as manager at VED, had a more complete understanding of the process than did Mr. Guyette, the Company did not offer Mr. Bailey as a witness to substantiate this. The testimony of the Company's witness, Mr. Guyette, leaves the impression of a Company that confuses a narrow, financial cost-benefit exercise with a societal least-cost planning analysis.[180] They are not one in the same; a least-cost analysis is more comprehensive and recognizes the societal costs of potential actions, not merely their private financial costs.[181]

2. Least-Cost Planning as Required Under the MOU

520. In 1990, Citizens, in Docket No. 5426, entered into a Memorandum of Understanding ("MOU") with the Department. That MOU was approved by the Board in its Order in that Docket. Exh. DPS-REA-11; Docket 5426, Order of 10/24/90.

521. The MOU states in relevant part:

> Citizens agrees to comply with transmission and distribution efficiency requirements where appropriate as set out in the Vermont Twenty-Year

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180. One example is Mr. Guyette's response to a question, in the context of cross-examination on least-cost analysis, on whether an analysis was done for the decision to utilize used conductor on the Bloomfield line. His response was "I used the used conductor out there because it was the cheapest. And I think that is an analysis." There are many other such examples in the record. Tr. 10/31/96 vol. I at 31.

181. See generally Docket No. 5270, Order of 4/16/90.

> Electric Plan - 1988 Revision at pages III 1-28 to III 1-33, at paragraph 1.11 et seq. If, after consultation, Citizens and the DPS cannot agree on what is appropriate to achieve compliance, either party may request a Board resolution of such agreement. In particular, Citizens agrees, to the extent it is not already in compliance and where appropriate, to (1) promptly implement the equipment selection and utilization standards set out therein, (2) promptly initiate and complete within a reasonable period the distribution and transmission efficiency assessments required therein, and (3) implement appropriate measures identified by said assessments within a reasonable period of time after each portion of the analysis is completed.

Id. at 3.

522. While the Company did begin to implement least-cost planning in 1991, it later ceased transmission and distribution least-cost planning as required by the MOU. Arnold pf. 5/15/96 at 29-32.

Discussion re MOU

Citizens claims that, with the exceptions of the Newport conversion and the Franklin upgrade, the projects reflected in the construction budget from 1988 through 1994 either did not require a least-cost analysis or had such an analysis performed by Mr. Arnold.[182] Mr. Arnold contests this. He states that while the Company did begin to implement least-cost planning in 1991, it later ceased continuing with transmission and distribution least-cost planning as required by the MOU.

Citizens does concede that it did not implement formal T&D least-cost planning in accordance with the timetable set out in the MOU.[183] However, the Company submits that the evidence shows that "the failure to fully comply with the MOU resulted largely from difficulties among VED staff."[184] The Department argues that the Company's management deliberately frustrated the efforts by VED staff to implement the terms of the MOU.[185]

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182. Guyette pf. 8/20/96 at 66-68; exh. CUC-SAG-1.

183. Citizens Brief 4/7/97 at 185; Citizens Reply Brief 4/18/97 at 69; Love pf. 1/24/97 at 7.

184. Citizens Reply Brief 4/18/97 at 71.

185. DPS Brief 4/7/97 at 15; Steinhurst pf. 5/15/96 at 13.

The record demonstrates that the Company did not fully comply with the requirement of the MOU to conduct least-cost planning for its T&D system. The personnel problems cited by Citizens, if they did exist, are not a valid cause for non-compliance. The Company's failure to abide by the MOU is particularly egregious in light of the T&D projects that have been shown in this Docket to have been built both without proper permits and without proper least-cost analysis. Citizens violated both the terms and spirit of an agreement that had been expressly approved by this Board.

3. Line Projects

a. Island Pond to Bloomfield

523. Proper least-cost planning was not performed for the Island Pond to Bloomfield line. Tr. 11/6/96 at 210-211 (Steinhurst).

524. A cost-benefit analysis of the line was performed by Mr. Guyette and Mr. Perry. That analysis compared the power cost savings that could be achieved by serving the Bloomfield area from Island Pond rather than by taking service from PSNH. However, most of the analysis was informal and undocumented. Tr. 10/31/96 vol. I at 14-16 (Guyette).

525. Citizens hired Power Technologies Inc. ("PTI") to conduct a *post hoc* engineering and economic analysis of the Island Pond to Bloomfield line assuming that the line would end in Canaan. PTI's consultant, Mr. Henriksen, determined that there were three options available to VED for serving the Island Pond/Bloomfield /Canaan area: (1) extending the 46 kV line beyond Island Pond and adding a substation; (2) constructing a three-phase line from Island Pond to Beecher Falls; and (3) constructing a three-phase 34.5/19.9 kV line from Island Pond to Canaan. Henriksen claimed the third alternative was preferable. Henriksen pf. 8/20/96 at 11.

526. Mr. Henriksen understood that it was Citizens' plan to extend the 34.5 kV line from Island Pond to Canaan and Beecher Falls. Tr. 10/29/96 at 124 (Henriksen).

527. Citizens does not presently have any plans to serve the Canaan load from the Island Pond line. Exh. LJO-26 at 1.

528. Citizens informed Mr. Henriksen of its conclusion that the Beecher Falls load should be served from Island Pond because of the inability of PSNH to economically serve the three-phase industrial load in Beecher Falls. Tr. 10/29/96 at 128 (Henriksen).

529. The Department, in its analysis, concluded that the least-cost alternative for serving the Bloomfield area would have been to continue serving the Beecher Falls customers from PSNH. Oppel pf. 5/15/96 at 12.

530. The Department concluded that there were other acceptable options for serving the Bloomfield area and beyond from Island Pond. Those options were single-phase 19.9 kV or three-phase 12.47 kV circuits, both utilizing a 336 kcmil conductor. Either of these options may have been least-cost. Oppel pf. 5/15/96 at 10, 12.

Discussion re: Island Pond to Bloomfield Line

Citizens has denied that it failed to conduct a least-cost evaluation of the Island Pond to Bloomfield line.[186] However, under cross-examination on this issue, the Company witness could not produce evidence of having done such an evaluation. The Company's witness referred to the least-cost analysis done in Docket No. 5117 but conceded that, in that Docket, the Company never formally proposed to build a 34.5 kV line between Island Pond and Bloomfield.[187] Citizens, in its brief, concedes that the Company did not perform a formal twenty-year life-cycle analysis of the configuration of the Island Pond to Bloomfield line.[188]

Both Citizens and the DPS provided testimony on whether the construction that Citizens did undertake on the Island Pond to Bloomfield line was the least-cost option, given the information available to the Company at the time. This testimony is inconclusive because it assumes different objectives or end-points for service, and also because some facts are in dispute. Citizens provided Mr. Henriksen with its conclusion that the Beecher Falls load should be served from Island Pond because of the inability of PSNH to economically serve the

186. Exh. DPS-Cross-26.
187. Tr. 11/1/96 at 19-21 (Avery).
188. Citizens Brief 4/7/97 at 109.

three-phase industrial load in Beecher Falls.[189] However, Mr. Henriksen agreed that he did not do any independent analysis to support that conclusion.[190] In addition, Citizens claims that in the mid-1980's Hydro-Quebec stated that it may be necessary for them to withdraw its 24.5 kV source near Canaan.[191] However, Hydro-Quebec has not, in fact, withdrawn that source.[192]

The Department, in its brief, states that Citizens never brought the plan to serve the Beecher Falls area to the Department's attention until it filed its testimony in this case.[193] The Department, however, agrees with Mr. Henriksen's conclusion that, if the Canaan load is to be served from Island Pond, a 34.5 kV line, at a minimum, would be necessary.[194] Citizens stated that it presently does not have any plans to serve the Canaan load from the Island Pond line.

We do not need to consider which party's *post hoc* analysis is correct in order to draw a conclusion as to the reasonableness of Citizen's conduct with respect to this matter. As we note below, *post hoc* analyses are always burdened with the question of what facts were known at the time and whether, in hindsight, another option appears to have been optimal. In addition, the results are rightly judged with skepticism, since the analysis often serves a foregone conclusion.

A critical purpose of least-cost planning is to inform utility decision-making *at the time investment decisions are made*. We conclude that Citizens, by its admitted failure to conduct a least-cost analysis of the Island Pond to Bloomfield project before initiating it, failed to properly support its decision to do so. In Part Two, Subpart II(A) of this Order, we require the Company to file an application for a CPG, and that petition should include an appropriate least-cost analysis for this project.

b. 120 kV line

189. Tr. 10/29/96 at 128 (Henriksen).
190. Tr. 10/29/96 at 128-129 (Henriksen).
191. *See* Finding 424, above.
192. Tr. 10/29/96 at 125 (Henriksen).
193. DPS Brief 4/7/97 at 23.
194. Oppel pf. reb. 1/24/97 at 24.

531. In Docket No. 5331, the Board issued a CPG for construction and operation of a 120 KV transmission line from Derby Line to Richford. The line as built differs from the line as it was approved in Docket No. 5331. See findings in Part Two, Subpart II(A)(1), above.

532. Citizens made engineering changes to the actual 120 kV line after its design had been approved in Docket No. 5331. Citizens did not perform a detailed preconstruction least-cost analysis of the changes that it made to the 120 kV line. Tr. 11/1/96 at 147 (Avery); tr. 1/7/97 at 43 (Avery).

533. Citizens did not consider additional transmission losses when it decided to change the 120 kV line. As a result of the new design, losses increased. Tr. 11/1/96 at 146 (Avery); Oppel pf. reb. 1/24/97 at 22.

534. Citizens utilized 35-year old conductor when reconfiguring the line from a single to a double circuit. Oppel pf. reb. 1/24/97 at 23.

535. Citizens failed to upgrade the Jay and Richford substations in accordance with the approved project design. These substation upgrades were part of the original engineering analysis. Tr. 11/7/96 at 16 (Steinhurst).

536. The Irasburg substation structure was enlarged, and equipment was added to the substation. These changes were not part of the original design of the 120 kV facilities. Guyette pf. 1/24/97 at 7-8; finding 362, above.

537. Citizens added equipment to its Newport Center substation; this was not part of the original design of the 120 kV facilities. Guyette pf. 1/24/97 at 7-8; finding 363, above.

538. Citizens hired Power Engineers Inc. to perform a *post hoc* analysis of the savings purported to have been realized as a result of the changes to this line. Exh. CUC-LLH-5R.

Discussion re 120 kV line

In Docket 5331, the Company was granted approval to build a 120 kV line from Derby Line to Richford. Subsequent to that approval, the Company made significant design changes to the line. The final configuration of the 120 kV line was different from that of the plans submitted in Docket 5331. Citizens concedes that it did not perform a detailed least-cost analysis for the actual construction as finally configured.

Citizens argues that its decision to go forward with those changes in the absence of a least-cost analysis was justified because the advantages to the changes were clear and overwhelming.[195]

We cannot accept that the Company's justification for its admitted failure to perform a least-cost analysis of the changes made to the facilities approved in Docket No. 5331. While we do not believe that formal least-cost analysis can, or should, always replace the engineering judgement or the common sense experience of utility employees, the modifications at issue here greatly exceed the types of construction changes that can be supported by "back of the envelope" judgments by Company employees. It is not obvious that those changes have been least-cost from a societal perspective. Indeed, a least-cost analysis, considering all the criteria under Section 248 as well as other relevant economic criteria, may well have shown that other configurations of this line were more advantageous to ratepayers. We find that the Company's pattern of project modifications, taken without appropriate analysis or permit amendments, does not conform to the requirements of Vermont law or the standards of prudent utility practice. Significant investment decisions require least-cost analysis; substantial changes to approved projects require Section 248 review. With respect to the 120 kV line, the Company did not adhere to either of these standards. In Part Two, Subpart II(A) above, we require the Company to file an application for an amended CPG, and that petition should include an appropriate least-cost analysis for the changes to this project.

c. Franklin Upgrade

539. Citizens acquired the Franklin system in 1993. At that time, there were serious reliability problems within the Franklin service territory. Guyette pf. 8/20/96 at 33.

540. Citizens agreed to upgrade the Franklin system so as to improve system reliability and improve the quality of service. *Id*. at 33-34.

541. As a condition of the acquisition, Citizens and the Department agreed that Citizens would make physical plant improvements expeditiously. Docket No. 5637, Order of 7/23/93 at 9.

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195. Citizens Reply Brief 4/18/97 at 43.

542. The Chodat report was an engineering analysis done by Citizens' consulting engineer that considered short-range and long-range options for upgrades on the Franklin system. Citizens chose to pursue the long-range option recommended in the report, which required upgrading the system to 12.47 kV. Under the chosen option, there were advantages to serving the Franklin load from the Sheldon Springs substation rather than by a tie with Swanton. *Id*. at 34-35.

543. Mr. Guyette understood the Chodat report to be a long-range least-cost analysis as required under the DPS Twenty-Year Plan. *Id*.

544. Citizens witness Clayton stated that he could not conclude that the decision to feed the Franklin system out of the Sheldon Springs substation rather than through the Village of Swanton was cost-justified. Clayton pf. 8/20/96 at 55-56.

Discussion re Franklin Upgrade

The Villages contend that the Franklin upgrade as undertaken by Citizens was not consistent with the principles of least-cost planning.[196]

Citizens claims that the analysis it performed with regard to the Franklin upgrade was sufficient and, furthermore, that the Chodat study was a least-cost analysis.[197] The Company states that "[t]he work done to upgrade the Franklin line was reasonable, prudent and not inconsistent with least-cost planning, even in the absence of a **formal** least-cost analysis."[198]

The Franklin distribution system upgrades did not require prior approval under Section 248. Nevertheless, under most circumstances, these upgrades and their alternatives should have been treated to a thorough least-cost review. The Company did not do so. However, we cannot conclude that the Company's actions were inappropriate. At the time of the acquisition, the Department had agreed that work to upgrade the Franklin system should be undertaken expeditiously. We must take into consideration the serious problems of reliability and service quality being experienced by Franklin customers prior to Citizens' purchase of that territory in 1993. Given these circumstances, the evidence in this Docket is mixed; while we

196. Arnold pf. 5/31/92 at 22.
197. Guyette pf. 8/20/96 at 34.
198. Citizens Brief 4/7/97 at 133.

do not condone the Company's failure to consider its options according to the principles of least-cost planning, neither can we find that the Company's actions were altogether unreasonable.

4. Substations

a. H. K. Webster

545. VED considered five options for the reconstruction and relocation of the H. K. Webster substation. Henriksen pf. 8/20/96 at 23; Guyette pf. 8/20/96 at 9-12.

546. Citizens chose the option of relocating the substation and converting it to 7.2 kV/12.47 kV with new voltage regulation fed off the existing 46 kV circuit. Guyette pf. 8/20/96 at 9.

547. The Department identified three other potentially viable options for this reconstruction. Oppel pf. 5/15/96 at 18.

548. Citizens did not do a least-cost, long-range present value analysis of each option. Guyette pf. 8/20/96 at 12; Oppel pf. 5/15/96 at 21.

Discussion re H. K. Webster

The H. K. Webster substation serves the Richford area and was reconstructed and relocated in 1989 in part to better serve the needs of a large industrial customer. The rebuild was not exempt from review under Section 248[199] At the time of the reconstruction, the Company considered a number of options for the rebuild. Citizens argues that, in deciding upon those options, it relied on a pragmatic analysis that identified a reasonable solution that met both the Company's and customer's needs.[200] The Department identified three additional options that it argues the Company should have considered as well. In this Docket, the DPS and Citizens have both presented after-the-fact analyses determining which of the possible options was most viable. It is not necessary at this time to decide the substantive merits of which option would have been optimal. That decision will be made in the context of the Section 248 review (and least-cost analysis) of the project that we order in this Docket.

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199. See Part Two, Subpart II(A)(2), above.
200. Citizens Brief 4/7/97 at 155.

The parties agree, and the evidence establishes, that Citizens did not engage in a formal least-cost analysis of the changes made to the H. K. Webster substation.[201] We conclude that Citizens' failure to conduct an appropriate least-cost analysis of this project is not in keeping with either regulatory requirements or prudent utility practice. In Part Two, Subpart II(A) above, we require the Company to file an application for a CPG, and that petition should include an appropriate least-cost analysis for this project.

b. Burton Hill

549. No engineering analysis was ever performed for the relocation of the Burton Hill substation. A brief financial analysis was performed for this relocation. Oppel pf. 5/15/96 at 14, 15.

550. No formal, comprehensive least-cost analysis was performed for the reconstruction and relocation of this substation. Oppel pf. 5/15/96 at 15; Guyette pf. 8/20/96 at 4.

Discussion re Burton Hill

Citizens rebuilt the Burton Hill substation on a new site in 1989. The reconstruction and relocation of this facility were not exempt from Section 248 review.[202]

Citizens concedes that it did not conduct a formal least-cost analysis to support its decision to rebuild the Burton Hill substation. However, the Company argues that the need to rebuild this substation was obvious at the time.[203] Our conclusion is the same as that with respect to the H. K. Webster substation; the failure of the Company to conduct a least-cost analysis is not in keeping with either regulatory requirements or prudent utility practice. In Part Two, Subpart II(A) above, we require the Company to file an application for a CPG, and that petition should include an appropriate least-cost analysis for this project.

5. Diesel Maintenance

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201. Citizens Brief 4/7/97 at 155.
202. See Part Two, Subpart II(A)(3) above.
203. Citizens Brief 4/7/97 at 160.

551. In December 1994, Citizens provided the Board and the Department with a study of its diesel units in Docket No. 5656. The diesel study considered two questions: (1) whether Citizens' past practice of minimal diesel maintenance was the least-cost option in the long-run compared to an on-going maintenance program; and (2) whether refurbishing the engines in the future is the least-cost option. The study compared various scenarios including (1) retirement of the diesels in 1999 (as assumed in Citizens 1994 IRP), (2) immediate retirement, (3) replacement, (4) refurbishment of the units, and (5) deferring preventative maintenance. Lacasse pf. 8/20/96 at 4; exh. CUC-SJL-1.

552. Alternative strategies included peak reduction through load management and energy efficiency. Citizens concluded that refurbishing the diesel units is the least-cost solution. Lacasse pf. 8/20/96 at 4; exh. CUC-SJL-1 at 8.

553. Although Citizens' analysis has used post-DSM avoided costs, it has not adequately considered the fact that the diesel units are a peaking resource. Steinhurst pf. 5/15/96 at 26.

Discussion re: Diesels

Citizens argues that the Diesel Study represents an appropriate least-cost analysis of VED's diesel resources. The Company takes the position that its study considered all cost-effective DSM resources and properly analyzed a full set of potential options. The Company believes that this analysis is clearly a least-cost approach.[204]

The Department argues that the study failed to consider all DSM alternatives because, although it used post-DSM avoided costs, the diesels are a peaking resource and therefore a targeted assessment of on-peak costs and benefits is required.[205]

We conclude that Citizens has made a sincere attempt to produce a least-cost analysis to determine the most cost-effective treatment of its diesel units. However, the Department raises some valid criticisms. Post-DSM costs are weighted averages and the diesels are peaking units. Citizens' use of the weighted average avoided costs may not capture the full

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204. LaCasse pf. 8/20/96 at 6-7.
205. Steinhurst pf. 5/15/96 at 26.

value of a resource which is used exclusively on peak. The evidence is not conclusive as to whether Citizens' diesel analysis correctly identified the least-cost option.

Discussion re Least-Cost Planning Generally

The basic requirements and substantive recommendations for T&D planning were set out in the 1983 version of the Twenty-Year Electric Plan ("Plan"). The Plan was revised in 1988. Among other things, the Plan requires the state's utilities to obtain a determination from the Department that, for any transmission project it expects to build in the state, such project is consistent with the Plan. 30 V.S.A. § 202(f) states in relevant part:

> After adoption by the department of a final plan, any company seeking board authority to make investments, to finance, to site or construct a generation or transmission facility or to purchase electricity or rights to future electricity, shall notify the department of the proposed action and request a determination by the department whether the proposed action is consistent with the plan.

In addition, before granting a certificate of public good for the construction of facilities that are subject to Section 248 review, the Public Service Board is required to find that such construction is required to meet the present and future demand for service. Section 248 of Title 30 requires that:

> no company . . . may begin site preparation for or construction of an electric generation facility or electric transmission facility within the state which is designed for immediate or eventual operation at any voltage . . . unless the public service board first finds that the same will promote the general good of the state and issues a certificate to that effect.[206]

30 V.S.A. § 248(b) also states in relevant part:

> (b) Before the public service board issues a certificate of public good as required under subsection (a) of this section, it shall find that the purchase, investment or construction:
>
> (2) is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost effective manner through energy conservation programs and measures and energy-efficiency and load management measures, including but not limited to those developed pursuant to the provisions of sections 209(d), 218c, and 218(b) of this title
>
> . . .

206. 30 V.S.A. § 248(a)(2)(A) and (B).

> (6) with respect to purchases, investments, or construction by a company, is consistent with the principles for resource selection expressed in the company's approved least-cost integrated plan.[207]

Section 218c sets out the requirements for an electric utility's least-cost integrated plan. For our purposes here, the pertinent part of the statute is the following:

> Each regulated electric or gas company shall prepare and implement a least cost integrated plan for the provision of energy services to its Vermont customers. Proposed plans shall be submitted to the department of public service and the public service board. The board, after notice and hearing, may approve a company's least cost integrated plan if it determines that the company's plan complies with the requirements of subdivision (a)(1) of this section.[208]

The law plainly requires that a Vermont electric company obtain prior approval from the Board before it undertakes, among other things, site preparation or construction of in-state transmission facilities. One aspect of that approval must be an affirmative finding by the Board that the proposed action "is consistent with the principles for resource selection expressed in the company's approved least-cost integrated plan." The question then arises, can the Board approve any proposal under Section 248 in the absence of an approved least-cost integrated plan?

In two other cases, the Board concluded that the answer to this question is yes. In Docket Nos. 5810 *et al*. (*In re* Vermont Electric Cooperative's debt restructuring plan), we found that:

> the absence of an approved IRP is [not], by itself, sufficient reason to disapprove a proposed purchase under § 248; however, in such a case, the evidence would have to demonstrate that the purchase is justified by a truly integrated, least-cost analysis.[209]

This conclusion relied in part on our decision in an earlier Docket investigating a petition by Citizens to purchase power under a long-term contract with the developer of a hydro-electric

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207. 30 V.S.A. §§ 248 (b)(2) and (b)(6). Section 248(b)6) was added by the General Assembly and signed into law by the governor in 1991. If there had been any question prior to that time that § 248 required that a proposed purchase or investment be the *least-cost* option, it was unequivocally answered with the enactment of this subsection.

208. 30 V.S.A. § 218c(b).

209. Docket Nos. 5810 *et al.*, Order of 2/8/96 at 50.

facility in New Hampshire. In that Docket, we concurred with the Hearing Officer that "the absence of an approved, least-cost integrated plan was not, by itself, sufficient to prevent Board approval of a petition under § 248."[210]

We went on to say that:

> The statute does not prescribe what must be done if no such plan has been approved. We conclude that not all § 248 petitions must await the approval of a company's IRP, especially in the initial period of IRP preparation and review. Instead, until such approval occurs, the Board could test the appropriateness of a § 248 proposal against the principles of least-cost planning that would reasonably be expected to be embodied in a company's approved IRP. This policy judgment is evident in the legislative history cited by the Hearing Officer.
>
> We must caution, however, that such an interpretation of § 248(b)(6) does not allow a company to avoid indefinitely its obligation to file and seek approval of a least-cost plan. *See* 30 V.S.A. § 218c. Nor does this interpretation relax the requirement of § 248(b)(6): simply, in the absence of an approved IRP, a company is required to demonstrate that its proposed purchase or construction is consistent with least-cost planning principles. Thus, the practical effect of a company's failure to have an approved IRP will be to force all parties to conduct a § 248 review contemporaneously with an IRP review, to consider much of what should have been examined in an IRP review, or, in the unusual case, to defer § 248 review until an IRP is approved. Obviously, this process can be simplified if a company has already fulfilled its statutory obligation to file an IRP that is appropriate for approval before commencement of the § 248 review.[211]

This legislative and case history leads to a critical conclusion, namely that utility investments and purchases must satisfy the principles of least-cost planning and, furthermore, that such determinations must be made *before* the proposed action is undertaken.

The Order on the scope of issues to be addressed in these proceedings stated explicitly the areas that would be considered relevant in this investigation. It is worth quoting from that Order here:

> The scope of the investigation is focused on two broad issues: whether investments in these facilities were made with proper regulatory approval; and

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210. Docket No. 5737 (*In re* Baldwin Hydro), Order of 4/17/95 at 30.

211. *Id*. at 30, fn. 7.

> whether such facilities were designed, constructed, and operated in accordance with least-cost planning principles and prudent utility practice. . . .
>
> Second, with respect to whether such facilities were built in accordance with least-cost planning principles, questions to be asked and answered include: should a least-cost analysis have been performed *prior to construction*; was such an analysis undertaken; was construction of a particular facility the least-cost option as shown by such an analysis; and did the Company comply with the memorandum of understanding in Docket No. 5426 in which it agreed to comply with the transmission and distribution efficiency requirements as set out in the Vermont Twenty-Year Electric Plan.[212]

The Department has submitted that Citizens did not perform an appropriate least-cost analysis for the following projects:

- Construction of the Island Pond to Bloomfield line;
- Design changes to the 120 kV line including the change from single to double circuit between Derby and Newport, the change from single to double circuit between Mosher's Tap and Troy, the change from single to double circuit between Troy and Jay, the change from single to double circuit between Jay and Richford, the omission of Jay substation upgrade, the omission of Richford substation upgrade, and the installation of used conductor;
- Changes to the Irasburg substation;
- Changes to the Newport Center substation; and
- The Department also alleges that Citizens violated the terms of the MOU incorporated in Docket No. 5426.[213]

The Villages submit that Citizens did not perform a least-cost analysis for the Franklin upgrade.[214]

The evidence in this docket—largely undisputed—demonstrates that Citizens invested in a variety of transmission and distribution facilities without having performed the requisite analyses to establish that its chosen actions were least-cost and without the prior approval of this Board. The Company offers a number of justifications for its actions:

- Its actions were so obviously the least-cost alternatives that formal analysis to establish this was unnecessary;
- Its actions were consistent with least-cost planning principles, which *post hoc* analysis has demonstrated;
- There is no evidence that the ratepayers have been harmed by the Company's actions;

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212. Docket Nos. 5841/5859, Order of 1/4/96 at 2-3 (emphasis added).
213. DPS Brief, Appendix of Violations 4/9/97.
214. Arnold pf. 5/31/96 at 19-23.

- The limited economic analyses that the Company did perform in fact showed that the expected benefits of its chosen options exceeded their costs;
- Engineering and reliability studies would have added unnecessary costs to the projects; and
- In certain instances, system deficiencies demanded that immediate action be taken and a least-cost analysis would have identified the high priorities of those actions.

We do not find these arguments persuasive. While we do expect the expertise of the Company's management and workers to inform its investment and operating decisions, we do not conclude that the Company is thereby relieved of its legal obligation—an obligation that is consistent with rational business practices—to fully analyze the benefits and costs of various alternatives for providing service. In the absence of proper analyses, the Company could not be sure that its actions were least-cost and, therefore, it had no credible basis on which to proceed with the undertakings. Also, in this instance, the lack of proof that ratepayers were harmed by the Company's actions does not establish that there was, in fact, no harm: since all reasonable alternatives to the proposed actions were not considered, we cannot know if indeed truly least-cost options were foregone. (The Company's assertion that Option B was better than the status quo does not tell us whether Option C or D would have been better yet.) Moreover, the reliability of the *post hoc* analyses that now support Citizens' decisions is certainly suspect, since it is in the Company's clear interest now to demonstrate the propriety of its actions. And, lastly, nothing in the Company's pleadings justifies its failure to come before the Board and the public for *prior* approval of its proposed investments.

We must note, with disappointment, that this is not the first time that Citizens has made these kinds of arguments to justify its circumvention of the law. In Docket No. 5625, we investigated allegations that the Company had failed to obtain prior approval for a transmission line upgrade and for a special contract. We rejected the Company's arguments that, because its actions produced cost-savings for ratepayers, its failure to satisfy the requirements of Title 30 should not be punished. We levied fines of $10,500 "for its deliberate, avoidable, and undisputed violations of the specific requirements of 30 V.S.A. §§ 229 and 248." Docket No. 5625, Order of 3/28/94 at 1 (see also 26-28 and 31-33).

F. BLFTA Loss Adjustment Factor

554. The Block Loading Facilities Transmission Agreement ("BLFTA") is an agreement dated February 15, 1989, between Citizens and six other Vermont electric utilities: CVPS, the three Villages, Vermont Marble, and Franklin Electric Light Company ("Franklin").[215] Exh. Board-3.

555. Under the BLFTA, Citizens provides transmission capacity for approximately 25 MW of power and energy from Hydro-Quebec to the Block Loading participants through the year 2015. Exh. Board-3 at 7, 28;[216] Docket No. 5331, Order of 10/12/90 at 11.

556. The BLFTA provides that:

> Unless and until modified pursuant to Subsection 2.05.1, transmission capacity and associated energy received from Hydro-Quebec and allocated for delivery to Block Loading Participants shall be adjusted for losses in the amount of five percent (5%) due to transmission within Citizens' Transmission System up to the respective delivery points.

Exhibit Board 3 at 10, § 2.05.

557. The BLFTA provides for modification to the loss adjustment factor "[i]f the analysis of experienced incremental losses indicates that the losses are materially different than that set forth in Section 2.05, . . ." Exhibit Board 3 at 10, § 2.05.1

558. In proceedings at FERC, Citizens has sought to modify the five percent loss adjustment factor. Oppel pf. 5/15/96 at 32.

559. In the current proceeding, Company witness Clayton initially claimed that the BLFTA loss adjustment factor should be revised to 9.98 percent. Clayton pf. 8/20/96 at 22, 29.

560. Department witness Oppel initially calculated the appropriate loss adjustment factor to be less than three percent. Oppel pf. 5/15/96 at 33-34.

561. Mr. Clayton and Ms. Oppel subsequently modified their calculations of the loss adjustment factor. The final loss adjustment factor recommended by Mr. Clayton is

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215. Citizens subsequently purchased the Franklin system. Docket No. 5683, Order of 7/23/93. Additionally, counsel for Citizens represented that the Village of Swanton has withdrawn from the BLFTA. Tr. 2/4/97 at 41 (Maher).

216. There are two differing sets of page numbers on Exhibit Board-3; all page references herein are to the numbers in the upper right-hand corner of the pages.

approximately 7.5 percent, and by Ms. Oppel, approximately 4.05 percent. Clayton pf. reb. 1/24/97 at 12, 17; Oppel pf. reb. 1/24/97 at 1, 12.

562. VED's load factor and loss factor are among the inputs in the calculation of the BLFTA loss adjustment factor. A load factor is the average system loading over a specified period of time, divided by the peak system loading for that time period. A loss factor is the average system losses over a specified period, divided by the peak system losses for that period. Clayton pf. 8/20/96 at 14-15, 26.

563. Mr. Clayton's revised estimate of the BLFTA loss adjustment factor differs from his original estimate only in the use of actual load data for 1995 and for 1996 through October. Using these actual data, Mr. Clayton calculated a revised annual load factor of 57.75 percent and a revised annual loss factor of 35.4 percent. Clayton pf. reb. 1/24/97 at 2, 4-7.

564. In his original estimate of the BLFTA loss adjustment factor, Mr. Clayton estimated the annual load and loss factors to be 77.6 percent and 63.2 percent, respectively. He derived these figures using load data from only April and May of 1996. Mr. Clayton testified that these data represent average levels of consumption and thus "are reasonable proxies for annual load factors. Ideally, one would use daily load duration curves, but the results are not expected to change significantly." Clayton pf. 8/20/96 at 26-28; tr. 10/28/96 vol. I at 167 (Clayton); exh. DPS-Cross-6.

565. In fact, the April-May load data are not representative of Citizens' yearly load. The April-May months do not reflect the diversity (peaks and valleys) of the full year. Also, for Citizens' system, April and May are below average energy consumption months; basing an annual load factor calculation on low consumption months would tend to overstate the load factor. Oppel pf. reb. 1/24/97 at 2; exh. DPS-LJO-1.

566. In his original calculation of load factor, Mr. Clayton also divided the average of the average load duration curve by the peak of the average load duration curve. Although Mr. Clayton indicted that this method was "conceptually" the same as following the definition of load factor set forth above, that is not the case. By using the average of an average curve and by taking the peak from the average curve (*i.e.*, not the actual peak), Mr. Clayton artificially

suppressed peak diversity and thus substantially overstated the load factor. Tr. 10/28/96 Vol. I at 172 (Clayton); Oppel pf. reb. 1/24/97 at 2.

567. In its 1994 IRP, Citizens presented its annual load factor as approximately 62 percent. This is the load factor that Ms. Oppel used in her original calculations. She applied a formula method to this load factor to estimate the annual loss factor. Oppel pf. 5/15/96 at 31.

568. Ms. Oppel's revised estimate of the BLFTA loss adjustment factor reflected several changes from her original testimony, in order to correct errors and to reflect additional information that the Department had subsequently received from Citizens. Oppel pf. reb. 1/24/97 at 8-13; *see also* tr. 10/16/96 Vol. II at 43-44 (Oppel); tr. 10/17/96 Vol. I at 48-51 (Oppel).

569. The major differences between Mr. Clayton's and Ms. Oppel's revised analyses of the BLFTA loss adjustment factor include the following issues: voltage at the Border Substation; modeling of 46 kV transformers; Citizens' "own load"; use of contract demand; and conductor temperature. Clayton pf. reb. 1/24/97 at 2-17; Oppel pf. reb. 1/24/97 at 1-12.

570. In his analysis, Mr. Clayton modeled the voltage at the Border Substation at .988 per unit ("pu"). Ms. Oppel used a voltage maintained at 1.0 pu (i.e., 120 kV). Clayton pf. reb. 1/24/97 at 11; Oppel pf. reb. 1/24/97 at 10.

571. The actual voltage at the Border Substation at system peak in 1994 was .988 pu. Clayton pf. 8/20/96 at 20; Clayton pf. reb. 1/24/97 at 11.

572. In modeling the VED system for his determination of the BLFTA loss adjustment factor, Mr. Clayton included 46 kV step-down transformers. By including the 46 kV step-down transformers in his model, Mr. Clayton did not include the losses on those transformers in his loss calculation. Instead, he included the transformers in an attempt to more closely model the physical reality of the system, because the presence of those transformers has an indirect effect on the 46 kV and 120 kV system losses. Clayton pf. 8/20/96 at 24; Clayton pf. reb. 1/24/97 at 13-15; tr. 2/3/97 at 257-258, 267-269 (Clayton); tr. 2/4/97 at 49-52 (Clayton).

573. The Department contends that the 46 kV step-down transformers should have been excluded because they do not constitute part of Citizens' "transmission system" as that term is defined in the BLFTA. Under the BLFTA, the loss adjustment factor is intended to

adjust for losses "due to transmission within Citizens' Transmission System up to the respective delivery points." The BLFTA defines "Citizens' Transmission System" as "[t]he present or future transmission system owned and operated by Citizens consisting of circuits and facilities at operating voltages of 46 kV and above, as provided for as TPA in Section 3.03.2." Section 3.03.2 provides that TPA "shall be the sum of the Transmission Plant Accounts as reported under the Uniform System of Accounts (Accounts 350 to 3599), less applicable depreciation." Oppel pf. reb. 1/24/97 at 6; exh. Board 3 at §§ 1.01.4, 2.05, and 3.03.2.

574. In his model of BLFTA losses, Mr. Clayton added the BLFTA load after the Company's own retail load and after its non-BLFTA wholesale load. The Department contends that the BLFTA load should be added immediately after the retail load. Clayton pf. reb. 1/24/97 at 9-10; Oppel pf. reb. 1/24/97 at 8.

575. Mr. Clayton modeled the BLFTA load as the full load possible under that contract, rather than as the actual experienced BLFTA deliveries. While Ms. Oppel modeled both loads, she contended that the actual deliveries should be used; her recommended loss adjustment factor of 4.05 percent was based on actual BLFTA deliveries. Oppel pf. reb. 1/24/97 at 11-12; tr. 10/28/96 at 187 (Clayton).

576. The BLFTA provides that "[i]ncremental losses shall be computed by modeling the incremental load in terms of Contract Demand as being added immediately after Citizens' own load, . . ." It defines the term, "Contract Demand," as follows: "Each Block Loading Participant shall be entitled to transmission capacity from Hydro-Quebec at Derby Line, Vermont, or at other receipt points mutually agreed upon by the Parties, which agreement shall not be unreasonably withheld, to their respective delivery points, in the amount set forth on Appendix A hereof." Exhibit Board 3 at §§ 1.01.5, 2.05.1.

577. Mr. Clayton's model of BLFTA losses assumed a conductor temperature of 50^{N}C. Clayton pf. reb. 1/24/97 at 8, 10-11.

578. Mr. Clayton selected 50^{N}C for the assumed conductor temperature because that is an assumption that has been used by VELCO, Green Mountain Power Corporation and New England Electric System. However, Mr. Clayton did not know whether these other utilities

use the 50^{N}C assumption for calculating losses under a transmission contract or tariff. Clayton pf. reb. 1/24/97 at 10-11; tr. 2/4/97 at 14, 16-17 (Clayton).

579. Mr. Clayton did not attempt to determine whether his assumed conductor temperature of 50^{N}C is a realistic assumption for the BLFTA transmission facilities. In fact, that is not a realistic assumption; an appropriate assumed conductor temperature would be 25^{N}C or less. Tr. 10/28/96 at 176 (Clayton); tr. 2/4/97 at 12-22 (Clayton); Oppel pf. reb. 1/24/97 at 4-5, 8; exh. DPS-LJO-5.

580. Because line resistance increases with temperature, use of an excessive conductor temperature in modeling BLFTA losses will result in an overstatement of losses. Oppel pf. reb. 1/24/97 at 8; exh. DPS-LJO-5; tr. 2/4/97 at 17-18 (Clayton).

Discussion re BLFTA Loss Adjustment Factor

The BLFTA is an agreement under which Citizens provides transmission capacity for delivery of power from Hydro-Quebec to several Vermont electric utilities. To account for the line losses that occur during the transmission through Citizens' system, the BLFTA specifies a loss adjustment factor. Citizens has been seeking to change this adjustment factor at FERC. The Department cites Citizens' attempts to modify the loss adjustment factor, and the analysis the Company has presented as part of that effort, as further evidence of poor management practices.

Citizens contends that the BLFTA is within the exclusive jurisdiction of FERC, and that thus "BLFTA issues are before this Board, if at all, for the sole purpose of ascertaining how they may impinge on the prudence of Citizens' construction practices."[217] Even if the contract is FERC-jurisdictional, Citizens' actions taken pursuant to the BLFTA, including but not limited to its construction practices, are certainly relevant to our investigation in Docket No. 5841. Thus, to the extent that Citizens' efforts at FERC raise questions related to the Company's conduct in Vermont, this Board can examine that activity. For purposes of this proceeding, we need not rule on the correct interpretation of the BLFTA contract, but instead we will review the reasonableness of Citizens' conduct in matters respecting the BLFTA.

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217. Citizens Brief 4/7/96 at 167-168.

By the time rebuttal testimony was filed, the differences between the Company's and the Department's witnesses on the BLFTA loss adjustment factor had been narrowed to a few significant issues. While we need not, and will not, attempt to issue a binding interpretation of the BLFTA with respect to the loss adjustment factor, we will address the reasonableness of Citizens' positions.

Although the Company later revised its position on the issue, its original position with respect to load and loss factors appears to have been unreasonable and unjustified. Citizens' witness originally supported an annual load factor of 77.6 percent, while contending that Ms. Oppel's value of 62 percent was "inappropriately low" and "substantially too low."[218] Similarly, Mr. Clayton initially claimed that the appropriate annual loss factor should be 63.2 percent, and that the Department's proposed value of 38.4 percent was the result of "a significant downward bias" in Ms. Oppel's testimony, and was "the lowest possible value of loss factor through an unfounded interpretation of a rule-of-thumb formula."[219]

At the hearings, despite numerous questions stretching over two days, Mr. Clayton appeared unwilling or unable to provide a clear explanation of how he calculated his original load factor.[220] As it turned out, when actual data were finally made available by Citizens, Mr. Clayton's own revised calculations revealed that it was Mr. Clayton's original proposed load and loss factors that were substantially out of bounds, and that Ms. Oppel's were in fact conservative. While incorrect assumptions and erroneous calculations are not uncommon, we conclude that in these circumstances Citizens not only put forward an unfounded position, but also either knew or should have known the unreasonableness of its position. Citizens knew, or should have known, that the April-May data its consultant originally used were not, as he had claimed, representative of annual consumption levels. Citizens certainly knew, or should have known, that the load factor that its consultant originally calculated was inconsistent with the 62 percent load factor that the Company itself stated in its 1994 IRP.

Turning to the specific remaining contested issues on the loss adjustment factor, we generally conclude that Citizens' positions do not appear unreasonable. The first issue is the

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218. Clayton pf. 8/20/96 at 30.
219. Clayton pf. 8/20/96 at 16, 30.
220. Tr. 10/28/96 at 138-174; tr. 10/29/96 at 4-32 (Clayton).

voltage level at the Border Substation. Citizens witness Mr. Clayton explained that he used 0.988 pu for the Border voltage based on actual experience at peak. On behalf of the Department, Ms. Oppel used 1.0 pu, but did not provide an explanation for this figure, and did not include the 0.988 pu voltage among the errors that she found in Mr. Clayton's analysis. Consequently, based on our record, Mr. Clayton's use of 0.988 pu appears reasonable.[221]

The second remaining contested issue with respect to the BLFTA loss adjustment factor is the inclusion of 46 kV step-down transformers in the model. We conclude that Mr. Clayton's inclusion of the transformers in his model, and exclusion of the losses on those transformers from his loss calculation, appears to be a reasonable interpretation of how losses are to be modeled under the BLFTA. Thus, we conclude that Citizens acted reasonably with respect to this issue.

The third contested BLFTA issue is the meaning of "Citizens' own load," as that term is used in the BLFTA. The Company contends that its own load includes its non-BLFTA wholesale load, while the Department argues that own load is limited to Citizens' retail load. We would generally understand the term "own load" to refer only to retail load, and thus we believe that this would be the better interpretation of that term. However, Citizens' position on this issue is not entirely unreasonable. The requirement that the BLFTA load be modeled immediately after the Company's own load could have been intended to give the BLFTA load priority in the modeling before the load of any other transmission customers but after all of Citizens' load, including both wholesale and retail.[222] Thus, while it appears to us that Citizens' interpretation of "own load" may be incorrect, we nonetheless conclude that the Company's position is within the range of good-faith argument.

The fourth contested issue is whether to model the participants' maximum possible demand under the BLFTA, or their actual experienced demand. On this issue, we believe the BLFTA to be unclear. Although it purports to define the term "Contract Demand" in Section

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221. We stress that on this issue and the other contested issues concerning the BLFTA loss adjustment factor, we are not determining the proper interpretation of the BLFTA.

222. Mr. Clayton offered this interpretation of the contractual language. Tr. 2/4/97 at 59-60 (Clayton).

1.01.5, unlike the other definitions in Section 1.01, the description provided for "Contract Demand" does not read like a definition. Instead, Section 1.01.5 describes the participants' entitlements to transmission capacity, but does not clearly define "Contract Demand." Consequently, on this issue, Citizens' position is within the range of reasonable interpretations of the BLFTA.

Finally, the parties disagreed on the appropriate conductor temperature to assume in the loss analysis. Based on the evidence in the record, we conclude that there appears to be no reasonable basis for Citizens to use an assumed conductor temperature of 50^{N}C. Mr. Clayton obtained this value from other utilities without knowing whether they used the value for purposes analogous to calculating the BLFTA load adjustment factor. It appears that even a minimal inquiry would have demonstrated that 50^{N}C is not a realistic assumption for use in the BLFTA loss adjustment calculation.

In summary, we conclude that Citizens' initial position with respect to load and loss factors was unreasonable, as is its position with respect to conductor temperature. Its positions on voltage at the Border Substation, inclusion of 46 kV step-down transformers, interpretation of "own load," and use of full contract demand appear to be reasonable.[223]

We recognize that Citizens' positions with respect to the BLFTA loss adjustment factor are ones that have been taken in the context of contested proceedings. We also acknowledge that in contested cases, parties can (and often do) legitimately assert positions on which they do not expect to ultimately prevail. We nonetheless expect a regulated utility not to take positions, nor provide its regulators with testimony, that it knows or should know to be unfounded. Citizens' initial position and testimony with respect to load and loss factors had no reasonable basis and were inappropriate. The Company's continued position and testimony with respect to conductor temperature appears to be similarly unfounded, based on the evidence we have heard.

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223. We do not mean to imply, nor do we conclude, that the Department's positions on Border voltage, 46 kV transformers, own load and Contract Demand are unreasonable. We also do not conclude that either Citizens' or the Department's arguments are correct. We have focussed on the reasonableness of the Company's positions because that is the relevant issue in this investigation of the Company.

G. Capacity of 120 kV Line

581. In Docket No. 5331, Citizens proposed and we approved a 120 kV transmission line that "is designed to accept the full 100 MW capability from Hydro-Quebec at Derby Line." Docket No. 5331, Order of 10/12/90 at 11; Oppel pf. reb. 1/24/97 at 17.

582. As constructed, for the 120 kV transmission line to accept 100 MW from Hydro-Quebec, Citizens must reinforce the system, such as through the addition of a capacitor, or BLFTA participants must supply their own reactive power requirements. Clayton pf. 8/20/96 at 37-39; Oppel pf. reb. 1/24/97 at 17.

Discussion re Capacity of 120 kV Line

The Department contends that Citizens failed to construct the 120 kV line as had been proposed and approved in Docket No. 5331, because the line cannot accept 100 MW of load from Hydro-Quebec without reinforcement.[224] Citizens argues in response that the line is adequate for current loads, that normal reinforcement can accommodate load growth up to the 100 MW level, and that it is prudent of Citizens not to increase the line's capacity until it is necessary.[225]

Citizens did not explain in Docket No. 5331 that its proposed facilities would not be capable of carrying the 100 MW from Hydro-Quebec. We approved construction of the line in that Docket with the understanding that it could transmit the entire load from Hydro-Quebec. Were this shortcoming an isolated instance, we would not be overly concerned; however, Citizens has exhibited a consistent pattern of failure to disclose complete and accurate information in the regulatory process. That pattern has been repeated in the Company's construction of the 120 kV line with a capacity different from that which it had represented.[226]

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224. DPS Brief 4/7/97 at 47-48.

225. Citizens Brief 4/7/97 at 182-183.

226. Of course, given the situation that now exists, we agree with Citizens that it is reasonable for it not to add reinforcements to the line until needed.

H. Reliability of 120 kV Transmission Line

1. Lightning

583. Citizens has experienced a high number of lightning-related outages on the 120 kV line between its Border Substation and Highgate. From 1994 to 1996, Citizens experienced an average of 6 lightning-related outages per year on the line. This line is approximately 55.5 miles long. Clayton pf. reb. 1/24/97 at 17-18, 20; Oppel pf. reb. 1/24/97 at 15; exh. CUC-REC-15; exh. DPS-LJO-16; exh. DPS-LJO-18.

584. REA Bulletin 62-1, "Design Manual for High Voltage Transmission Lines," indicates that an acceptable lightning outage rate is one to four outages per hundred miles per year. According to that Bulletin, "[f]or satisfactory lightning performance of a line, low footing resistance is essential." Bulletin 62-1 also states that "[g]enerally, experience has shown that the footing resistance of individual structures of the line especially within .8 kilometer (.5 mile) of the substation should be less than 30 ohms." Exh. CUC-REC-24 at VIII-8.

585. Citizens' 120 kV line was designed with a footing resistance of 50 ohms. Oppel pf. reb. 1/24/97 at 16; Clayton pf. reb. 1/24/97 at 19.

586. Citizens witness Clayton performed an analysis of the expected lightning performance of the design of the 120 kV line, using lightning data for northern Vermont, actual tower dimensions, and the 50 ohm footing resistance. His analysis predicted a lightning outage rate of 12.80 outages per 100 miles per year on the line segment between Border and Richford, and a rate of 8.47 lightning outages per 100 miles per year on the segment from Richford to Highgate. Given these expected outage rates and the lengths of the line segments, Mr. Clayton's analysis predicts an average of 6.15 lighting outages per year for the entire line. Clayton pf. reb. 1/24/97 at 18-21.

587. Department witness Oppel testified that the Company will need to remedy the number of lightning-related outages that it has experienced on the 120 kV line. She recommends that Citizens "should first examine the actual footing resistance of each structure to ensure that it does not exceed 50 ohms, as the design assumed. If high footing resistances are encountered, CUC VED should consider installing additional, deeper ground rods or

counterpoise to bring the footing resistance as low as possible, with 20-25 ohms as a target." Oppel pf. reb. 1/24/97 at 16.

588. Citizens witness Clayton "has no substantial differences with Ms. Oppel's technical conclusions regarding the [lightning] performance of the line nor her recommendations regarding measures that might remedy the performance of the line." Tr. 2/3/97 at 256 (Clayton); *see also* Clayton pf. reb. 1/24/97 at 21.

Discussion re Lightning

Although we have only three years of data on lighting outages on the 120 kV line, those data indicate a level of outages substantially beyond that which would be expected on a properly designed line. The standard that Citizens itself presented, from REA Bulletin 62-1, calls for lightning outage performance of one to four outages per hundred miles per year. Over the three year-period for which we have information, Citizens' 120 kV line has experienced 18 outages, an average of six per year on this 56 miles of line; Citizens' own analysis confirms that this average is what is expected for the line as it has been designed.[227]

The fact that Mr. Clayton's analysis shows that the design of the line is expected to produce the number of lightning outages that are actually being experienced begs the question of whether the line was designed with sufficient lightning protection. Citizens' Exhibit CUC-REC-24, the REA Bulletin, indicates that the design was deficient. The REA Bulletin reveals that the expected and actual lighting outages on Citizens' 120 kV line are excessive. The REA Bulletin further indicates that Citizens' design assumption of a footing resistance of 50 ohms was insufficient.

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227. Citizens witness Clayton provided both the experienced and the expected number of outages on the 120 kV line in absolute terms, not in terms of outages per hundred miles. Clayton pf. reb. 1/24/97 at 17-18, 20; exh. CUC-REC-15. The 120 kV line in question is approximately 55.7 miles long. It thus appears from Mr. Clayton's testimony and associated exhibits that the experienced and expected lighting performance for the 120 kV line is approximately 11 lightning outages per hundred miles per year. ($6 \div 55.7 \times 100 = 10.77$; $6.15 \div 55.7 \times 100 = 11.04$). However, even if Mr. Clayton's average of 6 outages per year was in fact (although not stated) in units of outages per hundred miles, our conclusions would not change; an average of 6 outages per hundred miles per year is still substantially greater than the acceptable range of 1 to 4 outlined in REA Bulletin 62-1.

In its brief, Citizens states that the Company has committed to evaluate the lightning performance and design of the line, and to implement remedial actions that are required.[228] We instruct Citizens to do so, and to provide to the Board and Department a report of the results of this evaluation and proposed remedial measures. We are especially concerned that the insufficient footing resistances not only are compromising service reliability, but also could present safety issues for line workers. Accordingly, in its study of the footing resistances, Citizens shall also evaluate whether those resistances present any worker safety issues and, if so, the Company must identify appropriate remedial measures. Given our concerns, we will require Citizens to submit its report within sixty days of the date of this Order. If Citizens believes that it cannot complete the report within that time frame, then within two weeks of the date of this Order, it shall so notify the Board and Department, provide the reasons for its inability to meet the deadline, and propose the earliest date by which it reasonably can complete the report; we will then decide whether to modify the deadline for submission of the report. In this event, Citizens shall still be required to evaluate as fully as possible the worker safety issues, and submit a report on those issues, within sixty days of this Order.

2. Icing and Ice Galloping

589. Ice accumulation on the conductors of a transmission line can result in outages. The ice can cause a conductor to sag into a lower conductor, or ice falling off a conductor (generally referred to as ice unloading) can cause that conductor to jump and come into contact with a higher conductor. Both events produce an electrical arc, or flashover, causing circuit breakers to open. Oppel pf. 5/15/96 at 27.

590. The National Electrical Safety Code requires that overhead lines in Vermont be designed to accommodate one-half inch of radial ice on the conductors. This criterion was used in the design of Citizens' 120 kV line from the Border Substation to Richford. Specifically, the line was designed to provide sufficient minimum conductor separations under a loading of one-half inch of radial ice. Henriksen pf. 8/20/96 at 40, 47; tr. 10/29/96 at 136 (Henriksen).

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228. Citizens Brief 4/7/97 at 91.

591. Citizens' 120 kV line was constructed to accommodate one inch of radial ice without *structural* failure. However, the line cannot withstand an unloading of one inch of ice without causing phase-to-phase contact. Tr. 10/29/96 at 136 (Henriksen); exh. CVPS-DGW-1 at 3.

592. In December 1995 and January 1996, a winter storm of snow, ice, and rain deposited a coating of ice on the 120 kV line in the vicinity of Jay Peak. The weight of this accumulation very likely exceeded that of one inch of clear ice. This storm resulted in a number of outages on the line, probably from ice unloading from the conductors causing the conductors to contact either a conductor above or the overhead ground wire. The storm did not result in any structural damage to the line. Henriksen pf. 8/20/96 at 48-49; Avery pf. 8/20/96 at 42-43.

593. CVPS and VELCO design their transmission lines using a criterion of 1-1/2 inches of radial ice, except for the VELCO 450 kV VDC line which uses a 2-inch design criterion. Exh. CVPS-DGW-1 at 3.

594. The parties presented conflicting testimony regarding the likelihood of radial ice loadings in excess of one-half inch. The Company relies heavily on its own experience with icing on the 46 kV line that previously existed in the same corridor as the 120 kV line. The Department relies on the design practices of other utilities in the region and regional weather data. Clayton pf. 8/20/96 at 45; Oppel pf. reb. 1/24/97 at 14; exh. DPS-LJO-14.

595. "Ice galloping" can occur when ice has accumulated on the conductors, and the wind is blowing against the conductors. These conditions can cause the conductors to oscillate and thus contact one another, tripping a circuit breaker and causing a power outage. Ice galloping is difficult to predict. Oppel pf. 5/15/96 at 25-26; Henriksen pf. 8/20/96 at 38.

596. The design of Citizens' 120 kV line apparently estimated the potential for ice galloping under conditions of a 32^{N}F temperature, one-half inch of ice, and no wind, and assumed no galloping on spans longer than 600 feet. The design also allowed galloping ellipses to overlap by up to 30 percent, in some protected locations, for economic reasons and to minimize pole heights. These assumptions may not be justified. Oppel pf. 5/15/96 at 26.

597. Offsetting the middle phase of each circuit could reduce the risk of ice galloping. It would also reduce the risks of conductor sagging or jumping from ice loading. Offsetting

the middle phase of three circuits is standard design practice for other New England utilities. Oppel pf. 5/15/96 at 27; tr. 10/18/96 at 35-37 (Watts); exh. CVPS-DGW-3 at 2.

598. Citizens contends that its design is adequate with respect to ice galloping because the 46 kV line that previously existed in the same corridor had no history of ice galloping. The Company also notes that should ice galloping become a problem, the line can be retrofitted with devices that preclude galloping. Henriksen pf. 8/20/96 at 41.

599. Citizens' double-circuit construction on the 120 kV line has less vertical clearance between conductors than does the single-circuit construction on the line. Clayton pf. 8/20/96 at 41, 46-47.

Discussion re Icing and Ice Galloping

Department witness Oppel has presented substantial evidence calling into serious question the design and construction of this line with respect to icing issues. It appears to us that Citizens has likely failed to provide sufficient protection from icing problems. However, because we have determined (in Part Two, Subpart II(A) of this Order) that Citizens' revisions to the 120 kV line must be submitted to us for review and approval under Section 248, we need not reach a firm conclusion here on the appropriateness of Citizens' design criteria for icing on the line. We believe that issue to be more appropriately addressed as part of the Section 248 review. This is especially true because the Company's revision of the project to a double circuit design apparently reduced separations between conductors, and thus may have affected ice loading capabilities of the line.

3. Outage History

600. Citizens' 115 kV transmission line from Newport to Highgate supplies power from Hydro-Quebec to CVPS's Sheldon substation. The substation has been connected electrically to Citizens' system since March 18, 1994. Exh. CVPS LMW-1 at 2.

601. The outage records for the Sheldon substation from March 18, 1994, to May 13, 1996, show that there were 21 actual service interruptions during the period. Service interruptions are outages which resulted in interruptions of electric service to customers; line

disturbances, which created problems but no actual outages to customers, are not included in the 21 interruptions. Exh. CVPS LMW-1 at 3; exh. CVPS LMW-2.

602. Of the 21 interruptions, approximately 12 to 15 were related to a problem with a guy wire. Citizens was unable to locate the faulty guy wire in a timely manner due to inaccurate relay settings, which had been determined in a study performed by Cooper Power Systems. Other outages during that time period resulted from lightning and ice loading. Guyette pf. 8/20/96 at 55-60.

603. During the period of May 20 through July 23, 1996, CVPS experienced six more outages from Citizens' system. Tr. 10/18/96 vol. I at 56-5 (Wright); exh. CVPS LMW-2A.

604. On the VELCO system that typically has been used to supply service to the CVPS Sheldon substation, there were only two VELCO service interruptions since 1987. This portion of the VELCO system is roughly equivalent in length to the Citizens' transmission system. Exh. CVPS LMW-1 at 4; exh. CVPS LMW-3.

605. The outages are not attributable to the fact that the line is new. Many of the outages on this line have been the result of its design, and other Vermont utilities seldom experience problems with new transmission facilities, including facilities with terrain and weather as severe as the Jay Peak area. Watts pf. reb. 1/21/97 at 3-4.

606. The level of outages causing interruptions of service to customers on Citizens' transmission system is higher than it should be. Exh. CVPS LMW-1 at 4; tr. 10/18/96 vol. I at 63 (Wright); findings 600-605.

Discussion re Outage History

Citizens' 120 kV line has experienced an excessively high number of outages. Citizens contends that the outages were "normal start-up problems" or "`break-in' adjustments."[229] We do not agree with this characterization. Many of these outages have been the result of design problems, and the frequency of outages is atypical of new construction for analogous facilities in Vermont.

229. Avery pf. 8/20/96 at 37, 43.

We will expect Citizens to address the outage problem, and to propose remedies for unresolved problems, in the Section 248 review of the revised 120 kV line.

I. Diesel Maintenance

607. Citizens owns seven diesel generators. Exh. CUC SJL-1.

608. The diesel units are over 50 years old and were used equipment when originally installed by the Company approximately 40 years ago. Avery pf. 8/20/96 at 59.

609. There is little, if any, evidence that an appropriate, applicable preventive maintenance and inspection program was in place and being adhered to on a routine basis. Millspaugh pf. 8/23/96 at 8-9.

610. Maintenance on the diesels was "virtually nonexistent." Exh. DPS-Cross-29.

611. The lack of maintenance on the diesel engines has caused them to seriously deteriorate. Millspaugh pf. 8/23/96 at 29.

612. The Company cannot get the machines to run for even ten hours consecutively. Exh. DPS-Cross-31 at 46.

613. The Company presented a study that showed that deferring the preventive maintenance and periodic rehabilitation provided VED customers with approximately $1.1 million in present value savings over the last twenty years. Lacasse pf. 8/20/96 at 6; exh. CUC-SJL-1.

614. The Department maintains that it would not be necessary to completely refurbish the diesel engines as now proposed by Citizens had they been maintained in a manner consistent with reasonable engineering practice. Millspaugh pf. 8/23/96 at 33.

615. In the opinion of the Department, the benefits of adequate preventive maintenance programs far outweigh the disadvantages. Millspaugh pf. 8/23/96 at 33.

Discussion re Diesel Maintenance

Citizens acknowledges that there was virtually no maintenance on the diesel units. The Department asserts that the Company did not follow reasonable engineering practices in maintaining the diesel units. The Department also maintains that this failure has led to a serious deterioration in the units. The complete refurbishment of the diesel units would not be

necessary had they been maintained in a manner consistent with reasonable engineering practices.

The Company responds to the Department's position by asserting that, whether or not the units were maintained at levels prescribed by the Department, the level of maintenance applied was in fact reasonable for the service provided by the units (generally limited to meeting its capability responsibility with very limited operation).[230] The Company also asserts that its economic study of the issue demonstrates ratepayer savings.[231] The Department, however, calls into question the conclusions in the Company's economic study and the underlying assumptions used in the analysis.[232] The Department also questions whether the Company has accurately characterized the full service requirements of the units in limiting the prescribed need to capability responsibility. The Department suggests, for example, that the units may be needed for "area support" in the case of a disaster involving transmission outage.[233]

The Company has produced a study that shows that its practices with respect to the diesels generated cost savings for ratepayers. The Department responded by indicating that the benefits of preventive maintenance, not performed by the Company, outweigh its costs. We are not persuaded that the Company's study was altogether inadequate. At this time, we are unable to conclude that the Company has acted imprudently by not maintaining the diesel units consistent with the minimal maintenance levels recommended by the Department.

J. Demand-Side Management Programs

In the rate case portion of this proceeding, the Hearing Officer heard testimony on a myriad of DSM issues. After reviewing the record, he issued a Proposal for Decision ("PFD") which found that Citizens had not met its burden of proof to establish the dollar amounts claimed for DSM expenditures. The PFD cited the evidence demonstrating general disarray in Citizens' DSM and AFUDC accounts. And, by its own admission, Citizens has

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230. Citizens brief 4/7/97 at 192.
231. Citizens reply brief 4/18/97 at 188-191.
232. DPS Reply Brief 4/18/97 at 57.
233. DPS Reply Brief 8/18/97 at 56.

not met its burden of proof of showing that its accounts are in order. Consequently, the Hearing Officer recommends that the Company not be allowed recovery of any amount for DSM, AFUDC or ACE.[234]

Citizens, in its brief on exceptions to the rate case PFD, did not contest the Hearing Officer's recommendation on the treatment of DSM in the rate case, with one exception, that being the Hearing Officer's recommendation that Citizens not be allowed to accrue AFUDC on unrecovered DSM balances from the date of the Board Order in this Docket until the final order in Citizen's next rate case.[235] Therefore, since Citizens did not contest the general recommendation of full disallowance of past DSM, ACE, and AFUDC costs for which it sought recovery, we have accepted the recommendation of the Hearing Officer, except as modified by the Board discussion on the PFD.[236]

Because we have disallowed in full the DSM, ACE, and AFUDC costs on the basis of insufficient documentation, we need not quantify today the specific disallowances that would follow from our findings (below) that the Company has failed in its obligations to design and implement cost-effective DSM programs. Since we have not reached any conclusions about disallowances as a consequence of program mismanagement, these are matters that may be addressed in future proceedings.

We must point out, in addition, that the return on equity reduction that we order in the rate case is based, in part, on our conclusion here that Citizens' management of its DSM programs has been imprudent.

Citizens' brief on exceptions also makes the point that we should consider penalties separately from disallowances. We concur. While we are constrained by the lack of verifiable documentation of Citizens' DSM costs from making specific dollar disallowances for individual programs in either of these Dockets, we can nonetheless make judgments as to the prudence and reasonableness of Citizens' management with respect to its DSM programs, both generally and with respect to specific programs. A judgment against Citizens for imprudent or inadequate management of its DSM programs is a sufficient basis for the

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234. *See* PFD in Docket No. 5859 at pp. 79-99 incorporated herein.
235. Citizens Brief on Exceptions 5/27/97 at 6.
236. *See*, Part One, Subpart V(C) of this Order.

penalties imposed in this Docket. Such issues are appropriately reviewed in these Dockets. As noted in our Scoping Order, the Board is interested in whether Citizens' actions are consistent with prudent utility practice. The design, implementation, and delivery of comprehensive energy efficiency programs is a fundamental requirement under Vermont law for regulated utilities.[237] A failure to meet these requirements is not consistent with prudent utility practice.

1. DSM Planning and Screening

a. DSM Accomplishments

616. Citizens' 1994 DSM accomplishments were substantially lower than projections. Annualized energy savings were only 59 percent of projections (5,052 MWh instead of 8,578 MWh), lifetime energy savings were only 36 percent of projections, and the number of participants was only 43 percent of projections. Welch pf. 8/23/96 at 8.

617. Citizens' 1995 DSM program accomplishments, as reported in its 1995 DSM Annual Report, are compared to projections in its revised IRP filed on June 15, 1995. Those projections were substantially lower than the projections in Citizens' July 1994 IRP filing (which were adapted from Citizens' 1991 collaborative filing) and included in Citizens' 1994 DSM annual report. The DPS based its assessment of Citizens' 1995 DSM accomplishments upon the 1994 IRP projections. Welch pf. 8/23/96 at 8-9; Welch pf. reb. 12/11/96 at 1-3.

618. A comparison of the reported 1995 DSM accomplishments to the projections contained in the 1994 IRP shows that only 54 percent of the projected annualized energy savings were realized, and only 44 percent of the lifetime savings were acquired, while the utility spent 60 percent of the projected utility costs. The difference in accomplishments is particularly acute for the Residential Retrofit, Lighting and Appliance, and Small C&I Retrofit programs. Welch pf. 8/23/96 at 9.

619. Citizens asserted the DPS analysis was flawed as it did not take into consideration the impact of the change in free-ridership values from the 1994 IRP to the June 15, 1995,

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237. *See*, 30 V.S.A. § 218c and Docket No. 5270, Order of 4/16/90.

filing and it did not account for the removal of the direct load control component from the Residential Retrofit Program. Shepherd pf. reb. 12/11/96 at 5-6.

620. The DPS undertook an analysis that removed the impact of direct load control from the utility costs and used gross savings amounts for the two programs with the greatest change in free ridership values. While gross savings are not an appropriate indicator of DSM program performance, the analysis was undertaken to determine if Citizens' concerns would result in a different conclusion regarding Citizens' 1995 DSM program performance. Welch pf. reb. 12/11/96 at 2; tr. 12/20/96 at 64 (Welch).

621. The results of this analysis support the same overall conclusion: while the magnitude of the difference is slightly smaller, the 1995 DSM program accomplishments reported in the Company's 1995 DSM annual report reflect a significant reduction in program implementation when measured against the projections contained in Citizens' 1994 IRP. Welch pf. reb. 12/11/96 at 3; exh. DPS-CEW-8.

622. In 1996, Citizens underspent its DSM budget by 34 percent and fell short of annualized Mwh savings goals by 35 percent if carry-over from previous programs was not included. Lass pf. 1/24/97 at 16.

b. Least-Cost Planning and DSM

623. On July 9, 1994, Citizens filed an IRP that essentially proposed to continue implementing its 1991 collaboratively designed DSM programs approved by the Board in Docket No. 5270-CUC-2, Order of 2/26/93. The 1994 IRP filing showed that all programs but the Residential New Construction Program were cost effective and indicated the Company intended to continue to build on the infrastructure and program development it had undertaken since 1992. Welch pf. 8/23/96 at 3.

624. Citizens unilaterally decided to curtail its DSM program implementation activity in the fall of 1994 pending a program redesign and rescreening, claiming that it had new information regarding its avoided costs. This action created unquantifiable but substantial damage to the momentum and effectiveness of its DSM programs. Welch pf. 8/23/96 at 7-8; tr. 11/5/96 vol. II at 118-119 (Shepherd).

625. Citizens' DSM implementation staff was substantially involved in the redesign and rescreening effort. Welch pf. reb. 12/11/96 at 10-11.

626. Citizens entered into a lengthy rescreening process in the fall of 1994, culminating in the controversial filing of June 15, 1995, in which Citizens proposed a new planning criterion (a ten-year payback, or less, for all measures) which it knew was in direct conflict with the Board's mandate in Docket No. 5270. Welch pf. 8/23/96 at 4; Shepherd pf. reb. 9/23/96 at 23; tr. 11/5/96 vol. II at 140-142 (Shepherd).

627. A partial stipulation between Citizens and the DPS that set out agreements regarding Citizens' DSM program implementation for 1996 and 1997 was filed in Docket No. 5270-CUC-3 on October 18, 1995. Welch pf. 8/23/96 at 4-5; exh. CUC-MAS-6g.

628. The 10/18/95 partial stipulation in Docket No. 5270-CUC-3 provided for measure and program rescreening, using the agreed-upon avoided costs, for a specified portfolio of programs the Company agreed to implement starting in 1996. Welch pf. 8/23/96 at 5; exh. CUC-MAS-6g.

629. In the DPS's May 24, 1996, letter notifying the Board that it would not support pre-approval for programs described in Citizens' April 30, 1996, compliance filing in Docket No. 5270-CUC-3 (containing its revised DSM program screenings), the Department cited four problems with the filing: (1) inappropriate or incorrect inputs to Citizens's screening tool; (2) the resulting inability of the DPS to support Citizens' assertions of the cost effectiveness or non-cost effectiveness of various programs; (3) Citizens' failure to consider options that might make some programs cost effective; and (4) the absence of program budgets, estimated savings, or a comprehensible action plan in the filing. Exh. CUC-MAS-6h.

630. Citizens has not only failed to plan and analyze based on least-cost principles, but has in fact actively retreated from its unambiguous obligation to design, implement, and continuously improve a comprehensive portfolio of DSM programs. Steinhurst pf. 8/23/96 at 4.

c. Flaws in IRP Screening

631. Citizens maintains that the cost data included in the program redesign screening were not derived from Citizens's cost accounting system, but were estimated by Mary Ann

Shepherd based on her experience as a DSM manager. Shepherd pf. reb. 9/23/96 at 26; tr. 12/20/96 at 129 (Shepherd).

632. Citizens' assertion is not consistent with information obtained (formally and informally) from the Company by the DPS. Moreover, it is reasonable and appropriate to use historical expenditures as a basis for estimating costs for program rescreening. Costs used in program screening must be clearly demonstrated to be incremental costs related to DSM. Citizens has not sufficiently documented these costs; therefore it has not demonstrated that these costs should be included in program screening. Welch pf. reb. 12/11/96 at 6-8; tr. 11/5/96 vol. I at 77-78 (Welch).

633. Sunk costs are not appropriate costs for inclusion in program rescreening. Lloyd pf. 8/23/96 at 14; tr. 11/5/96 vol. I at 78-80 (Welch).

634. Information contained in the Company's unofficial reports of DSM expenditures suggests that sunk costs, including IRP planning and legal costs, were included in program rescreening. However, because the Company repeatedly asserted that these expenditures were not the official record of DSM costs and the DPS could not rely on them, the DPS was not able to identify specific examples of sunk costs that Citizens included in the rescreening. Welch pf. reb. 12/11/96 at 7-8; tr. 11/5/96 vol. I at 79-81 (Welch).

635. The "general allocation" and "CUC support staff" amounts used in the April 30, 1996, program redesign filing totals $150,000. Welch pf. reb. 12/11/96 at 8.

636. An analysis of the "general allocation" and "CUC support staff" amounts used in the April 30, 1996, program redesign shows that the amount used for these two categories increases program delivery costs for all programs by over 50 percent, thereby significantly increasing the societal costs of the DSM resource acquisition. Welch pf. reb. 12/11/96 at 8; exh. DPS-CEW-11; tr. 12/20/96 at 89-90 (Welch).

637. When Citizens originally submitted its screening of the residential renovation program to the Department for its initial review in February of 1996, Citizens' assumptions about participation and installation rates were consistent with the 1995 performance, and the program would have been cost-effective at this level of activity if Citizens had correctly carried out its screening analysis. Parlin pf. 8/23/96 at 44-45.

638. When Citizens submitted the final screening of the residential renovation program on April 30, 1996, the program did not screen as cost-effective because the activity level had been reduced dramatically. Parlin pf. 8/23/96 at 45.

639. Citizens' impact and process evaluation for its Residential Retrofit Program indicated that the realization rate for DHW conservation measures was 52 percent. Parlin pf. 8/23/96 at 26. It also recommended that Citizens correct its engineering algorithms. For the purposes of the DSM annual report, ACE and prospective program screening, Citizens corrected the engineering algorithms and then reduced potential energy and demand savings by 52 percent. Shepherd pf. reb. 12/11/96 at 8-9; Parlin pf. 8/23/96 at 27.

640. Citizens apparently applied the 52 percent realization rate without any consideration of changes to program procedures or other factors which could improve this rate. Parlin pf. 8/23/96 at 27; tr. 11/4/96 at 113-115 (Parlin).

641. Applying a low realization rate to program screening will make the program screen poorly and may render the program non-cost effective. Tr. 11/4/96 at 115 (Parlin).

d. Tracking System Flaws

642. Citizens has used a variety of methods to capture data since 1991. These systems have grown and been refined over the years as program activity has required more sophisticated systems. Shepherd pf. 9/23/96 at 29-31.

643. A tracking system needs to be flexible to accommodate different kinds of data and should enable a utility to effectively manage its DSM programs and meet regulatory reporting requirements. Tr. 11/4/96 at 75-77, 79-82 (Parlin).

644. Citizens' method of entering information into multiple tools and then transferring information to a central system is cumbersome, time-consuming, and consequently expensive. It has created overlapping and redundant data and has increased the associated costs of maintaining the system. Tr. 11/5/96 vol. II at 42-45 (Shepherd); tr. 11/4/96 at 128-129 (Parlin); tr. 12/19/96 at 226-230 (Parlin); tr. 12/20/96 at 143-144 (Shepherd); Parlin pf. reb. 12/11/96 at 5.

645. Citizens' DSM tracking system is duplicative, inefficient, and inadequate for the purposes of program management. Parlin pf. reb. 12/11/96 at 4-5; Parlin pf. 8/23/96 at 6, 30.

646. Citizens responded to the Department's criticism by asserting that developing a comprehensive tracking system for DSM would be very costly without producing significant benefits. Shepherd pf. 9/23/96 at 30-31.

647. Developing a comprehensive system at the beginning of program implementation would likely have been much less expensive in the long term. Parlin pf. reb. 12/11/96 at 5.

648. GMP, CVPS, and Washington Electric Cooperative ("WEC") successfully developed comprehensive tracking systems early in the process of program implementation. Parlin pf. reb. 12/11/96 at 5.

649. Citizens failed to track adequate information for evaluation and resource characterization of fuel switching and custom efficiency measures. Parlin pf. reb. 12/11/96 at 6-8; Shepherd pf. reb. 9/23/96 at 83.

650. Citizens indicated that its tracking system did not contain the audit date or date of first contact for two audit-driven programs, the Farm Energy Efficiency Program and the Farm New Construction Program. Exh. CUC-MAS-7; tr. 11/5/96 vol. II at 51-52 (Shepherd).

651. Citizens does not track adequate information to be able to review the performance of individual auditors. Parlin pf. 8/23/96 at 31.

652. Citizens provided the Department with the algorithms used to calculate the savings from domestic hot water ("DHW") conservation devices. In a significant number of cases, the savings associated with specific sites did not correspond to the correct use of the algorithms. Parlin pf. 8/23/96 at 7.

653. Citizens explained that the discrepancy in the calculation of DHW savings occurred when the laptop computer used by a specific field auditor was not updated with the correct algorithms. Shepherd pf. reb. 9/23/96 at 80-81.

Discussion re DSM Planning and Screening

Citizens' record of accomplishments for its DSM programs is sorely deficient. Citizens fell short of its DSM projected annualized MWh savings goals in 1994, 1995, and 1996 by 59 percent, 54 percent and 35 percent, respectively. In 1995, Citizens only spent 60 percent of its projected utility costs and in 1996 it underspent its DSM budget by 34 percent. The failure to spend the budgeted amounts on its DSM programs would not be serious in and of itself, if the Company had managed to achieve its DSM savings goals. However, the record demonstrates that even as savings targets were not being met, Citizens chose to dramatically reduce its DSM implementation activities. Subsequently, Citizens spent two years redesigning its programs without having a reliable tracking system to evaluate its prior performance, failed to conduct program monitoring and evaluation activities, and utilized improper screening methodologies.

We conclude that Citizens' management has failed to meet its statutory and regulatory obligations to provide cost-effective energy efficiency services to its customers through its failure: (a) to track DSM program activities; (b) to revise programs as necessary in a timely manner; (c) to correctly screen programs for cost-effectiveness; (d) to provide leadership and direction to its efforts; and (e) to devote sufficient financial resources to DSM program activities.

2. Specific DSM Implementation Issues

a. Residential Retrofit Program

654. The fuel switching component of the RRP program was substandard. Parlin pf. 8/23/96 at 8.

655. In Docket No. 5270, the Board directed utilities to provide comprehensive audits and to identify all cost-effective DSM opportunities at the time of the audit. Docket No. 5270, Order of 4/16/90, Vol. III at 46-48.

656. Citizens failed to provide comprehensive audits to participants in this program. Parlin pf. 8/23/96 at 11-14.

657. Citizens failed to take steps to acquire DSM resources by analyzing and offering incentives for cost-effective non-standard measures. In fact, a DPS review of participants' files and the tracking system indicated that Citizens did not pay incentives for, or track the

installation of, *any* non-standard measures. Tr. 11/4/96 at 111 to 112 (Parlin); Parlin pf. 8/23/96 at 11; Parlin pf. reb. 12/11/96 at 11.

658. Citizens failed to provide adequate assistance to its low-income participants in overcoming market barriers to fuel switching. Parlin pf. 8/23/96 at 20-21; Parlin pf. reb. 12/11/96 at 13-15.

b. Residential New Construction

659. Citizens' 1994 IRP (filed in July of 1994) indicated that the residential new construction program as implemented was not cost-effective. Parlin pf. 8/23/96 at 43.

660. Citizens' filing of June 15, 1995, did not include a screening of the assessment fee new construction program. Citizens claimed it completed such a screening, but did not incorporate it into the filing. Parlin pf. 8/23/96 at 43; Shepherd pf. reb. 9/23/96 at 5-6.

661. Citizens did include a screening of the assessment fee new construction program in its April 30, 1996, filing. This screening was seriously flawed. Parlin pf. 8/23/96 at 43.

662. Citizens knew that its program was not cost effective and failed to make appropriate modifications, although the DPS recommended a viable, working program model. Parlin pf. 8/23/96 at 44.

663. Citizens failed to meet its obligation under Docket No. 5270 to redesign this program when it became clear that the program was not achieving a significant penetration in the market and was not cost effective. Parlin pf. 8/23/96 at 42.

664. Citizens served twenty-four participants through the new construction component of its RNC program during 1995. Parlin pf. 8/23/96 at 41.

665. Citizens' residential accounts increased by approximately 150 during 1995. Citizens stated that sixteen new accounts were added due to building conversions. The Department's estimate of new housing starts in Citizens' territory was based on WEC's experience. WEC has been closely tracking its residential new housing starts through its assessment fee new construction program, and has found that 70 to 80 percent of new residential accounts are homes appropriate for participation in its new construction program. Parlin pf. 8/23/96 at 41; Shepherd pf. reb. 9/23/96 at 94; Parlin pf. 8/23/96 at 41; tr. 11/4/96 at 120 (Parlin).

666. On this basis, the Department estimated that approximately 100 new homes started during 1995 were appropriate for Citizens' new construction program. Exh. DPS-KEP-7COR.

c. Mail Order Lighting

667. In the Mail Order Lighting Program, Citizens offered items in its catalog which were not designed to save electricity, such as photoelectric night lights and tank wraps for oil and propane water heaters. In addition, Citizens' tracking system did not distinguish between customers with electric end-uses and those with non-electric end-uses who purchased caulking, weatherstripping, showerheads, aerators, and pipe insulation. Citizens may have included all costs associated with the program as DSM expenses in its cost of service and claimed ACE for measures which could not reasonably be expected to save electricity. Parlin pf. 8/23/96 at 35, 47-48.

d. Large Commercial & Industrial

668. In the Large Commercial Retrofit Program, Citizens analyzed and paid an incentive for the installation of Electric Thermal Storage (ETS) controls at a multi-family complex, but did not analyze competing fuel switching options for space heating. This complex provides housing for low-income, elderly people. Parlin pf. reb. 12/11/96 at 11-13.

669. Citizens informed the Department that the fuel switching analysis was not conducted because the participant was not interested in switching the electric space heat. However, the customer file and Citizens' own witness in this docket indicate that the customer was interested in a fuel switch analysis. Parlin pf. reb. at 13; tr. 11/5/96 vol. II at 93-94 (Shepherd); tr. 11/4/97 at 239-240 (Lloyd).

670. Citizens submitted a billing analysis for this customer. This analysis failed to demonstrate that the projected demand savings used for ACE purposes have been realized. Exh. CUC-MAS-23; exh. CUC-Redirect-10; tr. 12/20/96 at 200-201 (Shepherd).

Discussion re Specific DSM Implementation Issues

Citizens has failed to provide comprehensive audits that identify fuel-switching and custom measures through its Residential Retrofit Program. The lack of incentives for fuel-switching measures has made it particularly difficult for low-income customers to implement such measures. Citizens' Residential New Construction Program has not captured targeted cost-effective energy efficiency measures. Citizens failed, over a two-year period, to adopt an alternative program design to address this problem. Citizens' Mail Order Lighting Program did not properly separate DSM from non-DSM products. Citizens failed to evaluate alternatives to storage heat for a specific customer in the Large Commercial and Industrial Program. That customer may have installed a non-optimal measure.

3. Fuel Switching in General

671. In Docket No. 5270, the Board ordered utilities to promote fuel switching where cost effective and provide services for fuel switching which were the equivalent of services provided for efficiency measures. Docket No. 5270, Order of 4/16/90, Vol. III at 62-63.

672. In Docket No. 5270, the Board identified the low-income market as requiring special treatment. *Id*. at 48, 57, 60-62.

673. In the collaborative filing of July, 1991, which contained Citizens' DSM program designs, Citizens stated it would not offer direct financial incentives for fuel switching, but would offer services equivalent to those offered for efficiency measures in all other respects, including preparing specifications, reviewing bids, supervising installation and inspecting the work after completion. The cover letter to its collaborative filing contains a detailed discussion of the appropriate monitoring and evaluation ("M&E") activities for fuel switching. In this letter, Citizens agreed to determine whether its approach was effective in overcoming the market barriers to fuel switching and to carefully monitor this component of the program and revise program implementation as necessary. Citizens also stated that it would provide detailed progress reports on a periodic basis. Parlin pf. 8/23/96 at 10-11.

674. In Docket No. 5270-CUC-2, the Board specifically ordered Citizens to provide contract management and financing services for fuel switching. Lloyd pf. reb. 12/11/96 at 6; Docket No. 5270-CUC-2, Order of 2/26/93 at 116-117.

675. The Board ordered Citizens to monitor the impact of the fuel switching waiver on measure installation. The fuel switching waiver required participants to agree not to switch fuels within five years of receiving incentives for efficiency measures. Parlin pf. 8/23/96 at 9; Docket No. 5270-CUC-2, Order of 2/26/93 at 66.

676. In February of 1995, Citizens submitted a combined process and impact evaluation for the Residential Retrofit Program, but this study failed to illuminate existing market barriers to fuel switching and the steps the utility might take to overcome them. Although the evaluation indicated that high installation costs were discouraging some participants from switching fuels, Citizens did not attempt to ascertain what level of financial assistance would effectively motivate participants to switch fuels. Parlin pf. 8/23/96 at 24.

677. The process and impact evaluation completed for the Residential Retrofit Program did not include an investigation into the impact of the fuel switching waiver on the installation of efficiency measures. Parlin pf. 8/23/96 at 27.

678. Citizens was unable to inform the Board as to whether its monitoring and evaluation efforts had identified financing as a barrier to fuel switching. Tr. 11/5/96 vol. II at 107-109 (Shepherd).

a. Fuel Switching in Residential Retrofit Program

679. For fuel switching measures, the participants' files in the Residential Retrofit Program contained no evidence that Citizens had assisted with writing specifications for contractors. A very limited number of files had indications that Citizens had provided some assistance with reviewing contractors' bids. Parlin pf. 8/23/96 at 16.

680. In May of 1996, an employee of Citizens' subcontractor, Phoenix Engineering, informed Citizens’ residential program manager that it would be difficult to achieve fuel switching installation in the low-income market without offering incentives. Parlin pf. reb. 12/11/96 at 14-15; exh. DPS-KEP-11.

681. Citizens regularly performed analyses based on site-specific information for custom efficiency measures. Parlin pf. 8/23/96 at 19.

682. Citizens failed to conduct preliminary analyses of fuel switching potential based on site-specific information. Parlin pf. 8/23/96 at 16-17; Shepherd pf. reb. 9/23/96 at 73.

683. In some cases, Citizens' fuel switching services may have consisted of a phone call; fuel switches may have been claimed for customers who never received a site visit. Shepherd pf. reb. 9/23/96 at 73; tr. 11/5/96 vol. II at 149-152 (Shepherd).

684. In the Residential Retrofit Program, Citizens claimed two large multi-family projects as fuel switches in its 1995 DSM annual report, for a total of 35 units of space heat fuel switching and 59 units of water heat fuel switching. Thirty-five (35) units of space and water heat fuel switches were claimed for ACE in this Docket. Twenty-four units of water heat fuel switching were apparently verified after the termination of the ACE period in this Docket. Parlin pf. 8/23/96 at 36-37.

685. The two individuals identified by Citizens as the contacts for these projects indicated that Citizens had not provided an analysis of fuel switching options prior to the fuel switch. One of these customers stated that a Citizens employee had not been to the site prior to the installation. The other clearly stated that he converted the electric hot water to propane because the tank failed and that Citizens had not in any way affected his decision to switch fuels. Citizens had no explanation for the first customer's statement, and responded that the other customer intentionally misled the Department. Parlin pf. 8/23/96 at 36; Parlin pf. reb. 12/11/96 at 15-16; exh. CUC-Cross-29; tr. 11/5/96 vol. II at 121-122 (Shepherd).

686. Citizens did not present any evidence to demonstrate that it provided these participants with a site-specific, preliminary analysis of fuel switching potential. Citizens stated it understood the Department's concerns regarding the one site because it was unable to locate the customer's file. Tr. 11/5/96 vol. II at 122-123 (Shepherd).

b. Fuel Switching at Jay Peak

687. Citizens did not provide comprehensive DSM services to the condominium owners at Jay Peak. Parlin pf. 8/23/96 at 14.

688. Although initial audits were conducted in 1993, Citizens did not install basic water conservation devices until 1995. Parlin pf. 8/23/96 at 13.

689. Citizens did not provide an initial fuel switching analysis based on site-specific factors to condominium owners. Citizens' generic analysis was flawed and resulted in a

significant and consistent understatement of the potential benefits of fuel switching. Parlin pf. 8/23/96 at 14; tr. 11/5/96 vol. II at 120 (Shepherd).

690. Citizens sent form letters to condominium owners who requested additional information about fuel switching. This form letter gave generic savings and concluded that partial fuel switching was not cost-effective. Parlin pf. 8/23/96 at 13; exh. DPS-KEP-8 at 15-21.

691. Review of participant files and Citizens' tracking system by a DPS witness indicated that the participants claimed as fuel switches did not receive individualized services from Citizens. Parlin pf. reb. 12/11/96 at 9-10; tr. 12/19/96 at 238-239 (Parlin).

692. Citizens identified the space heat fuel switches claimed in its annual report and for ACE in this Docket through an analysis of billing history. Parlin pf. reb. 12/11/96 at 10; exh. DPS-KEP-8 at 23.

c. Fuel Switching in Small C&I Program

693. In the Small C&I Retrofit Program, a number of participants received only general information about fuel switching. A fuel switching analysis based on site-specific factors was not presented to these participants. Lloyd pf. reb. 12/11/96 at 6-7.

694. In this program, cost-effective fuel switching opportunities were regularly omitted from the summary of measures presented to participants. *Id*.

695. Citizens did not provide any evidence that participants in the SC&IR program received technical assistance, contract management or financial assistance for cost-effective fuel switching measures. *Id* at 6.

696. Citizens failed to provide adequate fuel switching services to participants in the Small Commercial Retrofit Program. *Id* at 7.

d. Fuel Switching Savings

697. Citizens believes that it should be able to claim credit for fuel switches which it has “legitimately influenced.” Tr. 11/5/96 vol. II at 131 (Shepherd).

698. Citizens was unable to verify DSM savings for customers who received loans through the bank for fuel switching because the bank refused to share the list of customers receiving loans. Shepherd pf. reb. 9/23/96 at 77; tr. 11/5/96 vol. II at 135-136 (Shepherd).

699. If Citizens had been providing appropriate follow-up services for fuel switching, it would have been able to identify Residential Retrofit Program participants who used the financing program. Parlin pf. 8/23/96 at 18-19.

700. Citizens has found that the lack of incentives for fuel switching has made it difficult to identify participants who fuel switched and convince them to accept post installation inspections. Tr. 11/5/96 vol. II at 126, 154-155 (Shepherd).

701. Citizens' strategy of claiming market-driven fuel switches affects the ratepayers in three ways: they pay for the costs of operating a program which did not deliver real services; they are asked to reimburse the Company for lost revenues (ACE) which were not a result of the company's DSM programs; and they are asked to shoulder the capital costs of refurbishing peaking units when those costs might have been wholly or partially avoided through effective DSM implementation. Steinhurst pf. 8/23/96 at 8.

Discussion re Fuel Switching Issues

At the time that Citizens' first DSM program designs were approved by the Board, fuel switching measures were subject to special scrutiny. Citizens' programs were approved (without incentives for fuel switching) with an agreement that Citizens would provide comparative analyses for all customers, closely monitor the issue of financial barriers to participation, make program changes as necessary, and report the results of its efforts to the Board. The record in this proceeding demonstrates that Citizens failed to meet those obligations regarding fuel switching.

Citizens has consistently failed to provide site specific fuel switch analyses for customers. The failure to offer incentives for fuel-switching affected measure installation for low-income customers. Citizens failed to appropriately monitor the fuel-switch measures it offered.

Of even greater concern is the likelihood that Citizens claimed savings for fuel switches that it did not achieve through its programs. Although precise documentation of the extent to

which Citizens claimed inappropriate savings was not established in the current proceedings, we are extremely troubled by the facts that were established. This demonstrates a serious failure of Citizens' overall implementation and management of some key DSM programs.

4. Other Flaws

702. Citizens failed to provide its program implementors with effective management tools. The tracking system did not provide program managers with the information needed for effective day-to-day management of the DSM programs. Parlin pf. 8/23/96 at 4-6, 29-30.

703. In a memorandum of August 1996, regarding Citizens' DSM activities, a Citizens employee describes long-term problems with lack of information and clear direction, confusion in the chain of command, lack of tools, and poor communication. This employee specifically stated that this situation "has hurt the programs, damaged employee morale, negatively impacted customer satisfaction. . . ." Exh. DPS-Cross-80 at 3.

704. In October of 1996, Mr. Pyeatt, Manager of Energy Services at VED, recommended in an internal memorandum that Citizens dramatically reduce its 1997 DSM goals. Exh. DPS-Cross-86.

705. In another memorandum in the same month, Ms. Shepherd expressed concern over VED's poor program performance as of September 30, 1996, and confusion over VED's position that the goals were too high, given that 1996 and 1997 goals were generally lower than 1995 actual performance. Exh. DPS-Cross-75 at 1-3.

706. A 1995 year-end summary of amounts charged to DSM shows a year-end journal entry for 1995 accruals of nearly $341,000. Welch pf. 8/23/96 at 14.

707. A portion of these costs were associated with a Large C&I Project which was not completed until 1996. Welch pf. 8/23/96 at 14.

708. Ms. Shepherd made the following statements in an internal memo of October 1996: “We need to develop a plan that shows a commitment to DSM that will spend the additional half-million dollars and will show a good attempt to reach the goals. Approximately 50 percent of the budget has been spent. It is not clear to me how we can spend in 3 months what was spent in the first 9 months. *Very clearly, the games that have*

been played with an accrual account at the end of the past two years can not continue this year." DPS-Cross-85 at 3-4 (emphasis added).

709. Mr. Lass bears the ultimate responsibility for the proper implementation of least-cost planning by VED. Mr. Lass was unaware that Citizens had never submitted an IRP which received Board approval. Tr. 2/6/97 at 23, 49, and 64 (Lass).

Discussion re Other Flaws

The above findings demonstrate an overall level of poor management of Citizens' DSM programs. We include these findings largely because they provide a context to many of the contested issues in this Docket. Mr. Lass, who now has the overall responsibility for least-cost planning, is not even aware that Citizens does not have an approved IRP. Ms. Shepherd, who had significant management responsibility for implementation of DSM programs, is concerned about games being played with the accrual account and unclear messages regarding performance targets. The general impression created is that no one in the Company is available to provide necessary direction and establish appropriate goals.

5. Conclusions With Respect to DSM

710. Citizens' accounting practices and recordkeeping for DSM planning and implementation are so confused as to make impossible an accurate determination of what it has spent for DSM or the validity of their claims for ACE recovery. Steinhurst pf. 8/27/96 at 4.

711. Citizens' DSM tracking system is duplicative, inefficient, and inadequate for the purposes of program management. Parlin pf. reb. 12/11/96 at 4-5; Parlin pf. 8/23/96 at 6, 0.

712. Citizens' failure to account for its DSM program costs raises serious questions about the validity of the program screenings filed in 1995 and 1996. Welch pf. reb. 12/11/96 at 6-8; tr. 11/5/96 vol. I at 77-81 (Welch).

713. Citizens failed to re-design its Residential New Construction Program to provide cost-effective services to its customers despite two years of review and specific suggestions and models from the DPS. Findings 659, 661, 663.

714. Citizens' implementation of the Residential Retrofit Program was imprudent. Citizens failed to provide comprehensive services for high use customers including those with

fuel switching potential, failed to conduct meaningful monitoring and evaluation, and failed to provide relief to low-income participants. Findings 655-658, 676, 680.

715. Citizens' programs with fuel switch components have been poorly designed and managed. Many of Citizens' customers with electric water heat or electric space heat have not received site-specific cost-effectiveness evaluations. Findings 679, 682, 689, 693, 695.

716. Citizens has committed to spend 3.5 percent of VED revenues in 1997 and thereafter on the VED's DSM programs. Love pf. 1/24/97 at 11.

717. Citizens' Vice President stated that the Company should be required to do more than any other Vermont utility for DSM. It is Citizens' understanding that other Vermont utilities have committed 3.0 percent of their revenues for the acquisition of cost-effective DSM resources. Tr. 2/6/97 at 124 (Love).

Discussion re Conclusions

The evidence in these Dockets demonstrates that Citizens has failed to meet the requirements of 30 V.S.A. § 218c and our Orders in Docket 5270 for the subset of its DSM programs described in the above findings. Among the shortcomings noted are the following: the programs have not been prudently designed and administered; the programs have failed to meet the savings kWh targets and objectives set out by the Company itself; reasonable incentives to overcome market barriers were not provided, and there have been no serious attempts to deliver fuel-switching services. In addition, with respect to the overall mismanagement of the Company's DSM programs, the impact of such failure is that Citizens' ratepayers are paying more in power costs than they would have had the Company fulfilled its responsibility under the law to capture all cost-effective energy savings. This is not consistent with prudent utility practice and violates both the letter and the spirit of Vermont law. In Part Two, Subpart III below, we consider the appropriate remedies for these failures.

K. Accounting Issues

1. Misuse of Accounts

a. I.O. #2861; I.O. #2859

718. I.O. #2861[238] was for substation work on the 120 kV line. Tr. 12/2/96 at 142 (Petit); exh. DPS-Cross-55.

719. I.O. #2859 was for line work on the 120 kV line. *Id*.

720. I.O. #2861 would have been closed at the end of 1993. I.O. #2859 would have been closed at the end of 1992. Tr. 12/2/96 at 145 (Petit).

721. When an I.O. is closed, the plant item reflected in that I.O. can then be closed to the plant account, which puts it into rate base. Tr. 12/2/96 at 146 (Petit).

722. In November 1992, Citizens transferred $405,950 for a Magnetec invoice plus $29,706 in A&G costs plus $3,508 in AFUDC costs from I.O. #2861 to I.O. #2859. Exh. DPS-Cross-55.

723. In November 1992, Citizens transferred $342,352 for a Siemens invoice plus $25,052 in A&G costs plus $3,019 in AFUDC costs from I.O. #2861 to I.O. #2859. Exh. DPS-Cross-55.

724. Citizens testified that the transfers were made when construction costs for the Newport substation escalated while the actual costs of the line portion of the transmission project were less than the expected amount reflected in the I.O. Upon this basis, Citizens decided to transfer some of the costs from I.O. #2861 to I.O.# 2859. Tr. 2/4/97 at 103-4 (Guyette); tr. 12/2/96 at 145 (Petit).

725. Moving dollars from one I.O. to another would not affect budgeted dollars, but actual dollars. Tr. 1/8/97 at 18 (Avery).

726. One reason to move expended dollars from one I.O. to another would be to keep the I.O. for a project within budget. *Id*.

727. Transferring the amounts from I.O. #2861 to #2859 caused them to be booked to plant-in-service in 1992. Tr. 12/2/96 at 146 (Petit).

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238. In utility accounting practice, new work projects are booked to improvement orders (I.O.s) when construction commences. Work projecs that involve the replacement of existing facilities are referred to as replacement orders (R.O.s).

728. Citizens Witness Thomas Petit agreed that if 1992 was used as a test year for VED, rate base would be increased as a result of the transfers; Mr. Petit testified that the two transfers had the effect of increasing VED's rate base in the 1992 test year in excess of $700,000. Tr. 12/2/96 at 147 (Petit).

729. Citizens states that these transfers between I.O.s did not result in transfers between FERC accounts. Tr. 12/2/96 at 270-271 (Petit).

730. Citizens' historical practice of transferring costs between I.O.s or R.O.s is not an acceptable procedure. Exh. CUC-RLOB-7 at 6.

731. Citizens, through its witnesses, states that the practice of transferring costs from one I.O. or R.O. to another was common and was at the discretion of operating personnel. Exh. CUC-RLOB-7 at 6.

732. Citizens' records for I.O. #2861 and #2859 when compared to Citizens' monthly work in progress ("MWIP") reports for the same periods are not consistent with the transfers. Furthermore, credits and debits shown in I.O. #2861 and R.O. #2859 show, as examples, the following discrepancies:

- R.O. #2859 shows an estimate for 2,950 insulators at a cost of $445,850 or $151 each while the 12/30/92 MWIP report for #2859 shows purchases of 3,481 insulators at a cost of $413,945 or $118.91 each.
- R.O. #2859 lists an estimated cost of $89,019 for nine above-115 kV line switches, or $9,891 per switch while the 11/30/92 MWIP report for #2859 shows purchases of four switches at a cost of $15,927 or $3,981 each.

Exh. DPS-SL-1 at Tabs 19, 24.

Discussion re I.O. #2861 and I.O. #2859

The DPS argues that these transfers overstated the amount of construction closed to plant-in-service in 1992 and that this, coupled with other accounting practices, *materially misrepresented* to FERC the total VED closings to plant in service for 1992.[239] The DPS argues that Citizens failed to attach an explanation for these transfers.[240] The Department speculates that this transfer may have occurred because 1992 was a test year for ratemaking

239. DPS Brief 4/7/97 at 100.
240. DPS Brief 4/7/97 at 97.

purposes.[241] Mr. Petit was the person at VED in charge of accounts during 1992. He provided extensive testimony on the transfers from I.O. #2861 to I.O. #2859 that occurred in November of 1992. In particular, Mr. Petit testified as to the reason for these transfers and the effects they would have, i.e., increasing rate base during 1992. In its reply brief, Citizens submits that the testimony of Mr. Petit that if 1992 were a test year these transfers would have the result of increasing rate base, is simply incorrect notwithstanding the fact that Mr. Petit did so testify. Citizens then goes on to argue that Mr. Petit is not a regulatory expert and was not correct on this point.[242] In later testimony, a Citizens' witness disagreed that these transfers may have occurred because 1992 was a test year for ratemaking purposes.[243]

Citizens claims in its reply brief that, although plant-in-service increased in 1992 as a result of these transfers, rate base "did not increase because the full transferred amount . . . would have appeared in rate base as part of CWIP in any event." Citizens fails to cite the basis for this claim. As support for its rate impact argument on this issue, Citizens directs us to its response to the Laskow report. The Company's response to the Laskow report states that there was no impact on VED customers as a result of the transfer of some of these costs. However, the evidence does not support a conclusion that such was the case. The evidence that the Company has provided in response to its position that these transfers have had no impacts on Vermont ratepayers is not adequate. The Company's testimony on this issue is conflicting, and the Company's final position as stated in its reply brief is unsupported.[244]

More to the point, however, is the Company's admission that, while the practice of transferring costs from one I.O. or R.O. to another was common, it is not an acceptable procedure. While Citizens has stated that it will no longer indiscriminately transfer costs between I.O.s, it is clear from the evidence in this record, and by the Company's own admission, that Citizens has been remiss in allowing this unacceptable procedure to continue

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241. Exh. DPS-SL-1 at 112-113.
242. Citizens' Reply Brief 4/18/97 at 82.
243. O'Brien pf. 3/5//97 at 16.
244. Exh. CUC-RLOB-7 at Attachment A at 12-14; Citizens Reply Brief 4/18/97 at 82-83.

over some period of time. We find that the Company's policy, oversight, and implementation of this accounting function is deficient.[245]

The DPS also raises concerns about the overestimation of total costs in R.O. #2859 as well as the extent and size of the differences between estimated unit costs and actual unit costs. There is evidence of discrepancies between estimated costs reflected in I.O. #2859 and Citizens' MWIP accounts. Citizens does not disagree with this finding. We note these discrepancies and find them cause for additional concern.[246]

b. 1991 Plant-in-Service Amounts Incorrectly Closed to 1992 Plant-in-Service

733. Citizens charged DSM expenses to I.O. #2829 in 1991 and 1992, in the total amount of $552,685. Exh. DPS-SL-1 at 35.

734. Citizens' report to FERC included, as closed to plant-in-service in 1992, 1991 DSM costs in I.O. #2829 totaling $552,685. Exh. DPS-SL-1 at Tab 20.

735. Costs associated with DSM should not have been closed to plant-in-service in 1992. Exh. DPS-SL-1 at 37.

736. Citizens recorded costs totaling $164,231 in 1991, and an additional $8,999 in January 1992, relating to R.O. #2792. Exh. DPS-SL-1 at Tab 83.

737. Citizens acknowledged, in the explanation to a 1/31/92 journal entry, that the costs of $8,999 represented 1991 construction activity. Exh. DPS-SL-1 at 39.

738. Citizens' MWIP reports for R.O. #2792 reflect the fact that no further activity occurred with respect to R.O. #2792 until July 1992, when instructions were given to transfer $14,500 from R.O. #2792 to R.O. #2735, with the explanation "To transfer amount to proper account." Exh. DPS-SL-1 at Tab 89.

739. R.O. #2792 was credited in July 1992 with $15,559 which included a charge of $1,059 for administration & general expense ("A&G"). Exh. DPS-SL-1 at Tab 85.

740. Citizens stated that R.O. #2792 was not closed in 1991 because further construction activity was anticipated in 1992. Exh. DPS-SL-1 at 40.

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245. Exh. CUC-RLOB-7 at 6; Citizens Brief 4/7/97 at 29.
246. DPS Brief 4/9/97 at 98-99; Citizens Reply Brief 4/18/97, Attachment A at 3.

741. Citizens closed R.O. #2792 to plant-in-service in 1992. Exh. DPS-SL-1 at Tab 20.

742. Citizens' 1/31/92 MWIP report for R.O. #2784 contained one charge of $12,555 listed without further identification as "Accounts Payable ("A/P") Other," plus A&G expenses of $886 charged on the two debits. Exh. DPS-SL-1 at Tab 90.

743. The unidentified charge of $12,555 resulted from a January 1992 journal entry which stated that the charge related to 1991 construction activity. Exh. DPS-SL-1 at Tab 84.

744. Citizens' 2/29/92 MWIP report for R.O. #2784 contains a charge listed as "A/P Other" for an invoice from Stetson-Harza in the amount of $43,629 plus A&G expenses of $2,966, a total of $46,595. The charge was for services from 11/17/91 to 12/28/91. Exh. DPS-SL-1 at 41, Tabs 92, 93.

745. Citizens' 1/31/92 and 2/29/92 MWIP reports for R.O. #2784 list its status as "Closed." Exh. DPS-SL-1 at Tab 93.

746. Citizens' 1/31/92 MWIP report for R.O. #2827 states that $1,063,750 had been closed to plant-in-service in 1991. Exh. DPS-SL-1 at Tab 101.

747. Citizens closed $2,630 in costs relating to R.O. #2827 to plant-in-service in 1992. Exh. DPS-SL-1 at Tab 20.

748. During 1991, Millgard Corporation installed some equipment for Citizens and was fined by the State of Vermont for pumping fluids into a lake. Exh. DPS-SL-1 at 46-47.

749. Citizens withheld $35,000 from its payments to Millgard, as a result of Millgard's dispute with the State, which was ultimately resolved by payments of $17,500 to the State of Vermont, $1,400 to its attorney, and the balance of $16,100 to Millgard. In June 1992, Citizens paid to Millgard the 10% retainage of $18,275. Exh. DPS-SL-1 at 47.

750. Citizens charged all of the $53,275 in payments to R.O. #2859 in 1992. Exh. DPS-SL-1 at 48.

751. The payments totaling $53,275 were 1991 charges which, on a final accounting, had been recorded in 1992. Exh. DPS-SL-1 at 49.

752. During the period June-November 1991, Citizens used a portion of the Highgate Converter that was owned by four other utilities. Ultimately, Citizens was required to pay $232,764 for that use. DPS-SL-1 at 3.

753. Citizens' 10/31/92 MWIP report for R.O. #2859 reflects the charge of $50,777 entered without explanation as "A/P Other," for the remaining amount due by Citizens for its 1991 use of the Highgate Converter. DPS-SL-1 at Tab 18.

754. Citizens confirmed, in a 10/16/92 memo, that it was recording in 1992 $181,987 of the $232,764 costs that were already booked in 1991. DPS-SL-1 at Tab 21.

Discussion re: 1991 Plant-in-Service Amounts Incorrectly Closed to 1992 Plant-in-Service

Citizens agrees in general that all invoices for services or purchases in a given year should be recorded in that year.[247] Citizens agrees that it incorrectly closed the DSM amounts in I.O. #2829 to plant-in-service. Citizens agrees that it incorrectly closed 1991 DSM costs from I.O. account #2829 to 1992 plant-in-service for a total of $552,685.[248] The Company also agrees that $173,230 in R.O. #2792 construction costs which were recorded to plant-in-service in 1992 should have been closed to plant-in-service in 1991.[249] Except for a minor $476 amount that Citizens contests, it agrees that $60,004 recorded in R.O. #2784 in plant-in-service in 1992 should have been closed to plant-in-service in 1991.[250] With the exception of a contested amount of $5,248,[251] Citizens agrees that it incorrectly recorded $57,378 for Millyard payments in RO #2859 to 1992 plant-in-service which should have been closed to plant-in-service in 1991.[252]

In its brief, Citizens maintains that the charges related to its use of the Highgate Converter had to be recorded in 1992 because the determination of Citizens' liability for the charges was not made until 1992. The Company argued that it is not proper, under any accounting procedure, to record costs that the Company does not know it owes, or costs that

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247. Exh. CUC-RLOB-7 at 8.
248. Citizens Reply Brief 4/18/97, Attachment A at 3.
249. Citizens Reply Brief 4/18/97, Attachment A at 3-4.
250. Citizens Reply Brief 4/18/97, Attachment A at 4.
251. Citizens disagrees with the DPS on two amounts included in this account ($2,618 + $2,630 = $5,248).
252. Citizens Reply Brief 4/18/97, Attachment A at 4.

the Company does not believe are valid, until the validity of such costs is confirmed.[253] However, in its reply brief, Citizens does not dispute that $181,987 of the total cost of $232,764 in R.O. #2859 was recorded in 1991.[254]

In sum, Citizens is in agreement that 1991 plant-in-service amounts that were incorrectly closed in 1992, total *at a minimum* $837,573.[255] Citizens furtr agrees that if VED purchases a piece of equipment or a service in 1992, the invoice for that service should be recorded in the plant accounts or expense accounts in 1992. Citizens offers no reason why these invoices were not included in the year-end accrual entries.[256] We conclude that Citizens has not been vigilant in booking plant-in-service amounts in the correct years. In addition, we are concerned that the errors acknowledged by the Company did occur in a test year. The Company's oversight and management of accounting responsibilities have been lax. We are especially concerned with the Company's responsibility, or lack thereof, in light of its inability to provide an explanation for past inaccuracies.

c. Charges by Stamford to VED

755. During 1992, Citizens made monthly journal entries by which it charged VED CWIP accounts a total of $654,715, for A&G expenses, and credited the Stamford home office account. Exh. DPS-SL-1 at Tab 111.

756. Each month, Citizens charges VED for Vermont's allocated share of Stamford expenses. These expenses are charged to Vermont expense accounts. Monthly journal entries (JE10) record these A&G expense charges on Vermont's books. The 1992 charges from Stamford to Vermont, as recorded through JE10, total $1,644,388. Exh. DPS-SL-1 at Tab 218.

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253. CUC-RLOB-7 at 5.

254. Citizens Reply Brief 4/18/97, Attachment A at 5.

255. The following amounts are not contested by Citizens ($552,685 + 173,230 + 59,528 + 52,130 = $ 837,573

256. Exh. CUC-RLOB-7 at 9.

757. Stamford office charges are made based on the time sheets of employees of the Stamford office and on charges for other expenses, either direct or indirect. Tr. 3/18/97 at 39 (O'Brien).

758. Payroll overheads are an indirect, not a direct, cost. Tr. 3/18/97 at 39 (O'Brien).

759. The Department asked for appropriate documentation from Citizens for the following charges from Stamford to VED: A&G charges to CWIP, A&G charges to expense accounts, and payroll overheads charged to Vermont. Exh. DPS-SL-1 at 1, Tab 5 at 2, Tab 8 at 7.

760. Citizens was told that the supporting documentation it provided the DPS for this request was "unresponsive." Exh. DPS-SL-1, Tab 8 at 7.

761. At the exit conference on February 10, 1997, with Mr. Laskow, Citizens stated it would send the Department the documentation on the following charges from Stamford to VED: (1) SAO charges to VED for A&G expenses; (2) depreciation of costs associated with I.O. #2829; (3) Troy Dam/Jay Peak documentation; (4) inclusion of payroll overheads in calculation of A&G charges to CWIP accounts. Exh. DPS-SL-2 at 1.

762. At the hearing on March 18, 1997, Citizens' witness claimed that he was not sure the Company had agreed to provide information on item #4, inclusion of payroll overheads and calculations of A&G charges to CWIP accounts. Tr. 3/18/97 at 53-4 (O'Brien).

763. The same witness stated that, after the exit conference with Mr. Laskow, the Company decided to wait and see Mr. Laskow's report. After reviewing that report, Citizens decided not to supply the Department with that documentation directly, but decided to file it with the Board in Mr. O'Brien's rebuttal testimony. Citizens did not inform the Department

of the Company's decision not to provide the information prior to the rebuttal filings.[257] Tr. 3/18/97 at 44-45 (O'Brien).

764. Mr. Ross, Mr. Sadowski (manager of Capital Asset Accounting and Recovery) and Mr. Mitten (Citizens' Counsel) were informed of the Company's decision but did not counsel Mr. O'Brien to provide the information to the DPS or inform the DPS of Citizens' decision not to provide it. Tr. 3/18/97 at 67 (O'Brien).

765. Mr. O'Brien's rebuttal testimony on this issue does not provide documentation of these charges; rather it states again that applying overheads to construction expenditures is a normal procedure and true-ups from budgeted amounts occur every year. Exh. CUC-RLOB-7 at 10, Attachment A at 53.

766. Because appropriate documentation has never been supplied, the Department was unable to come to a conclusion as to whether the A&G expenses charged to VED's plant and expense accounts are accurate. Exh. DPS-SL-2 at 2.

Discussion re Charges by Stamford to VED

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257. It is worth quoting from the transcript on this point:

Mr. COEN: So, you unilaterally made the decision to withhold information on that basis:

WITNESS: I made the decision to provide the information at a later date.

Mr. COEN: But you made a decision to withhold information from Mr. Laskow on that basis and then you made a second decision to provide information in this format a (sic) later date?

WITNESS: I look at them as one decision, but I did make that decision.

and

MS. RUDE: But, sir, just so I understand, you did not inform the Department of your decision either at the meeting or two days later when you made the decision that you were not going to provide them with the information?

WITNESS: That's correct. And in reflection, I believe I was wrong in doing that.

Tr. 3/18/97 at 48, 57.

The Department argues that a Company is under an obligation to substantiate its costs upon the request of regulators and that Citizens' refusal to do so in this case is cause for concern.[258]

Citizens responds that this is a rate issue that has been fully explored in prior proceedings, because it involves 1992 costs and 1992 was a test year for VED. Therefore, the Company argues, these costs are known to the regulators and have been reviewed by the DPS and the Board. The Company claims that regulators cannot now allege that the "level of SAO costs was wrong." Citizens further argues that Laskow's charge was to determine if the Company's books accurately reflect Citizens' costs, and that "such a foray by Mr. Laskow was beyond the scope of Mr. Laskow's investigation."[259]

In addition, during the hearings, Citizens stated that SAO charges should be treated like those of any other vendor providing service to Vermont, and review should be limited to whether those charges are correctly recorded on VED's books.[260] Citizens restated this position in its reply brief: "If SAO overcharged or undercharged VED in 1992 is not at issue, but rather whether VED in 1992 correctly accounted for all costs it incurred and attempted to pass on to VED ratepayers."[261]

Citizens' claim that overhead and other charges from SAO to VED should be treated like those of any other vendor is unacceptable. We have addressed the issue of affiliate transactions in a number of other cases.[262] We require utilities operating in this state to keep clear and detailed records that provide justification for corporate costs that are allocated to an affiliate. It is clear from the record of accounting interactions between VED and SAO that are outlined in Part Two, Subpart II(K)(5) below, that there is significant *potential* for the abuse of such transactions. It is thus critical that a company like Citizens, whose corporate structure

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258. DPS Reply Brief 4/18/97 at 35.

259. Citizens Reply Brief 4/18/97 at 84.

260. In a response to questioning by the DPS on the lack of appropriate backup from Citizens on the SAO model, Mr. O'Brien stated, "And the contract for him [Mr. Laskow] was not to go beyond VED because that takes him up to corporate. This is - - - the charge from SAO is the same as a bill from any other vendor." Tr. 3/18/97 at 38-39, 47 (O'Brien).

261. Citizens Reply Brief 4/18/97 at 78.

262. *See*, e.g., Docket Nos. 5700/5702 (*In re: NET*), Order of 10/5/94 at 82-85; Docket No. 5428 (*In re: GMP*), Order of 1/4/91 at 97-103.

is characterized by a variety of affiliates and profit centers, be able to fully document and justify transactions among the entities. In view of this structure, it is essential that the Company demonstrate the reasonableness of ***all*** charges to Vermont ratepayers. If such expenses cannot be fully substantiated and documented, we would have no choice but to exclude them from rates in the future.

We are concerned by Citizens' persistent refusal to provide the requested documentation on these costs. The fact that the Company raised the defense cited above is, in and of itself, evidence of an insufficient understanding of Vermont law. We concur with the Department that Citizens has not provided any proof of the validity and amounts for the various costs charged by SAO to VED. The Company's unwillingness to provide the Department with back-up documentation of SAO costs that are then allocated and charged to VED is cause for great concern. Citizens' practice, and defense of its practice, must not be allowed to continue into the future. The terms of probation discussed below include oversight of VED and SAO transactions.

d. Misuse of Account #183

767. VED capitalized the $50,777 expense associated with the 1991 use of the Highgate converter and booked it to plant-in-service in 1992. Exh. DPS-SL-1 at 3-5.

768. The use of the Highgate converter when VED's system is not operational is equivalent to leasing a facility. The payment for that lease should be expensed. *Id.* at 5.

769. Citizens determined in 1992 that the Highgate costs were valid, and thus recorded them in that year. Exh. CUC-RLOB-7 at 5.

770. Citizens accrued DSM costs incurred in 1992, totaling $46,925, by a 12/31/92 journal entry which credited Account #183. Exh. DPS-SL-1 at Tab 57.

771. Citizens accrued additional DSM costs incurred in 1992, totaling $126,551, by a journal entry which credited Account #183. Exh. DPS-SL-1 at Tab 58.

772. The accrual of unpaid bills for DSM costs was credited to Account #183 instead of a liability account. Exh. DPS-SL-1 at 21.

773. VED used Account #183 to record liabilities for services instead of using accounts payable. Exh. CUC-RLOB-7 at 5.

774. Citizens charged Account #183 and credited the home office account, reflecting a credit memo entered into the Manager Fund bank account at Chittenden Bank. Exh. DPS-SL-1 at Tab 35.

775. The transaction revealed that the wire transfer of $32,257 had not been entered in Citizens' general ledger, and that the general ledger account did not reflect any transactions in 1992. Exh. DPS-SL-1 at Tab 36.

776. In 1992, deposits into the Manager Fund bank account totaled $538,025, while disbursements from the account totaled $533,879. Exh. DPS-SL-1 at 13.

777. Citizens used the Manager Fund in this case to make a wire transfer from Citizens' home office to VED for the payment to the City of Newport for property taxes. This credit to the Managers' Fund is acceptable. Exh. DPS-SL-1 at 14.

778. Citizens failed to record any of the transactions from the Manager Fund in its General Ledger. Exh. DPS-SL-1 at 13.

779. Citizens has admitted that the use of Account #183 as a temporary holding account for year-end accounts payable, as well as other uses, was improper, and that it would cease using the account improperly. Exh. DPS-SL-1 at 77-78.

Discussion re Misuse of Account #183

In the case of the Highgate converter, Citizens made two accounting errors. The costs associated with the temporary use of this facility were capitalized, rather than expensed; and the costs were incurred in 1991 yet booked in 1992. The accrual of unpaid bills in Account #183 should have been credited to a liability account. While the transfer from the home office to VED's managers' fund for payment of property taxes was acceptable, Citizens failed to record any of the transactions from the Manager Fund in its General Ledger.

These are only two of the examples of the misuse of Account #183. In its reply brief, Citizens concedes that it has not appropriately used Account #183 but, though the account was used improperly, there were no adverse impacts on ratepayers.[263] This assertion is not supported by the evidence, which is not conclusive on this point. But it is not directly

263. Citizens Reply Brief 4/18/97 at 85.

relevant: the improper use of accounts and accounting procedures is, in and of itself, an imprudent action on the part of management. We find such practice unacceptable, regardless of whether it resulted in adverse ratepayer impacts in a particular instance.

e. Misuse of Account #992

780. Citizens uses Account #992 as a clearing account for materials and expenses. Each month the Company allocates such charges to the appropriate general ledger accounts. Exh. DPS-SL-2 at Tab 213 at 3.

781. The Laskow investigation found individual items charged to this account which ranged from less than $1.00 to $25,995. Exh. DPS-SL-2 at Tab 222.

782. Some charges do not appear to be related to the CWIP and expense accounts to which they were subsequently allocated. Exh. DPS-SL-7.

Discussion re Misuse of Account #992

Citizens, in its reply brief, argues that it uses this account merely as a holding account which is cleared monthly. The items in this account represent "minor miscellaneous costs."[264] There is no argument as to the use of this account as a clearing account; however, in light of some of the large charges to this account, Citizens' explanation that the items are minor miscellaneous costs does not seem credible. We would expect such charges to be booked directly to the account for which they are ultimately intended. The use of this account should be carefully monitored. Implementation of this monitoring will be addressed in the terms of probation that will be imposed upon the Company.

f. Improper Recording of 1992 Invoices as 1993 Expenses

783. The DPS investigation found more than $230,000 in invoices that Citizens failed to report as 1992 costs and expenses. Exh. DPS-SL-1 at 68-70.

784. These invoices should have been accrued as expense or capital in 1992. Exh. DPS-SL-1 at 73.

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264. Citizens Reply Brief 4/18/97 at 86.

Discussion re Improper Recording of 1992 Invoices as 1993 Expenses

Citizens concedes that certain invoices recorded in 1993 should have been recorded in 1992 when incurred.[265] Citizens states that this was due to the manner in which VED closed its books at year-end. The invoices were recorded at the Stamford office in 1992, but not recorded on the property level until 1993.[266] The DPS contends that the effect of failing to record invoices in the year in which they were incurred could alter the Company's net income by a material amount.[267] Citizens argues that its failure to record some 1992 expenditures had no adverse ratepayer impact. Citizens' argument that this practice had no significant impact in a particular instance is beside the point, since such a practice could have an impact and cannot be condoned. We consider the remedies to address the Company's failure to properly record costs in Part Two, Subpart III, below.

g. Use of Blanket Orders

785. At VED, blanket orders were used to budget for non-itemized projects. Use of blanket orders was standard practice for projects such as line extensions, services, meters, and the replacement of transformers. Exh. DPS-WS-7 at 3.

786. Citizens wrote 14 blanket orders in 1992 for a total of $1,230,000. This was about 25 percent of its total capital budget for 1992. Four of the largest blanket orders totaled $980,000. Exh. DPS-SL-1 at 79.

787. Historically, around 50 percent of VED's plant is entered from blanket orders. Tr. 12/2/96 at 209 (Petit).

788. Blanket orders are automatically closed to plant. Tr. 12/2/96 at 238 (Petit).

789. In utility accounting practice, generally, when costs are booked to a blanket order, identifying specific cost elements becomes difficult. Tr. 11/14/96 at 182-183 (Randall).

790. A blanket is generally not used for large projects. Typically a company would use blankets for small recurring projects. Tr. 11/14/96 at 184 (Randall).

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265. Citizens Reply Brief 4/18/97 at 87.
266. Tr. 3/28/97 at 86 (O'Brien).
267. DPS Brief 4/9/97 at 118.

791. Major projects should not be booked to a blanket order. Tr. 11/14/96 at 198 (Randall).

792. Generally any large project should have its own I.O. rather than being booked to a blanket order. A large I.O. should not disappear somewhere in a blanket order. Tr. 12/2/96 at 181 (Petit).

793. Most companies have formal policies that define when a blanket should be used. Citizens had a policy that I.O.s greater than $10,000 should not be booked to blanket orders. Tr. 11/14/96 at 186 (Randall); tr. 12/2/96 at 199-200, 206 (Petit).

794. Normally, blanket orders are used for jobs that are relatively short in duration. Blanket orders will normally be cleared in a month or two rather than stretch on for a year or two years. Over a longer period, costs will build up; therefore, longer projects should be booked to a separate budget or I.O., not to a blanket order. Tr. 11/14/96 at 197 (Randall).

795. To find support for costs booked to its general ledger, a company should always be able to trace back to the source document. Blanket orders can create a problem, because it may not be possible to identify specific assets associated with costs. There would not be sufficient detail in the blanket order to trace back costs. Tr. 11/14/96 at 253-255 (Randall).

796. A significant portion of the costs for the Island Pond-to-Bloomfield line did not have separate work orders. These costs had been entered in blanket orders without identification as to property. Tr. 12/2/96 at 181-182 (Petit).

797. The Island Pond to Bloomfield line was booked to thirteen different I.O.s. Of the thirteen, ten were under $10,000. The use of blanket orders for I.O.s greater than $10,000 for this line violated Company policy. Tr. 12/2/96 at 198-200, 206 (Petit).

798. Because the costs of this line were included in many I.O.s, it took Citizens 13 work days to determine the cost of the Island Pond to Bloomfield line. Tr. 12/2/96 at 202 (Petit).

799. In September 1992, Mr. Arnold notified the President of Citizens by letter that the work being performed on the Island Pond to Bloomfield line was being hidden within blanket orders. Exh. DPS-REA-3.

800. Mr. Avery provided a written response to Mr. Arnold's letter on September 30, 1992, stating that the cost of the Island Pond to Bloomfield upgrade had been incorrectly

charged to a blanket work order, but procedures would be modified to insure proper future handling of large projects. Exh. DPS-REA-5.

801. Citizens' Chairman was notified in April, 1994, that a cost of more than $1,000,000, under cover of blanket orders, had been incurred in connection with a three-phase line, without ever having been budgeted. Exh. DPS-REA-3.

802. Citizens' review team, convened in response to the April 1994 letter, concluded that while it is standard practice for VED to budget for non-itemized projects in blanket accounts, budgeting individual projects in this manner makes accumulation of project costs time consuming, difficult, and in some cases impossible. This conclusion was brought to the attention of Citizens' President Ferguson by a letter dated May 16, 1994. Exh. DPS-WS-7 at 3.

803. FERC rule 11B states in relevant part:

> Each utility shall keep its work order system so as to show the nature of each addition to or retirement of electric plant, the total cost thereof, the source or sources of costs, and the electric plant account or accounts to which charged or credited. Work orders covering jobs of short duration may be cleared monthly.
>
> Exh. DPS-2.

Discussion re Use of Blanket Orders

FERC Rule 11B allows the use of blanket work orders for jobs of short duration. Citizens concedes that its use of blanket work orders for projects of "some" duration was an error and that this practice will change.[268] While the concession is appropriate, it cannot mask the significant accounting failure at issue here: the Company misused blanket work orders, including blanket work orders for a project that totaled over $1,000,000 in total costs. Citizens' practice with respect to this project violated its own internal policy for blanket orders. And, according to the Company's own witness, its policies with respect to the use of blanket orders are not in keeping with what is generally expected from other large utilities, nor is it consistent with FERC accounting rules.

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268. Citizens Reply Brief 4/18/97 at 88.

It is unquestionable that Citizens has misused blanket orders at VED. It is especially disconcerting that this practice, which the Company now concedes was in error, was brought to the attention of senior management as early as September 1992, and yet the Company has only recently claimed to have put a halt to this practice.[269] This lack of action on the part of Citizens' management was imprudent. We once again find that Citizens' actions, in this case the inappropriate use of blanket work orders, and the failure to properly account for a very large project, is indicative of the overall failure of Citizens to responsibly manage the accounts of VED. Appropriate remedies are discussed in Part Two, Subpart III(B) below.

2. Lack of Proper Accounting - Other

a. Failure to Collect Contributions in Aid of Construction ("CIAC")

804. In 1992, in Docket No. 5496-B, the Board ruled that a customer requesting an electric line extension should bear the full cost of providing that service, and that the tax assessment flowing to the utility as a result of that income is a legitimate cost of the line extension to be paid for by the customer. Tr. 2/5/97 at 33-34 (O'Brien); Docket No. 5496-B, Order of 9/30/96.

805. Notwithstanding the Board order, VED has not charged the tax to its customers. *Id.* at 27-28, 34-42.

806. Citizens' Vermont tariffs require that a customer requesting a line extension pay the full cost of the line extension, less a service drop credit. The customer's contribution for the line extension represents taxable income to the Company, and thus the contribution increases the Company's taxes. Tr. 12/2/96 at 163 (Petit); exh. Board-2R at 3.

807. Citizens has not demonstrated that its transmission plant accounts properly reflect contributions in aid of construction. Saunders pf. reb. 1/21/97 at 2.

808. Citizens has agreed that it failed to follow the Board ruling for using the full "gross-up" procedure for determining the payment of tax on CIAC. O'Brien pf. reb. 1/24/97 at 18-19.

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269. Citizens states that the annual amount of blanket I.O.s has been reduced from $500,000 to $100,000 as part of the 1997 budget. Lass reb. pf. 1/24/97 at 15.

b. Capitalization of Equipment Costs

809. At VED, Citizens capitalized the cost of equipment at the time of purchase. Tr. 2/4/97 at 163-164 (Guyette).

810. The cost of equipment at other Citizens' properties was not capitalized until it was installed. *Id*. at 164.

c. Omission of Information

811. The 1992 books of VED did not give explanations for their entries, mislabeling some, and failing to label others. Tr. 3/17/97 at 24-25 (Laskow).

812. Many transfers between I.O.s are not explained or cross-referenced. Tr. 3/17/97 at 56-57 (Laskow).

813. 1992 bills submitted to the DPS had inadequate or no information with respect to general ledger or FERC account numbers. Exh. DPS-SL at 5; exh. DPS-SL at 5-6.

Discussion re Lack of Proper Accounting - Other

Based on existing tax law, payment of CIAC by customers requesting line extensions is treated as taxable income to the utilities. In a 1992 Board Order in a case involving CVPS and GMP, to which Citizens was a party, the Board ruled that because CIAC is treated as taxable income, the burden of paying the tax should fall on the customer requesting the line extension. Citizens says it did not become aware of VED's failure to collect the tax until late in 1996.[270] Citizens concedes that it failed to collect the "gross-up" for income taxes due on CIAC and should have done so according to its tariff. The Company acknowledges that this procedure must be changed.[271]

In other important respects, Citizens has not set up its accounting system in a way that allows information to be made readily available. This is certainly of concern to regulators, and should be to Company management as well. Such practices are not acceptable. It is incumbent upon the regulated industries of this state to maintain their books and records so

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270. Tr. 2/5/97 at 31 (O'Brien).
271. Citizens Reply Brief 4/18/97 at 78.

that charges that the companies seek to have recovered from ratepayers can be analyzed expeditiously and thoroughly. We find that Citizens has been negligent in this regard.

3. Citizens' FERC Plant Records

a. Lack of Proper Accounting for Transmission and Distribution Plant

814. The record contains evidence of improper booking of items to various plant accounts. Over 230 items that Citizens has booked in its transmission plant accounts likely are distribution or generation facilities. Citizens also included 34 items in its transmission plant accounts which may have never been built or have been retired. 200 additional items were inappropriately included in Citizens' transmission plant accounts. Exh. DPS-REA-23 at Tab 4.

815. Citizens' transmission accounts include one-third more transmission conductor more than one-half again the number of crossarms, and more than one-half again the number of transmission poles realistically needed by VED. Exh. DPS-REA-23 at Tabs 4, 5.

816. Citizens is unable to identify transmission poles as they are retired. *Id* at 5.

817. Citizens has included in its transmission or retail ratebase facilities which have been improperly allocated with respect to FERC's Uniform System of Accounts. Arnold pf. 5/15/96 at 46.

818. CVPS quantified the results of these claims and concluded that Citizens' transmission plant account cannot be relied upon in determining transmission rate base. Saunders pf. 5/15/96 at 3-4.

819. Citizens consultant Randall reviewed two dozen of the hundreds of plant items itemized in finding 814. Mr. Randall relied upon interviews from Mr. Avery and Mr. Petit in his review; he did not review original plant records for specific items. Randall pf. 8/20/96 at 6; tr. 11/14/96 at 209-215, 239 (Randall).

820. Citizens has acknowledged that there is some misclassification of plant between transmission and distribution. Randall pf. 8/20/96 at 6.

821. Citizens has failed to credit all contributions in aid of construction against transmission plant accounts. *See*, findings Part Two, Subpart II(K)(2)(a) above.

822. Citizens acknowledges that there are some assets remaining on the books that are retired and no longer in service, or should be retired. *Id.*; tr. 11/14/96 at 210 (Randall).

823. Citizens' plant records cannot identify poles by location. Tr. 11/14/96 at 173 (Randall).

824. In the CVPS transmission plant records, each line is identified by a line number and each pole has a unique location number. Tr. 10/16/96 at 66-67 (Watts).

825. Citizens' transmission plant books and records should be thoroughly reviewed and adjustments made after the review is completed. Randall pf. 8/20/96 at 15.

826. An audit of Citizens' transmission plant accounts is necessary to bring the Company into compliance with the FERC Uniform System of Accounts. Saunders pf. reb. 1/21/97 at 4.

827. Citizens has agreed, in the context of the FERC case, to an audit of VED's transmission plant accounts. Lass pf. 1/24/97 at 14.

828. Citizens' Vice President, Public Services Sector, agreed that an audit of its distribution plant would be appropriate if evidence of lack of proper accounting in the Company's transmission plant accounts raises concerns for regulators regarding its accounting for its distribution plant. Distribution plant audits are normally expensive and time consuming. Tr. 2/6/97 at 131 (Love).

829. The Department's review of specific accounts was limited to transmission plant. The total impact of any accounting irregularities on Citizens' retail ratepayers cannot be known until a similar investigation of Citizens' distribution and generation plant is performed. Saunders pf. 5/15/96 at 6-7.

b. Rate Base Impacts from Accounting Deficiencies for T&D plant

830. Citizens' revised Schedule B-4 shows total transmission rate base for 1995 as $17,736,383. Total plant in service for the same period is $58,544,510. Exh. CUC-KMK-6

831. There are several types of transmission plant costs that do not appear justified: $245,714 of plant no longer in service; $282,467 of superfluous poles; $77,704 of superfluous cross arms; $295,175 of superfluous conductor; and $937,098 of plant identified as inappropriate for other reasons (unidentified item and/or location, facility not owned by

Citizens, etc.). The total value of these items, either improperly classified, unidentified, or excess plant items, is approximately $1.6 million ($1,592,444). These items should be removed from Citizens' transmission plant accounts and from its total plant in service. Saunders pf. 5/15/96 at 5-6; Schultz/DeRonne supp. pf. 11/12/96 at 1.

832. A total of 1466 transmission poles were identified as excess. However, the identification of specific poles is impossible because Citizens does not use location codes for its poles. The average cost of all remaining poles in specific improvement orders was used to calculate the value of the surplus poles.[272] Exh. CVPS-RDS-1 at 14.

833. A total of 1,082,731 feet of conductor was identified as excess. Citizens' accounts do not identify specific line segments within its transmission accounts. The average cost of identifiable conductor was used to calculate the value of the surplus conductor.[273] Exh. CVPS-RDS-1 at 17.

834. A total of 4,193 crossarms were identified as excess. It is not possible to identify all of the crossarms in Citizens' transmission plant accounts. The average cost of identifiable crossarms was used to calculate the value of the surplus crossarms. Exh. CVPS-RDS-1 at 16.[274]

835. There is $937,098 of plant that is not appropriately identified in the transmission plant accounts. Examples of inappropriate identification include: (1) an item that is unidentified altogether, (2) an item for which the location of the item is not identified, and (3) an item is identified but it is a facility that is not owned by Citizens. Exh. CVPS-RDS-1 at 9.

836. A number of other adjustments to Citizens' transmission plant would be appropriate. An adjustment to reflect the accumulated depreciation on the value of the items identified as excess is reasonable. In addition, Citizens did not deduct $407,477 in CIAC against its transmission plant accounts. That amount should, therefore, be removed from

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272. An average cost of $193 per pole was applied to 1,466 poles. The mathematical discrepancy is likely due to a rounding error.

273. An average cost of $0.27 per foot of conductor was applied to the surplus of 1,082,731 feet. A rounding error is the likely cause of the discrepancy in total.

274. An average cost of $28.63 was applied to the surplus of 2,714 crossarms.

transmission plant in service to reflect customer contributions in aid of construction that Citizens has received. Saunders pf. 5/15/96 at 6; exh. CVPS-RDS-1 at 9.

837. Citizens should determine actual retirement experience for T&D equipment. It has not done so. Absent proof of such experience, it is reasonable to assume that the accumulated depreciation on the excess equipment is the same as the average for all transmission plant. Saunders pf. rebuttal 1/21/97 at 3.

838. To the extent that the transmission plant accounts contain superfluous poles, crossarms, or conductor, Citizens has historically been collecting from its customers (retail and wholesale) more depreciation expense than has been appropriate. Saunders pf. reb. 5/15/96 at 3.

839. Even superfluous plant items that are relatively old and largely depreciated would affect revenue requirements to be paid by Citizens' retail and wholesale customers. Citizens calculates its depreciation expense (which is part of the carrying charge on transmission plant) based on the total transmission plant in service, not the depreciated balance. This means that any transmission plant shown to be surplus, regardless of its age, will directly reduce the Company's depreciation expense. Saunders pf. reb. 5/15/96 at 3.

840. The total impact of T&D accounting errors on Citizens' retail ratepayers cannot be known until a similar investigation of Citizen's distribution and generation plant is performed. Saunders pf. 5/15/96 at 6.

Discussion re Citizens' FERC Plant Records

We conclude that the Company has failed to maintain its plant records so that the Department, the Board, and Citizens' customers can rely upon them for the purpose of rate recovery. CVPS and the Villages are transmission customers of Citizens. Citizens' transmission charges to these customers are included in the retail rates of CVPS and the Villages. To the extent that Citizens has misallocated plant between its distribution and transmission plant accounts, there could be potential impact on both Citizens' retail and wholesale customers.

The Villages agree that Citizens' retail ratepayers likely are paying unjustifiably inflated rates based on inaccurate plant records.[275] The Department requests that we adopt a rate base adjustment deducting these items from Citizens' transmission plant-in-service because the testimony from the DPS and the intervenors has rebutted the presumption that is enjoyed by Citizens on this issue.[276]

We agree that the presumption of regulatory propriety that attends the Company for ratemaking purposes has been removed. The Company did not respond with evidence to substantiate these plant items. The Company's expert witness examined only a small sample of the hundreds of items in dispute. The Company's examination, however, revealed a number of accounting discrepancies in the sample. The Company agrees that at least some portion of these items were misclassified. Furthermore, the witness stated that he relied upon statements made to him by others in his examination of these items, rather than conducting his own independent review. The parties in this proceeding have demonstrated important accounting errors, and have raised serious claims about the overall booking of Citizens' accounts. The Company did not present evidence to rebut the Department's testimony on specific plant items that may have been inappropriately accounted for on the Company's books.[277] We are left with very serious doubts about the accuracy of Citizens' transmission and distribution accounts.

In its brief, Citizens concedes that it could have kept more detail in its records. However, the Company argues that the failure to identify an item in the plant records or to provide a location code for an item, does not mean that the facility or item is not in existence or is not currently in service.[278] This is a problem of Citizens' own making which the use of more complete records could have been avoided. Accurate recordkeeping is incumbent upon any company that wishes to recover such costs in rates.

In its reply brief, Citizens submits that there is a "settlement in principle" at FERC with CVPS and the Villages. CVPS submitted a filing in lieu of a brief in this Docket in

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275. Villages Brief 4/7/97 at 5.
276. DPS reply comments on rate issues, 5/16/97 at 2.
277. Tr. 11/14/96 at 212 (Randall); Randall pf. 8/20/96 at 6.
278. Citizens Brief 4/7/97 at 228.

which it states that CVPS, Citizens, and the other parties in the FERC proceeding have unanimously agreed to this settlement.[279] The "settlement in principle" has not been finalized.

Citizens argues that no items should be removed from its transmission plant accounts at this time; rather, if rate relief is in order, it should come only after the results of a plant audit are taken into consideration.[280] Furthermore, the Company argues that, in light of the potential settlement at FERC, its transmission plant records should be adjusted once and only once as the parties have agreed to in principle. The Villages argue that while the wholesale ratepayers have reached a settlement that, if implemented, would be accompanied by a refund for wholesale customers, this settlement does not assure that retail ratepayers would be made whole.[281] The Villages ask that we implement the adjustments to transmission plant identified in the findings above.[282]

We concur with the Villages. To date, no settlement of the FERC case has been filed in this Docket. We have no indication of the terms of that proposed settlement. In this case, Citizens has been confronted with substantial documentation evidencing a wide range of items that should not be included in its transmission plant. Citizens has agreed that some of these items have been misbooked. The evidence in this record shows that Citizens has failed to meet its burden of proof with respect to these plant records to show that they can be relied upon in a regulatory proceeding for both accuracy and completeness. There is certainly potential for a significant impact upon retail ratepayers from the misclassification of plant accounts. Transmission plant which has been misclassified includes: (1) $282,467 of poles; (2) $77,704 of crossarms; (3) $295,175 of conductor; and (4) $937,098 of plant that is not appropriately identified. We conclude that Citizens shall remove the total value of these misclassified items, $1,592,444, from its transmission plant-in-service.

Citizens' own witness recommends that the Company adopt changes in practices and procedures for the recording of activity involving the FERC plant accounts. Those recommendations include: adoption of more formal procedures for determining the

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279. CVPS filing in lieu of brief, 4/7/97.
280. Citizens Reply Brief 4/18/97 at 89.
281. Villages Brief 4/7/97 at 6.
282. Villages Brief on exceptions on PFD, 5/27/97 at 3-6.

classification of assets and reporting retirements; performance of post-completion audits for all projects with improvement and replacement orders, with the involvement of both financial and operating personnel; revisiting Company policy regarding the use of blanket work orders to make sure that all appropriate personnel are aware of the policy; assigning location codes to transmission line segments; and providing training in the Uniform System of Accounts for all appropriate personnel.[283] Other utilities in this state use location codes in their plant records. We see no reason why Citizens should not keep accurate records so as to ensure that rates are based on the proper plant investment for the services that ratepayers receive.[284]

These changes, if implemented, would be a minimal effort to rehabilitate what is clearly an accounting system that is not reliable. The Company has conceded that adjustments to its plant accounts are needed. However, Citizens would ask us to wait for the result of an audit of its transmission accounts before providing rate relief, if any, that may be justified as a result shown by such an audit.[285]

Given the problems in Citizens' transmission plant accounts uncovered in this proceeding, we are concerned that there may very well be similar problems in the records of Citizens' distribution plant. Citizens has offered to undertake an audit of its distribution plant if concerns over accounting for transmission plant raised similar issues for distribution plant.

In addition to the adjustment of $1,592,444 that shall be made to Citizens' transmission plant-in-service, we will order Citizens to undertake, at Company expense, audits of its transmission and distribution plant accounts, as discussed in Part Two, Subpart III(B), below. Any settlement in the FERC docket of this issue with respect to Citizens' transmission plant would not necessarily be considered a showing that Citizens' distribution plant accounts are in order. Additional rate adjustments, if shown to be necessary after the results of these audits, will have to be made after that evidence has been adduced in this, or, a later case.

4. Lack of Uniformity with the FERC System of Accounts

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283. Exh. Villages-Cross-5.
284. Watts pf. reb. 1/21/97 at 3.
285. Citizens Reply Brief 4/18/97 at 89.

841. The purpose of the FERC Uniform System of Accounts ("FERC-SA") is to enable regulators to determine utility costs using a common set of accounting principles and nomenclature. FERC conducts regular audits of all utilities subject to its regulation. Exh. CVPS-RDS-1 at 22, 23.

842. Citizens has committed numerous violations of the plant instructions to the FERC-SA. Saunders pf. 5/15/96 at 3-4.

843. Citizens' transmission plant accounting is inconsistent with the FERC Uniform System of Accounts. Citizens' plant records show a pervasive failure to follow the FERC-SA. Saunders pf. 5/15/96 at 9-10 and generally.

844. Citizens concedes that actions of VED, specifically not having appropriate location codes for the major plant items, are not in full compliance with the requirements of FERC. O'Brien pf. 1/24/97 at 12-13; Love pf. 1/24/97 at 6.

845. FERC-SA plant instruction 2D states that it is appropriate to offset transmission plant accounts by the amounts of contribution in aid of construction received. Saunders pf. reb. 1/21/97 at 2.

846. Citizens has violated plant instruction 10 of the FERC-SA by failing to remove the cost of retired plant from plant in service. Exh. CVPS-RDS-1 at 26.

847. Citizens has not followed plant instruction 10D of the FERC-SA in its retirement of transmission poles. Plant instruction 10D requires a company to retire property at book cost, or if that cost cannot be identified, at the average cost of all items. Exh. CVPS-RDS-1 at 26-27.

848. Citizens agrees that it is not in strict compliance with plant instruction 10 of the FERC-SA. Tr. 11/14/96 at 290-291 (Randall).

849. FERC Rule 11B relating to work orders allows work orders covering jobs of short duration to be cleared monthly. Citizens refers to such work orders as "blankets." Tr. of 11/14/96 at 187 (Randall).

850. Citizens had made extensive use of blanket orders for large projects which occur over a long period of time. Tr. 12/2/96 at 209, 238 (Petit); *see* findings Part Two, Subpart II(K)(1)(g) above.

851. Citizens has violated plant instruction 11B of the FERC-SA which requires each utility to "keep its work order system so as to show the nature of each addition to or retirement of electric plant . . . ." Exh. CVPS-RDS-1 at 27.

852. Instructions 14A and 14B of the FERC-SA require plant investment to be segregated by function and recorded in the distribution or transmission plant accounts according to which function each item of plant serves. Utilities are not allowed to misbook investments in distribution facilities to the transmission plant accounts or vice versa. Exh. CVPS-RDS-1 at 25.

853. Citizens' failure to book hundreds of items to the proper account is a violation of instructions 14A and 14B of the FERC-SA. Exh. CVPS-RDS-1 at 26.

854. A failure by Citizens to properly allocate transmission plant with respect to the FERC-SA could be an indication that similar problems exist with respect to Citizens' distribution plant. Tr. 11/14/96 at 171-172 (Randall).

855. Citizens' compliance with FERC accounting rules needs improvement and a review should be made of all aspects of Citizens' books and record-keeping, including distribution plant. All practices and procedures affecting the Company's books and records need to be reviewed. Randall pf. 8/20/96 at 15; tr. 11/14/96 at 270-274, 285-286, 288, and 290 (Randall).

Discussion re Lack of Uniformity with the FERC System of Accounts

The Uniform System of Accounts serves as a cornerstone for the regulatory process, without which any attempt to regulate rates would be ineffective. The Uniform System can only perform that function, however, if utilities follow the system in their own accounting. If a utility does not follow these principles, regulators and ratepayers are left without a reliable basis for establishing just and reasonable rates. Generally, members of the utility industry have maintained reliable accounting records in accordance with the Uniform System of Accounts subject to Commission supervision and oversight. Citizens, however, has not.

Citizens has committed numerous violations of the plant instructions to the FERC-SA. As a result, Citizens' transmission plant records are not a reliable basis for determining transmission rates. Given the disarray in Citizens' FERC records with respect to its

transmission plant, we find that Citizens' distribution plant records are likely to be similarly untrustworthy.

Citizens has argued that these lapses occurred because the Company's resources were directed elsewhere.[286] Citizens also argues that despite the creation and re-creation and construction and reconstruction of Citizens' books anew, its books did not differ in any material way from what it reported on its FERC Form 1. Thus, despite whatever shortcomings Citizens might have, it claims that its books of account can be relied upon.[287]

We conclude that Citizens has not kept its books in conformity with the requirements of the FERC Uniform System of Accounts. This is unacceptable. The Company's argument, that because the recreation of VED's books for 1992 does not differ from what it reported for that year on its FERC Form 1, in no way excuses the irregularities in accounting that have been found, and in many cases agreed to by Citizens, in its FERC accounting practices. We will require that the Company remedy this situation by submitting to an audit of both its transmission and distribution accounts supervised by a Board-appointed master.

5. Relationship between VED and SAO

a. Accounting Issues

856. MWIP reports are generated by Stamford plant accounting and construction systems and are reviewed by Stamford's plant accounting personnel. Tr. 2/5/97 at 110-111 (O'Brien).

857. There is one set of plant records for the Vermont Electric Division and they are kept at the Stamford corporate office. Tr. 12/2/96 at 157 (Petit).

858. When VED's books are ready to be closed at the end of the year, they are released to the corporate offices in Stamford. Some charges, such as overheads, may come in from Stamford and VED waits to be sure all charges from Stamford are recorded before it closes its books. Tr. 12/18/96 at 207-208 (Petit).

859. AFUDC calculations are performed in Stamford. The AFUDC rate is also set at Stamford. Tr. 12/18/96 at 218 (Petit).

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286. Love 1/24/97 pf. at 21.
287. Citizens Brief 4/7/97 at 4.

860. Administrative and general charges ("A&G") from SAO to VED are sometimes phoned in to VED from the Stamford office. Written documentation will follow that will show summaries of the A&G charge. Tr. 12/18/96 at 229-230 (Petit).

861. SAO also provides input to VED for the components of CWIP charges to be entered in VED's books so that VED books reconcile with Citizens' corporate books. Tr. 12/18/96 at 232 (Petit).

862. Charges for benefits such as welfare and pensions come from SAO to VED. In 1994, these items were entered as year-end charges and they totaled $372,000. Tr. 12/18/96 at 233 (Petit).

863. Mr. Petit would have to go into the individual I.O.s and look at each charge to determine the details or components of the charges from SAO to VED. Tr. 12/18/96 at 230 (Petit).

864. The corporate office at Stamford provided budgets to each corporate sector, and each budget would be allocated by the sector manager to the different divisions. Each division then had specified funds to allocate to particular projects. Tr. 1/8/97 at 13 (Avery).

865. Project managers within the divisions would make decisions on priorities for various projects. A project that exceeded its budgeted amount by more than 10 percent would have to be explained to the division manager and the sector manager. *Id*. at 13-14.

b. Regulatory Response re Accounting

866. Under the reporting structure in place prior to August 1996, Citizens claimed there was limited interaction with Stamford accounting personnel. O'Brien pf. reb. 3/5/97 at 9.

867. In this proceeding, Citizens made Mr. Petit largely responsible for information requests on accounting matters. Citizens claims that Mr. Petit did not share all of the information requests with Stamford. *Id*.

868. Because of Mr. Petit's limited interaction with Stamford, he may not have been aware of all the support and documentation available from the central office. O'Brien pf. reb. 3/5/97 at 9.

869. Citizens provided Mr. Petit assistance from Messrs. Randall and O'Brien. Mr. O'Brien is a certified CPA and Vice President of Corporate Regulatory Affairs at Citizens. O'Brien pf. reb. 3/5/97 at 7; tr. 3/18/97 at 28.

c. Accounting Responsibility

870. Prior to 1990, Vermont operations were responsible for performing and managing their own accounting. O'Brien pf. reb. 8/23/96 at 6.

871. There is a separate set of accounting records for each property, and separate accounting staff in Vermont maintains Vermont accounting records. Tr. 12/18/96 at 205 (O'Brien).

872. Mr. Petit has been Senior Accountant at VED since 1987. Mr. Petit submitted his resignation in mid-September, 1996. Tr. 12/2/96 at 126 (Petit); Petit pf. 8/20/96 at 1.

873. Prior to 1990, accounting personnel at VED reported to the operating Vice President in charge of Vermont. O'Brien pf. reb. 9/23/96 at 6.

874. Citizens maintains that VED operated on a "stand-alone" basis, and that the Company assumed that VED was operating efficiently and appropriately. O'Brien pf. reb. 9/23/96 at 18.

875. In 1993, Citizens realigned Vermont's accounting functions to create reporting responsibility to the corporate Controller. One of the functions to be undertaken would be to set up uniform policies and procedures for accounting at VED. O'Brien pf. reb. 9/23/96 at 12.

876. The Company's chief financial officer is ultimately responsible for the establishment of the accounting policies and procedures used at Citizens. This responsibility is currently vested in Citizens' Vice President and Controller, Mr. Ross. O'Brien pf. 1/24/97 at 3; tr. 1/8/97 at 16 (Avery).

877. Currently, all of the accounting personnel, including those at the VED, are accountable to Mr. Ross, corporate Vice President and Controller. O'Brien pf. 1/24/97 at 4.

878. Mr. Ross signed VED's 1992 FERC Form 1. VED FERC Form 1, 1995.[288]

879. Since mid-November, 1996, Jeff Christensen has been on-site at the VED to provide assistance with a broad range of accounting functions. Mr. Christensen will report to the Controller of the Public Services Companies Sector, with ultimate supervision by Mr. Ross on all accounting matters. Lass pf. reb. 1/24/97 at 13-14.

880. With regard to the current operating and accounting structure at the VED, Mr. Love is the operating Vice President in charge of the newly-formed Public Services Sector and Ken Cohen is the sector Controller. Mr. Cohen has a dotted-line reporting responsibility to Mr. Love and a solid-line reporting responsibility to Mr. Ross. O'Brien pf. reb. 1/24/97 at 12.

881. With regard to the VED, Mr. Lass is the operating manager of the VED, and Mr. Christensen is the accounting manager who has dotted-line responsibility to Mr. Lass and solid-line to Mr. Cohen, and ultimately to Mr. Ross, with regard to accounting matters. O'Brien pf. reb. 1/24/97 at 12.

882. Under the direction of Mr. Ross, Citizens is currently reviewing its existing accounting policies and procedures. O'Brien pf. reb. 1/24/97 at 6.

Discussion re: Accounting Responsibility and Relationship between VED and SAO

The issue of responsibility for Citizens' accounting practices is important because it (1) provides some insight into how the accounting problems and deficiencies came about originally, (2) where the nexus of responsibility lies within Citizens' corporate hierarchy, and (3) what we may expect in the future for this Company with respect to proper accounting policies and procedures.

Citizens argues that the implementation of its accounting policies and day-to-day practices at the Vermont Electric Division have caused most of the difficulties that have been raised in these proceedings. Implementation, Citizens argues, must be distinguished from the establishment of accounting policies and procedures. The Company would have us believe that responsibility for carrying through these policies lies solely within the VED responsibility

288. Citizens' Annual Reports and FERC Form 1's for the period from 1988 to 1995 are included in the evidentiary record. Tr. 1/8/97 at 241.

center while responsibility for development of accounting policies is that of the highest corporate officials at Citizens. Citizens also asks us to conclude that up until this recent period, VED operated its accounting policies in a "stand-alone" environment. The Company claims that new reporting accountability and established new reporting requirements should eliminate problems in the future.[289]

The Department contests Citizens' contention that VED operated on a "stand-alone" basis, if this statement is meant to be understood as relieving the corporate office at Stamford and high level corporate officials from any responsibility for the accounting discrepancies and poor accounting practices that have been alleged by the Department. The DPS asserts that senior corporate management, including the Controller, were aware of the details and ramifications of the transfers from I.O. #2861 to I.O. #2859, because Citizens stated that accounting personnel compare ongoing construction costs with budgets in order to provide senior management with the information it needs to verify the accuracy of VED's operating budgets and construction activities.[290] The DPS also notes that MWIP reports would have reflected these transfers, and these reports are generated and reviewed by Stamford. The home office would have noted such a large transfer.[291]

The Department has also demonstrated that there was, and is, significant interaction between VED and the Stamford corporate offices.[292] It is quite clear from the evidence in the record that Citizens' corporate office has had a significant influence on VED accounts and policies over the years. We struggle to understand how Citizens can assert that VED operates on a "stand-alone" basis -- accounts and accounting functions are, in fact, interrelated; there is significant management oversight and input from Stamford; and Stamford has directed transfers within VED accounts. Since the record shows that interaction between the corporate and division entities is extensive, we conclude that the oversight procedures that we order in Part Two, Subpart III(B) should include regular review of these interactions, particularly in any accounts or accounting procedures that involve both Stamford and VED.

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289. O'Brien 1/24/97 pf. at 2-4, 7-8; Citizens Brief 4/7/97 at 29.
290. Exh. CUC-RLOB-7 at 7.
291. DPS Brief 4/7/97 at 100.
292. DPS Reply Brief 4/18/97 at 32.

We note that the lines of accounting responsibility lead up to Mr. Livingston Ross, Citizens' corporate Controller, and that Mr. Ross is currently in the process of reviewing Citizens' accounting policies and procedures. We cannot help but noting that Mr. Ross signed the attestation to the VED 1992 FERC Form 1. There is ample evidence in this proceeding that a review of Citizens' books for 1992 shows that the Company's records are not fully consistent with the FERC Uniform System of Accounts. We can thus take no comfort that the oversight and development of the Company's accounting policies that are now under Mr. Ross's supervision will be adequate to restore appropriate accounting procedures.

L. The Company's Management Practices

883. The Company's management of its operations in Vermont is seriously flawed. Notably, it has failed to keep accurate accounts, develop appropriate accounting systems, perform proper least-cost analyses, comply with all regulatory requirements, and organize its VED and corporate management with clear lines of authority and responsibility. The Company's management practices have been imprudent. Findings 884-945, below.

1. Mismanagement of Accounting

884. Citizens mismanaged its books and accounts, which resulted in inaccurate records, and discrepancies between accounts, and made accurate determination of costs of particular projects difficult if not impossible. *See*, findings Part Two, Subpart II(K) above.

885. Citizens' DSM accounts cannot be relied upon for ratemaking and other purposes. See, findings Part One, Subpart III(D)(1).

886. From 1987 until recently, Thomas Petit was the Office Manager and Senior Accountant of the VED. Petit pf. 8/20/96 at 1; tr. 3/18/97 at 61-62 (O'Brien).

887. Prior to recent changes in Citizens' management structure, Mr. Petit reported to Mr. Bailey. Tr. 12/2/96 at 256-257 (Petit).

888. As of December 2, 1996, Mr. Petit was not certain to whom he reported. Tr. 12/2/96 at 254-256.

889. Citizens' corporate offices provide to VED a manual of Company policies and procedures to be followed. This manual is referred to as the "Red Book." All of the

Company's accounting and associated policies are supposed to be contained in the Red Book. Tr. 12/2/96 at 183.

890. The Red Book is badly outdated. Mr. Petit, who was the VED Office Manager and Senior Accountant, testified:

> If you look at it, you can see that many of the policies in there are written that tend to follow the era that things didn't get updated very often, before there were computers and such. They would show a form that people had been using for 50 years.
>
> Well, certainly in the last 20 years things have moved a lot faster. The red book pretty much has been outdated because we use all different methods in there. So, in terms of using the red book, if someone were to ask me what the procedure is, I would tend to flip to the page to see what it is, to see if it's even pertinent or not. Sometimes I might say; well, I have my idea how it's supposed to work there. It's being done differently. But the philosophies being stated there, you -- it's not useful to say, "This is the form," because it might have been ten years since somebody used that form.

Tr. 12/2/96 at 183 (Petit).

891. One example of the unreliability of the outdated information in the Red Book is its treatment of blanket I.O.s. Mr. Petit was uncertain of the Company's policy on use of blanket I.O.s. He testified:

> If it's over $10,000, we are supposed to have—the reason I'm kind of hesitating on that is that I have heard that but I don't know if it's a stated policy because it comes out of the red book, which has been wholly supplemented over time, so I don't know if we have a firm policy on it.

Tr. 12/2/96 at 180 (Petit).

892. The Red Book also includes non-accounting policies. These other policies also tend to be outdated. For example, the Red Book requires that when the VED purchases an automobile for the district manager, the automobile is supposed to be a Chevrolet Vega. Tr. 12/2/96 at 185 (Petit).

893. Citizens does not provide the VED with any other single source for determining corporate policies with respect to accounting and bookkeeping. Tr. 12/2/96 at 185 (Petit).

894. Citizens' corporate offices conduct periodic reviews, called "Blue Print Reviews," of the Company's operating properties, including the VED. The Blue Print Review should have detected the problem of the outdated nature of the Red Book. Kiener pf. reb. 9/23/96 at 10-11; tr. 12/3/96 at 38-39.

Discussion re Mismanagement of Accounting

Extensive evidence submitted by the parties to this proceeding, including Citizens, demonstrates that Citizens has been remiss in keeping its books and records in order:

- The Company has made it a practice to transfer costs between Improvement Orders, a practice which in 1992 increased plant-in-service during a test year for ratemaking purposes.
- Citizens incorrectly closed costs incurred in 1991 to plant-in-service in 1992.
- Regulators have not been able to obtain adequate documentation to substantiate the costs which were charged from the SAO home office to VED.
- It has not kept its accounting system so that information is readily available to regulators.
- The Company has used certain accounts for purposes for which they were not intended.
- Costs were capitalized when they should have been expensed.
- Unpaid bills were accrued when they should have been credited to a liability account.
- Clearing accounts normally used for small, miscellaneous costs were used to record significant cost items.
- Blanket orders usually used to record costs for jobs of short duration were used for major projects over extended periods of time.
- Citizens has failed to appropriately account for its plant records and has not kept its accounting system in conformity with the FERC Uniform System of Accounts.
- Citizens' primary manual of accounting and non-accounting policies and procedures, the Red Book, is outdated to the point that Company officials do not follow it.

The record is replete with other instances of questionable accounting practices. These irregular accounting practices and procedures have gone on for years. These and similar irregularities, in other cases involving Citizens both here and in other regulatory forums, have been brought to the attention of Citizens' management. The Company, in many cases, has conceded these accounting defects, yet there is no evidence that the Company and its officers, at both VED and the corporate office, have taken steps to bring these practices into conformity with generally accepted principles of accounting.

We conclude, based on this record, that Citizens has been imprudent in the management of its accounts, its accounting procedures, and its accounting practices. We take

little comfort in the Company's present promises that this performance will suddenly improve. We must provide assurance to the ratepayers of this state that the Company's rates are based upon proper accounting practices. Thus, we find that Citizens must be subject to strict regulatory oversight during the period of probation that we order below.

2. Failure to Exercise Responsibility for Least-Cost Planning

895. Citizens failed to perform societal least-cost planning analyses prior to the work on the following projects: the Island Pond to Bloomfield line, the substantial changes to the facilities as approved in Docket No. 5331, and the reconstruction and relocation of the H. K. Webster and Burton Hill substations. *See*, findings in Part Two, Subpart II(E) above.

896. Citizens has not implemented formal least-cost planning for its transmission and distribution system. In so doing, Citizens violated the terms of the memorandum of understanding that it entered into with the Department in 1990 in which the Company agreed to implement formal least-cost planning for its transmission and distribution system. *See*, findings Part Two, Subpart II(E)(2) above.

897. Citizens has not applied least-cost planning principles to redesign its DSM programs and correct for identified problems. See, findings Part Two, Subpart II(J)(1)(b), above.

Discussion re Failure to Exercise Responsibility for Least-Cost Planning

The utilities of this state are under an obligation to undertake societal least-cost planning analyses for their systems in general and specifically for significant projects or purchases.[293] There is a well-founded and documented rationale for this requirement. It provides reasonable assurance to ratepayers and the public that the alternative chosen for a given project is the least-cost choice for society, given the information available to the

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293. The Company's obligation to conduct least-cost planning is directly required by Vermont law. 30 V.S.A. §§ 218c and 248. In addition, this Board has made clear in Docket No. 5270 (and reiterated in other orders subsequent to that time) that regulated utilities must integrate least-cost planning principles into all aspects of the utility business. This requirement is specifically applied to transmission and distribution facility investments in the Department's Twenty-Year Electric Plan, adopted pursuant to 30 V.S.A. § 202(b).

decision-makers. Put another way, the results of a least-cost analysis show that all reasonable alternatives have been considered and that cost-saving opportunities have not been overlooked. Any significant project for which a thorough least-cost analysis has not been done risks imposing avoidable environmental impacts and/or costing ratepayers more than it otherwise should.

Citizens has shown a pattern of treating the least-cost planning process with indifference. It has failed to provide the resources necessary to carry out least-cost planning, it has built major projects without the benefits of a least-cost plan, and it has neglected to engage in least-cost planning for its T&D system, as it had agreed to do. The Company has acknowledged its failure in this regard.

The Company's inadequate least-cost planning efforts are directly attributable to a failure to exercise proper management oversight. Prudent and proper utility management must ensure that a Company understands the legal obligations that apply to it and ensure that employees act to meet those obligations. Here again, the Company asks us to believe that it will perform better in the future. We cannot accept this pledge without the independent assurance that outside oversight would provide. We set out the terms and conditions by which ratepayers will have this assurance in Part Two, Subpart III(B)(2), below.

3. Failure to Implement Cost-Effective DSM Programs

898. Citizens' DSM programs fell significantly short of its energy savings projections in 1994, 1995, and 1996. In light of this performance, the Company cut back its implementation activities drastically. See, findings Part Two, Subpart II (J)(1)(b), above.

899. Citizens failed to redesign its DSM programs according to the principles of least-cost planning and to correct for identified problems. *Id*.

900. Citizens has consistently failed to provide site-specific analyses of fuel-switching opportunities for its customers, in accordance with the terms of its Board-approved programs. Moreover, Citizens has claimed energy savings for fuel-switches that did not occur as a consequence of its programs. *Id*.

901. Citizens has failed to adequately monitor and manage its DSM programs. *Id*.

Discussion re Failure to Implement Cost-Effective DSM Programs

As we concluded in Part Two, Subpart II(J), Citizens has failed to meet its statutory obligations and to comply with previous Board Orders to deliver cost-effective energy efficiency programs to its customers. We also concluded that the failures in this area constituted imprudence by Citizens. These failures are directly attributable to Company management, which bears the responsibility for ensuring compliance with applicable requirements. The evidence reveals that management did not comply with these requirements, and did not put adequate Company resources to the task.

4. Regulatory Practices

902. Citizens has failed to obtain necessary Section 248 approvals for its revisions to the 120 kV transmission line between Derby Line and Richford, for its reconstruction of the H. K. Webster and Burton Hill Substations, and for the Island Pond-to-Bloomfield line. *See*, findings Part Two, Subpart II(A) above.

903. Citizens' management has failed to implement procedures reasonably designed to promote compliance with regulatory requirements. *See*, findings Part Two, Subpart II(D) above.

Discussion re Regulatory Practices

Citizens has demonstrated an attitude of resistance toward regulatory requirements and regulatory agencies, has failed to implement procedures reasonably designed to promote compliance with regulatory requirements, and has therefore been imprudent. For the reasons we set out in the previous two subsections, the imprudence flows directly from Citizens' management.

5. Service Quality

904. Citizens' record of power outages has improved over the past six years. Guyette pf. at 84.

905. According to customer surveys conducted by Citizens, customer satisfaction with the VED decreased from 1994 to 1995. Finding 190.

906. Citizens cancelled its 1996 customer and employee surveys of VED operations. Finding 191.

Discussion re Service Quality

Citizens' outage record improved during the first half of this decade. This is an important achievement. At the same time, however, the general customer satisfaction with the Company has declined, for reasons that are not altogether clear on this record. The comments of the public during the public hearings reveal many concerns that Citizens' customers have with the Company, such as service quality, stray voltage, Citizens' disconnection policies, and the Company's attitude toward Vermont laws. The types of problems vary somewhat with the service area; outages were less of a concern in the Newport area than in Grand Isle. Members of the public also expressed some areas of satisfaction with Citizens, in particular, the Company's response time and the quality of jobs Citizens provides to the local economy. A number of people spoke about the benefits of having the Company remain as their provider.[294]

On this record, we can reach no final conclusion about the overall quality of Citizens' service. The Department notes its concerns about Citizens' record of customer complaints.[295] Members of the public have expressed concern, as well as satisfaction, with certain aspects of the Company's performance. There is evidently room for improvement, and we expect the Company to take all necessary steps to do so. In particular, we expect the Company to respond to the specific issues raised by its customers during the public hearings.

Service quality obviously has many aspects. Although we reach no conclusion as to the Company's performance on the traditional indicia of service quality, we remain concerned about other aspects of the Company's delivery of energy services to its customers. In particular, elsewhere in this order, we consider the quality and effectiveness of the Company's demand-side management programs, and we note a number of serious deficiencies with them. To the extent that energy efficiency measures provide not only real cost savings but also enhanced energy services for customers, it is incumbent upon the Company to strengthen its efforts in this regard.

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294. Tr. 10/15/96 and 10/28/96, generally.
295. DPS Brief 4/18/97 at 4-5.

6. Funds Due DPS

907. Starting in July, 1993, Citizens carried a credit balance of $300,139 in Account 232.5, related to an agreement between Citizens and the Department regarding Department sales of power to eligible customers. Citizens acknowledged that the money was not the Company's, but failed to pay the Department when presented with a bill on July 29, 1996. Citizens' rationale for not paying the July 29 bill was that it was not a "legitimate" bill. Avery pf. reb. 9/23/96 at 2-4; tr. 11/1/96 at 66-69 (Avery); *see also* findings 31-36, above.

Discussion re Funds Due DPS

Along with the problems detailed in these and other sections of the Order, another troubling symptom of mismanagement at the Company was revealed during these proceedings: the Company's acknowledged failure to remit payment to the Department for power and energy delivered to, and paid for by, Citizens' residential customers. The Company enjoyed the use of the money as a cost-free source of capital for several years, and was unable to present a reasonable excuse for not promptly returning this money to the Department, instead merely recounting that the Company deemed the claim not "legitimate." Citizens' claim that the bill for $300,139 was not legitimate is perplexing, and suggests a truculence on the part of management that is inconsistent with fair business practices.

7. Previous Investigations and Findings

a. Conduct in Prior Regulatory Proceedings

908. In 1968, the Board issued an Order in Docket No. 3020, which had been opened to investigate a petition by Citizens for a redetermination of the billbacks it had been charged in a prior proceeding. In its Order, the Board found that:

> The investigation and preparation of the case for the public was significantly enlarged because of serious difficulties that Zinder and counsel for the public encountered in obtaining needed information. Citizens delayed in supplying much important information that was requested of it. Some requested information was never supplied. An extensive audit of the mutual service account in the home office of Citizens became necessary to determine what charges therein were properly allocated to Vermont operations. Only those expenses which are not identifiable with a particular operating division of Citizens are supposed to be charged to the mutual service account.

> Nevertheless, the audit disclosed that substantial expenses unrelated to Vermont operations were improperly charged to the mutual service account.

Docket No. 3020, Order of 9/16/68 at 10-11, fn. 46.

909. In an earlier Order in Docket No. 3020 (dated February 7, 1964), the Board cited to a decision by the U.S. Court of Appeals for the Second Circuit (dated June 24, 1963) on Citizens' proposed purchase of the Prouty water rights. Citizens had an option to purchase the water rights for $300,000. It did not exercise that option and instead began condemnation proceedings at the PSB. The owners of the water rights appealed in Federal Court arguing that the PSB did not have jurisdiction. The Vermont Supreme Court ruled that the PSB had no jurisdiction on this issue because Citizens had no license from the Federal Power Commission ("FPC," later reorganized as the FERC) nor did it have a CPG from the Board. The FPC ordered Citizens to apply for a license for future operation. The decision of the U.S. Court of Appeals for the Second Circuit stated:

> Citizens Utilities apparently thought that it was worth the risk of having to pay $300,000 for the property to attempt to avoid having to secure the license required of it by federal law, with the attendant federal regulation. It is hardly reasonable to suppose that Citizens Utilities is surprised by the outcome of this litigation and that it did not realize in 1956 that it could have avoided the possibility of a sale at $300,000 at least by instituting parallel proceedings with the FPC. The mistaken gamble is tantamount to a deliberate rejection of the condemnation alternative.

In light of this finding by the Second Circuit, the Board stated:

> The action taken by Citizens in this matter clearly appears to have been an attempt to evade the requirement of filing an application with the FPC for a license with the hope of avoiding the attendant regulation. . . . Management personnel of Citizens in Stamford are highly paid, experienced and intelligent. But in this instance they took a deliberate, unnecessary and callous gamble . . . .

Exh. DPS-SL-2, Tab 216 at 9-10.

b. Previous Failure to Obtain Permits

910. In 1994, the Board penalized Citizens for its failure to obtain prior approval for a project to convert a 12.4 kV distribution line to a 46 kV transmission line and relocate a

substation in order to serve a large commercial customer (Jay Peak Ski Area). Docket No. 5625, Order of 3/28/94 at 24.

911. During the Jay Peak investigation, Citizens considered informing the Department of the construction of the Island Pond to Bloomfield line but chose not to do so after consultation with counsel. Avery pf. 8/20/96 at 21; tr 11/1/96 at 178-179, 198 (Avery).

c. Failure to Abide by Agreements

912. In Docket No. 5426, Citizens entered into a memorandum of understanding with the DPS in which the Company agreed to implement least-cost planning for transmission and distribution facilities. The Company did not abide by the terms of that agreement. Steinhurst pf. 5/15/96 at 13, 38-39; Love pf. 1/24/97 at 7; *see*, findings Part Two, Subpart II(E)(2) above.

d. Previous Accounting Discrepancies

913. In 1963, the Board hired H. Zinder and Associates to investigate Citizens' accounting practices. In its report of October 19, 1965, Zinder concluded that certain accounting and reporting documents supplied by the Company had been inadequate, misleading, and possibly false. The principal causes of the deficiencies identified in the report were the manner in which the Company charged certain expenditures to its home office account, a portion of which was then allocated to Vermont, the lack of original documentation to support charges between the home office and the Vermont operations, methods of tax treatment, and the concealment of revenues from energy sales that were diverted to the home office. Exh. Board-4 at 2.

914. In a 1972 letter from the Board to the FPC, the Board stated: "At the present time, Citizens is making certain accounting entries which are flatly inconsistent with the rate making determinations of the Board." Exh. Board-5 at 1.

915. In 1973, the FPC submitted to the Board a summary of its review of Citizens' books and records. That summary found, in part, that the Company had continued accruing "interest during construction" on several improvement orders *after* the work had been completed. The FPC recommended that after completion of a construction project, interest

and other overheads should no longer be charged to that project. Exh. Board-6, Sch. 3 at 1 of 9.

916. In 1978, FERC submitted to the Board a summary of its review of Citizens' books and records. One of its findings was that Citizens continued to accrue allowance for funds used during construction ("AFUDC") beyond that date which the Company established to cut off AFUDC. FERC made a recommendation that the Company implement procedures to insure that AFUDC would not be computed on items which are immediately ready for service. Another finding was that the Company continued to include contributions-in-aid-of-construction ("CIAC") in an account which had been eliminated by FERC, rather than crediting CIAC directly to the plant accounts as ordered. Exh. Board-7, Sch. 4 at 5.

Discussion re Previous Investigations and Findings

The allegations we examined in this docket are not the first instance in which Citizens' management and accounting practices in Vermont have been called into question. To the contrary, the record shows a number of events over the past 35 years in which questions have been raised that directly implicate Citizens' management.

In 1963, the Board found it necessary to hire an independent consultant to look into accounting irregularities at Citizens. The consultant concluded that certain of the Company's accounting practices were questionable. The report recommended various changes be implemented, but they were not imposed by the Board at that time.

The similarity of the problems in that case to the accounting problems we examine in these dockets is apparent.

In 1968, the Board found Citizens to have been tardy in supplying information that was requested by the regulators. Indeed, some information was never supplied. Because of the Company's non-cooperation in that case (Docket No. 3020), an extensive audit of the home office account of Citizens was necessary to determine what charges were properly allocated to Vermont operations.

The similarities between the facts of the instant case and those of the earlier docket is striking. The Company admits that it refused to supply Mr. Laskow and the Department with requested documentation on VED charges from the Company's home office account—

information that it had promised to supply the parties.[296] The Department has accused the Company of frustrating the investigation by providing misleading and erroneous testimony and withholding requested documentation.[297] The Villages note the unusual number of motions to compel in this case, motions that were ultimately granted by the Board.[298]

In 1964, the Company was chastised by this Board for its failure to apply for a necessary license, which the Board found to be a deliberate attempt to evade regulatory jurisdiction. The Vermont Supreme Court agreed with this conclusion.[299]

After reviewing Citizens' accounting records in 1972, 1973, and 1978, the FPC and FERC found various irregularities in Citizens' accounts. The litany of accounting problems discovered by the federal agencies prefigures in many ways the accounting problems that have been uncovered in this proceeding.

In a case of more recent vintage, Citizens was fined the maximum penalty the Board judged it could impose under the law for "its deliberate, avoidable, and undisputed violations of the specific requirements of 30 V.S.A. Sections 229 and 248."[300] In that case, the Board found that Citizens knew, at least as early as 1991 (a year before Citizens began construction of the project), that the particular line would need to be replaced, but it did not file a petition under Section 248 at that time.[301] Citizens acknowledged that it rebuilt the line before obtaining Board approval for the construction.[302]

The arguments that Citizens put forth in Docket No. 5625 to defend its actions are worth repeating here: (1) circumstances forced it to begin construction without Board approval; (2) the magnitude of the Company's transgression was negligible because the 46 kV upgrade differed only slightly from a 12.4 kV rebuild which would not require a permit; (3) the line could have been rebuilt without a permit at 34.5 kV and operated at a distribution voltage and therefore its actions were *de minimis*; (4) it is only the manner in which a line is

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296. Citizens Brief 4/18/97 at 23-24.
297. DPS Brief 4/7/97 at 7; DPS Reply Brief 4/18/97 at 60.
298. Villages Brief 4/7/97 at 3.
299. Tr. 2/6/97 at 136; *Latourneau v. Citizens Utilities Co.*, 125 Vt. 38, 42-43 (1965).
300. Docket No. 5625, Order of 3/28/94 at 1.
301. *Id*. at 11.
302. *Id*. at 24.

operated that triggers § 248 review, not its nominal capacity; (5) the impacts of the construction were minimal compared to the benefits received by customers; and (6) the Company's only motivation in acting without Board approval was "to serve the best interests of its customers."[303] The Board did not find these arguments persuasive.

Nonetheless, Citizens seeks, in the present cases, to excuse its failure to obtain other required permits by repeating many of the same arguments. One defense that the Company reproduces here is particularly disconcerting because it was unequivocally rejected by the Board in Docket No. 5625. Citizens' contention that it is only operation of a line at transmission voltage, not its capacity, that triggers Section 248 review was rejected explicitly.[304] The Company's repetition of that unfounded claim in this proceeding is perplexing at best.[305]

The Company also argues again (this time in defending its rebuild of the H. K. Webster substation) that it was only trying to serve the best interests of its customers. In Docket 5625, we rejected that argument, and do so again here.[306] Although there will often be legitimate customer service objectives for undertaking a project, they cannot excuse the Company from complying with the permit requirements established by law.

When faced with the evidence of Citizens' past transgressions and the repeatedly expressed concerns of this Board over many years, the new Vice President of Citizens' Public Services Sector agreed that the Company has been "notoriously deficient in systems, information systems, standardized procedures, and the like." Nevertheless, rather than demonstrating concrete behavioral changes, of which there has been no sign (except for the very recent changes discussed in the next section), the Company offers little more than an assertion that it has corrected its flaws.[307]

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303. *Id*. at 24-27.

304. The Board stated, "[w]e find that the statute contemplates no exceptions for the reasons suggested by Citizens." *Id*. at 27, fn. 34.

305. *See*, Citizens Brief 4/7/97 at 116-119.

306. Docket No. 5625, Order of 3/28/94 at 13.

307. Tr. 2/16/97 at 153, 154-163 (Love); Citizens Brief 4/7/97 and Citizens Reply Brief 4/18/97, generally.

In the current proceeding, we have found that serious and extensive failures exist in Citizens' management and operations, and have determined that strict regulatory oversight and a significant reduction in the allowed return on equity are necessary responses. That the problems we see today were preceded by many similar problems only confirms the reasonableness of these responses.

8. Recent Management and Personnel Changes

917. Until July, 1996, Thomas Bailey was the Vice President and General Manager of the VED. Mr. Bailey reported to James Avery. Beginning in December, 1990, Mr. Avery had charge of the Company's electric systems and, since June, 1994, its gas operations as well. Mr. Avery reported to Daryl Ferguson, the President of Citizens. Mr. Bailey and Mr. Avery were the two officers responsible for the management of the VED. Love pf. reb. 1/24/97 at 10-11; Avery pf. 8/20/96 at 1-2.

918. Mr. Bailey was relieved of his duties at the VED in July of 1996. Citizens has now replaced Mr. Bailey with John Lass. Mr. Bailey continues to work for Citizens in another capacity. Exh. DPS-WS-10 at 39; tr. 1/7/97 at 210 (Avery); Love pf. reb. 1/24/97 at 10.

919. Mr. Petit, VED's Office Manager and Senior Accountant, resigned his position effective mid-January, 1997. Tr. 12/2/96 at 107 (Petit).

920. In early August 1996, Citizens removed the VED from Mr. Avery's oversight. As of that date, the VED was directly under the supervision of Daryl Ferguson, Citizens' President. Exh. DPS-WE-10 at 33.

921. Citizens terminated its employment of Mr. Avery on November 8, 1996. Mr. Avery had testified in the current proceeding on October 31 and November 1, 1996, and was scheduled to resume his testimony on November 12, 1996. Tr. 10/31/96; tr. 11/1/96; tr. 1/7/97 at 126 (Avery); exh. DPS-Cross-65; *see also* Notice of Continued Technical Hearings, issued 11/7/96.

922. Citizens contends that its reasons for firing Mr. Avery were that even prior to his testimony on October 31 and November 1, "it was apparent that the VED management then in place no longer was effective." Love pf. reb. 1/24/97 at 23.

923. The Company further explained its termination of Mr. Avery as follows:

> In addition, during his oral testimony on October 31 and November 1, 1996, it became apparent that Mr. Avery had not taken seriously his responsibility to prepare fully and present complete, responsive and accurate testimony. That, coupled with the fact that many of the problems that led to the decision by the Department to seek revocation of our franchise occurred while Mr. Avery was responsible for supervising the VED, made it clear that termination was our only option.

Love pf. reb. 1/24/97 at 23-24.

924. On November 11, 1996, Mr. Avery learned that the Company wanted to withdraw his testimony. Tr. 1/8/97 at 48 (Avery).

925. The Company stated that it was troubled by a number of Mr. Avery's statements in his October 31 and November 1, 1996, testimony, including his explanation for not returning the Account 232.5 balance to the Department and his failure to acknowledge that a single person at VED should have been given responsibility for permitting. However, Mr. Avery took the same positions in his prefiled testimony filed on September 23, 1996, and in a discovery response dated January 16, 1996, respectively. Avery pf. reb. 9/23/96 at 2-6; exh. DPS-Cross-19; tr. 2/6/97 at 169-172, 209-211 (Love).

926. Citizens' president, Mr. Ferguson, when asked to enumerate the inaccuracies in Mr. Avery's testimony, stated that Mr. Avery testified that he represented the Company on the VELCO board, when he had already been asked to resign. However, Mr. Ferguson stated that the letter of resignation may not have been received by VELCO at the time of Mr. Avery's testimony. Exh. DPS-WS-10 at 48.

927. Mr. Avery stated that he was directed to resign from the VELCO board by Mr. Ferguson on October 21, 1996. Mr. Avery did not send his letter of resignation to VELCO until November 4, 1996. He testified in Vermont on October 31 and November 1, 1996. Tr. 1/8/97 at 219-220.

928. Company witness Love also pointed to Mr. Avery's failure to attend required witness training as a reason for his dismissal. However, Mr. Avery was unable to attend the witness training because Mr. Ferguson had called him back to the Stamford office. When Mr. Avery was called to Stamford, Mr. Ferguson and Mr. Love knew that he was scheduled for

witness training. Tr. 2/6/97 at 213-214 (Love); tr. 1/7/97 at 111 (Avery); tr. 1/8/97 at 211-213 (Avery).

929. Mr. Avery was promoted several times while at Citizens. His performance evaluations at Citizens were generally positive, and did not reflect serious problems with his management of the VED or his other responsibilities. Exh. DPS-Cross-66; tr. 1/7/97 at 153, 191.

930. Citizens would not negotiate a severance package for Mr. Avery until after he completed his testimony in this proceeding. On November 8 and 9, 1996, a representation was made to Mr. Avery that the Company would be prepared to negotiate with him based upon the performance of his testimony. Tr. 1/7/97 at 117-119 (Avery); tr. 1/8/97 at 114 (Avery).

931. When Citizens fired Mr. Avery, Mr. Love assumed the responsibilities of Vice President of Energy on an acting basis. On January 17, 1997, Mr. Love was named Vice President in charge of Energy and Water or, as presently named, Vice President of Public Services Sector. Love pf. reb. 1/24/97 at 3.

932. Mr. Lass has implemented several operational changes at the VED. Mr. Lass has created a Strategic Management Team, consisting of VED department heads, for the purpose of helping Mr. Lass identify issues and to foster cross-communication between departments. Lass pf. reb. 1/24/97 at 4.

933. Mr. Lass has established a Quality Council, consisting of a cross-section of VED employees. The purpose of the Quality Council is to evaluate and improve processes at the VED, although its specific scope and tasks have yet to be defined. Lass pf. reb. 1/24/97 at 5-6.

934. Mr. Lass plans to add expertise to the VED in the areas of engineering, environmental compliance, and regulatory relations and compliance, either through hiring new employees or retaining consultants. Lass pf. reb. 1/24/97 at 6.

935. Mr. Lass has implemented new procedures for permitting and environmental compliance, including the preparation of an Environmental Compliance Manual by The Johnson Company. The Manual is designed for use by all VED employees who may need to

make a judgment regarding whether a permit is required. Lass pf. reb. 1/24/97 at 8; exh. CUC-JJL-2.

936. The Environmental Compliance Manual includes a flow chart for determining whether distribution line construction requires Act 250 approval. The flow chart does not address whether the construction is in a public right-of-way, whether the construction will change the character of an existing right-of-way, or whether the town involved has subdivision bylaws. A table in the Manual setting forth zoning information by town likewise fails to indicate whether the towns have subdivision bylaws. Exh. CUC-JJL-2 at 4, 5-10.

937. The Manual includes a description of Section 248 jurisdiction. The description does not indicate the primary purpose of a line to be a relevant consideration. Exh. CUC-JJL-2 at 18.

938. Citizens, in conjunction with The Johnson Company, is conducting training sessions for VED staff on state and federal environmental laws. Additional training will be held at least once per year. Lass pf. reb. 1/24/97 at 9-10; exh. CUC-JJL-3.

939. Under Mr. Lass, the VED has retained Power Systems Engineers, Inc., to assist it in least-cost planning. Mr. Lass stated that the VED's progress in accomplishing least-cost planning objectives will be addressed in its Integrated Least-Cost Plan to be filed in July, 1997. Lass pf. reb. 1/24/97 at 10-11.

940. Mr. Lass has revised the Operations and Maintenance budgeting process, such that each department head is responsible for administering the O&M budget for his or her department on a monthly basis. Variances beyond $2,000 or five percent must be explained in a report to Mr. Lass. Lass pf. reb. 1/24/97 at 11.

941. Mr. Lass is revising the VED's capital budgeting process, which will include a Capital Budget Committee to oversee the process. The Committee will examine budget variances each month, with department heads required to explain variances beyond a yet-to-be-determined threshold. Lass pf. reb. 1/24/97 at 12.

942. Since November, 1996, Jeff Christensen of Citizens' Telecom Sector has been on-site at the VED to assist on a range of accounting functions, and to help identify and correct problems with VED accounting records. Lass pf. reb. 1/24/97 at 13.

943. The VED will hire a new accountant, perhaps Mr. Christensen, to replace Thomas Petit. The new accountant will report to Ken Cohen, controller of the Company's new Public Services Companies Sector. Citizens' corporate controller, Livingston Ross, will have ultimate supervisory responsibility on all accounting matters. Lass pf. reb. 1/24/97 at 13.

944. Citizens as a whole plans to revise several of its systems, including its financial and accounting systems. It expects to spend $46 million to change its systems, including $18 to $22 million this year. Love pf. reb. 1/24/97 at 13.

945. The VED is conducting a review of its DSM accounts, conducted by Deloitte & Touche, and has agreed to an audit of its transmission plant accounts. Until the transmission audit has been completed, Mr. Lass has implemented new procedures for the work order system. He has reduced the annual amount for the blanket I.O. to $100,000, and has required all major projects to be broken out into individual I.O.'s. Lass pf. reb. 1/24/97 at 14-15.

Discussion re Citizens' Recent Management and Personnel Changes

Over the course of this proceeding, there have been a significant number of changes in the personnel holding positions of substantial responsibility for VED operations: Mr. Bailey has been removed as General Manager of the VED although he is still employed by the Company; Mr. Petit has resigned from the VED; and the Company fired Mr. Avery in November, 1996, in the midst of this proceeding. Generally, while we do not want to comment on personnel changes that are internal to company management, here the personnel changes do reflect on Citizens' ability to assign competent people to positions of authority and responsibility, and its ability to maintain a stable management structure and team.

Mr. Avery's dismissal was striking, coming as it did in the middle of the hearings in this Docket—indeed, in the middle of his testimony. We do not pass judgment on whether his dismissal was appropriate, but we must note our concerns that the reasons advanced by the Company for doing so are, to say the least, unpersuasive. Citizens' contention that it was troubled by certain statements Mr. Avery made during hearings in October and November of 1996 is surprising, since those statements were entirely consistent with the positions that he set out in his written testimony and discovery responses, filed well before the hearings. The reason given by Citizens' President (that Mr. Avery failed to tell us that he had resigned from

the VELCO Board) does not seem significant in light of the evidence. Moreover, the statement that Mr. Avery's failure to attend mandatory "witness training" was additional grounds for his firing is altogether unconvincing, in light of the particular circumstances surrounding his absence from the training session. In addition, Mr. Avery's overall performance evaluations at the Company suggest performance different from that cited by the Company when it terminated his employment. Finally, Citizens' refusal to resolve Mr. Avery's severance package until after his testimony was concluded creates the impression of undue pressure concerning the content of that testimony. We conclude that the Company's treatment of Mr. Avery's testimony before the Board is a manifestation of a lack of clear accountability for the VED and a lack of responsiveness to the regulatory process in Vermont.

In the area of environmental management, Citizens has only recently begun to implement measures which, it says, will promote compliance with environmental permitting and other regulatory requirements. In its brief, the Company argues that it has made substantial progress in its permitting and compliance procedures.[308] It states that "[i]f there is a question regarding the potential applicability of Section 248, Board and Department staff will be contacted."[309] The Company continues:

> With respect to necessary permits and approval, employees are clearly encouraged to raise questions with their superiors and with counsel so that all doubts are resolved prior to commencing construction. The theory of asking before doing is clearly appropriate based on what has occurred.
>
> A change of attitude and the use of the Compliance Manual represents significant progress. It indicates that it is highly likely that permitting decisions will be made with appropriate thought and deliberation, and that doubt will be resolved through discussion internally and with regulators prior to taking any action. This is essential if the Company is to succeed in obtaining the permits that are required.[310]

Yet, later in that same brief, in the context of its revisions to the 120 kV line approved in Docket No. 5331, Citizens argues:

> It would be poor policy for this Board to impose regulatory requirements which would discourage companies from making changes which would benefit the environment. . . . If a company is compelled to amend its CPG to receive

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308. Citizens Brief 4/7/97 at 19-20.
309. Citizens Brief 4/7/97 at 18, citing Lass pf. reb. 1/24/97 at 9.
310. Citizens Brief 4/7/97 at 19-20.

> Board approval for each change that potentially impacts any criteria in §248, many beneficial changes would go unmade.[311]

To illustrate its point, Citizens discusses the requirement of our Order in Docket No. 5331 that poles be set in the winter, and the Company's decision to instead place the poles by helicopter in the summer:

> If that change were to require an amendment to the CPG—and the delay that would result—the clear incentive would be to employ the inferior option only because it would obviate the need for further regulatory proceedings. Not only would the environment have been affected but Citizens would likely have incurred additional costs to remobilize its construction team in winter.[312]

Thus, early in its brief, the Company vows that it has a new commitment toward regulatory compliance, including resolving with regulators any doubts before proceeding with construction. Later in the same brief, Citizens argues that it was acceptable for it to violate an express condition of our Order in Docket No. 5331 without seeking approval. Needless to say, Citizens' statements create for us grave reservations about the sincerity of the Company's alleged new commitment to regulatory compliance.

Our concern is not allayed by the significant errors and omissions in VED's new Environmental Compliance Manual. The Manual fails to advise the reader that in determining Act 250 jurisdiction over distribution lines, relevant factors include whether a public right-of-way is involved, whether the character of an existing right-of-way will be changed, and whether a town has subdivision bylaws.[313] Nor does the Manual instruct the reader to consider the primary purpose of an electric line, which is a key factor in determining Section 248 jurisdiction.[314]

The Company's employment of The Johnson Company to advise Citizens' employees of permitting requirements does not appear to have resolved Citizens' problems in this area. That firm's work in the Manual, along with its testimony on permitting issues presented in this

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311. Citizens Brief 4/7/97 at 72. This argument ignores the fact that under Section 248(j), projects or project amendments with limited environmental impacts can receive regulatory approvals on an expedited basis without hearings.

312. Citizens Brief 4/7/97 at 72.

313. 10 V.S.A. § 6001(3); Environmental Board Rule A-3.

314. General Order 51.

proceeding, suggests that it may not have sufficient experience in utility permitting matters to provide comprehensive advice to the Company on these issues.

Environmental permitting is not the only area in which we, unfortunately, must question the meaningfulness of the Company's management changes. In this very proceeding, after we heard apparently sincere protestations of reform from high-level corporate officials, the Company continued to demonstrate a policy of resistance to legitimate regulatory requests. After agreeing to supply Department consultant Laskow with requested financial information, the Company's Vice President of Corporate Regulatory Affairs, with the knowledge of senior management, including the Company's General Counsel, unilaterally decided not to provide that information to Mr. Laskow, and never even informed the Department of this decision. We only became aware of this decision at the very end of this lengthy proceeding -- after the Company's assurances that it had changed its posture towards regulators. This conduct creates grave doubts about the Company's claim that, under the new leadership at VED:

> . . . unequivocal candor is the rule -- not an option -- in dealing with everyone: our customers, our regulators, governmental officials, members of the public, and each other. Additionally, we have to be sensitive to the needs of others we deal with and understand that certain things are important to others that might not be important to us. A clear example is that regulators may want to know lots of information that we think is unimportant. Nonetheless, we have to be responsive to inquiries from regulators and others because being attentive and responsive is part of displaying candor. In a word, we want to establish a relationship that unmistakably indicates that citizens as a company is open and direct in its dealings, that is aware of its obligations to its customers and the State, and that it warrants respect for the manner in which it discharges its obligations and delivers service.[315]

While these are admirable sentiments, Citizens has proven unable to translate them into meaningful action, even in the context of this very case in which its franchise is at stake. We are unable at this time to conclude that Citizens' management as a whole has a genuine desire to correct its serious deficiencies in complying with regulatory requirements and dealing forthrightly with its regulators.

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315. Love pf. reb. 1/24/97 at 14 (emphasis in original).

Conclusion re Management Practices

The record illuminates a series of management failures that, when taken together, lead us to conclude that Citizens' approach and methods of running its business in Vermont are imprudent. The consequences of this mismanagement are not entirely quantifiable, but undoubtedly opportunities to reduce costs, increase efficiencies, and improve services have been lost. In the end, both Vermont's ratepayers and the Company's shareholders suffer for those failures. For these reasons, we have decided to impose upon Citizens the regulatory probation and a significant reduction in the allowed return on equity, as detailed in Part Two, Subpart III, below.

M. Procedural Issues

In this Part Two of our Order, we have included findings regarding the Number 11 Dam and the Company's DSM programs. Because the evidence on those issues was heard by the Hearing Officer, we have read the record relevant to those issues in order to make our findings.

We must resolve two outstanding procedural issues: a Department request to increase the allocation for its accounting consultant, and a motion by Vermont Marble seeking sanctions against Citizens for its failure to ensure the timely return of its witness, James Avery, to complete his testimony.

1. DPS Request to Increase Allocation

On March 27, 1996, after petition from Citizens under 30 V.S.A. § 21(a) and after a hearing to review and determine the reasonableness of the accounting costs to be incurred by retaining the services of Seymour Laskow, the Hearing Officers[316] determined that the costs that the Department proposed at that time to allocate to Citizens were both necessary and reasonable. In that Order, the Hearing Officers required the Department to come before the Board for a revision of this allocation of costs if the Department proposed to exceed its

316. At that time, two Hearing Officers were assinged to this proceeding.

estimate of $100,000.[317] The Hearing Officers also noted that in that Order they were not deciding the issue of whether Citizens could pass the costs of the allocation on to its Vermont ratepayers.[318]

Later, on August 13, 1996, the Department requested that the Board authorize an additional $100,000 over and above the $100,000 authorized in the March 27, 1996, Order. Citizens did not object to that request. After inquiring of the DPS at the September 5, 1996, status conference, the Hearing Officer approved the $100,000 increase, for a total approved allocation of $200,000.[319]

On January 17 and 24, 1997, the Department filed a request for a further $100,000 increase in the allocation. Finally, on March 20, 1997, the Department requested another increase in the allocation for Mr. Laskow, such that the total amount of Mr. Laskow's contract to be billed back to Citizens would be $380,000. Citizens has not contested these proposed increases, although the Company has reserved its right to argue for inclusion of these allocated costs in rates.[320]

We reluctantly approve these additional increases.[321] The total cost of Mr. Laskow's investigation has greatly exceeded that which the Department originally represented to us. We recognize that the cost has increased at least in part due to the difficulty of Mr. Laskow in obtaining reliable responses to his information requests, and to the disarray in the Company's books which we described earlier in this Order. Nonetheless, the cost of Mr. Laskow's investigation has escalated exponentially, and raises concerns about the level of direction and oversight that the Department has given Mr. Laskow. While we conclude that the increased costs here can be attributed to the trying circumstances presented by a review of Citizens'

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317. Order of 3/27/96 at 4-9.

318. *Id.* at 8.

319. Status Conference Memorandum and Procedural Order, 9/12/96, at 9.

320. The inclusion of these costs in rates is addressed in Part One, Subpart V(G)(2) of this Order.

321. The Department believes that, notwithstanding the prior Board Order requiring Board approval for revisions to the allocation amount, no Board approval is necessary for these increases in the allocation, because the Company has not objected under the provisions of 30 V.S.A. § 21. We need not decide this issue, because we have approved the increases.

accounts, we caution the Department that in the future, in allocation reviews under 30 V.S.A. § 21(a) for a more typical proceeding, we not only expect reasonably accurate initial estimates for the Department's allocations, but also will hold the Department accountable for controlling the costs of its consultants.

2. Vermont Marble Motion for Sanctions

On November 15, 1996, Vermont Marble Division of OMYA, Inc. ("Vermont Marble") submitted a Motion for Sanctions. Vermont Marble's Motion requests that the Board require Citizens "to pay the reasonable expenses, including attorney fees, caused by the failure of Citizens to make available its witness, James P. Avery, for continued testimony when and as scheduled." Vermont Marble Motion at 1. The Villages and CVPS joined Vermont Marble's Motion by letters filed, respectively, on November 19 and November 22, 1996. On December 4, 1996, Citizens filed a Memorandum in Opposition to Vermont Marble's Motion.

Vermont Marble requests that the Board sanction Citizens for the failure of Citizens' witness James Avery to appear as scheduled at the November 12, 1996 hearing. After initially testifying on behalf of Citizens at the October 31 and November 1, 1996, hearings, Mr. Avery was scheduled to return to complete his testimony on November 12, 1996. On November 8, 1996, Citizens terminated Mr. Avery's employment. On November 12, ten minutes before he was scheduled to resume his testimony, Mr. Avery sent by facsimile a letter to the Board explaining:

> . . . I feel that I have been placed in a position where I am unable to testify further at this time without consulting separate counsel.
>
> . . .
>
> Unfortunately, since I am at this time no longer employed, and since I am now incurring and would incur significant personal expense and hardship as a result of the actions taken by Citizens, I am unable to appear at the hearing today, November 12, 1996, to resume testifying before the Board.[322]

322. Avery Letter 11/12/96 at 1.

Mr. Avery's letter indicated his willingness to return to Vermont to complete his testimony, after having the opportunity to consult with his own counsel and after having access to the Company's files.

In its Motion, Vermont Marble relies on Rule 16.2 of the Vermont Rules of Civil Procedure, applicable to Board proceedings by Board Rule 2.105. Rule 16.2 provides, in part:

> When a party fails to obey a scheduling order, the court may impose the sanctions provided in Rule 37(b)(2)(B) or (C) or, if the failure is to appear for trial as directed, dismiss the action or enter a default.

Vermont Marble is correct in noting that Citizens failed to present its witness as scheduled. However, we cannot conclude from the circumstances surrounding Mr. Avery's failure to appear that Citizens has here exhibited such egregious behavior that it would be appropriate to impose sanctions.[323] The scheduling of witnesses in our Dockets can be difficult, especially in proceedings such as this with several parties and numerous witnesses. Revisions to schedules are a constant in our practice; the Board always expects parties to cooperate to minimize the inconvenience and additional expense visited by schedule revisions, but inconvenience and expense are sometimes inevitable. While Citizens could have, and probably should have, handled the circumstances surrounding Mr. Avery's termination in such a fashion as to secure his return on November 12, we cannot conclude that Citizens' failure to do so rises to the level of sanctionable conduct as to the scheduling issues raised.[324] Thus, we deny Vermont Marble's Motion for Sanctions.

III. REMEDIES

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323. Citizens' conduct in the termination of Mr. Avery as it reflects on the Company's management is, we believe, a distinct issue, and one which we address in Part Two, Subpart II(L)(8) of this Order.

324. We also agree with Citizens that the additional costs associated with the parties' discovery into the circumstances surrounding Mr. Avery's termination are not attributable to Mr. Avery's failure to appear at the November 12 hearing. Thus, even if it were appropriate to sanction Citizens for its failure to secure Mr. Avery's appearance on November 12, the additional costs associated with the discovery regarding Mr. Avery's termination would not be assessed against Citizens.

A. Findings of Fact

946. Citizens' Vermont Electric Division has repeatedly failed to obtain necessary Section 248 CPGs and amendments to CPGs for significant construction projects in Vermont. Citizens' management has failed to implement procedures reasonably designed to promote compliance with Section 248 and other regulatory requirements. *See*, Findings and Discussion in Part Two, Subparts II(A), (B), (C) and (D), above.

947. Citizens' Vermont Electric Division has repeatedly failed to conduct required least-cost analyses prior to undertaking major investments. Citizens has admitted that it violated the MOU that it entered, and the Board approved, in Docket No. 5426 by failing to implement least-cost planning for its transmission and distribution system. Citizens' management has failed to implement procedures reasonably designed to promote compliance with least-cost planning and analysis requirements. *See*, Findings and Discussion in Part Two, Subpart II(E), above.

948. Citizens' Vermont Electric Division has repeatedly failed in its obligation to deliver cost-effective demand-side management services to its customers, and has failed to adequately administer and monitor its DSM programs. Citizens' management has failed to implement procedures reasonably designed to promote compliance with DSM obligations. *See*, Findings and Discussion in Part Two, Subpart II(J), above.

949. The books and accounts for Citizens' Vermont Electric Division are inaccurate, unreliable, and incomplete. Citizens' management has failed to implement policies and procedures reasonably designed to assure the competence of the VED books and accounts. *See* Findings and Discussion in Part Two, Subpart II(K), above.

950. Citizens' Vermont Electric Division was imprudent in its construction and maintenance of one of its generation facilities, the Number 11 Dam. As a result of the Company's imprudence, the Number 11 Dam failed. *See*, Findings and Discussion in Part One, Subpart III(A)(11), above.

951. Citizens has demonstrated a repeated pattern of resistance and non-cooperation in the regulatory process. *See*, Findings and Discussion in Part Two, Subpart II(L), and Subpart II generally.

952. Citizens' management structure has been characterized by unclear lines of responsibility and authority, a failure to communicate Company policies and procedures to appropriate personnel, and a failure to provide necessary training and guidance to employees. *See* Findings and Discussion in Part Two, Subpart II(L), and Subpart II generally.

953. Citizens' corporate offices have failed to implement policies, procedures, systems, and management structures necessary to reasonably assure that the Vermont Electric Division complies with applicable regulatory requirements and prudent utility practices. Findings 946-952, above.

954. We find that revocation of Citizens' Certificate of Public Good for its Vermont service territory is justified. We conclude, however, that revocation, while justified, is not absolutely necessary at this time, because we believe that the Company's management and operational deficiencies, while severe, are such that they can be compensated for, and ultimately corrected, through strict regulatory oversight. Findings 946-953, above.

955. Michael Love is Vice President of Citizens' Public Services Sector. Thus, he is the head of the sector to which VED reports. Love pf. reb. 1/24/97 at 1; tr. 2/6/97 at 134 (Love).

956. The Chairman of this Board asked Mr. Love which of the following three options would be the most appropriate resolution of Docket No. 5841: the Department's proposal of revocation of Citizens' franchise; acceptance of the Company's claim that it has made meaningful changes; or "probation." Mr. Love responded:

> Of the three options that you set forth, the one that I think is obviously the most appropriate is the probation option. And first, I want to explain why, and then what I would envision it would entail.
>
> Pulling our certificate, in my feeling, would not give proper recognition to the company having come forward and acknowledged the mistakes it's made and taken some steps. On the other hand, just us coming in and saying; trust John Lass, trust Mike Love, doesn't do it either because there's ten years of disharmony, at least, between the Department and the company, and to a certain extent the Board.
>
> So, then the question becomes probation. And I think that for the probation to be effective, it has to be painful for the company but still give us at least an opportunity to breathe.

Tr. 2/6/97 at 119-122 (Love).

957. Mr. Love provided recommendations for items to include in the terms of probation. His recommendations addressed permitting, accounting, demand-side management, rate levels, least-cost planning, and the consequences of a failure by Citizens to abide by the terms of probation. Tr. 2/6/97 at 122-128, 227-232 (Love).

958. With respect to permitting, Mr. Love recommended that the Company be fined for its failures to obtain necessary permits, including the permitting failure identified in the internal Review Team report, and that the Company provide an explanation to the Board and Department in advance of any capital expenditures. Tr. 2/6/97 at 122-123 (Love).

959. With respect to accounting, Mr. Love recommended that the Company be required to pay for a total transmission plant audit of Citizens' books, and that any necessary rate adjustment that is identified be implemented immediately. Mr. Love also recommended that specific accounting requirements be imposed as part of the terms of probation. Tr. 2/6/97 at 124, 227 (Love).

960. With respect to demand-side management, Mr. Love recommended that Citizens be required to commit a higher percentage of its revenues to DSM than any other Vermont utility. Mr. Love proposed three and one-half percent as an appropriate percentage. Tr. 2/6/97 at 124-125 (Love); Love pf. reb. 1/24/97 at 11.

961. Further with respect to demand-side management, Mr. Love recommended that Citizens be penalized a substantial amount—over one million dollars—if it failed to meet its DSM goals in 1997, 1998 and 1999. Tr. 2/6/97 at 125 (Love).

962. With respect to rate levels, Mr. Love recommended that there be a reduction in the Company's existing rates. Tr. 2/6/97 at 126-127, 228-231 (Love).

963. With respect to least-cost planning, Mr. Love recommended that the Company be placed on notice that none of its future capital expenditures will be allowed into rate base until it has an approved Integrated Resource Plan and is actively engaged in least-cost planning. Tr. 2/6/97 at 232 (Love).

964. Mr. Love stated that the Board should revoke Citizens' franchise if the Company violated its probation. Mr. Love testified,

> . . . obviously a probation is just that, is that it is -- it says that we have a contingent franchise and that, you know, we would be agreeing that franchise

> would be lifted without protest if we did not conform to the terms of the probation.

Tr. 2/6/97 at 127-128 (Love).

965. Mr. Love's testimony regarding the appropriateness of probation, and its terms, represented the position of the Company. Tr. 2/6/97 at 133-134 (Love).

966. We find that, given the serious and numerous management and operational deficiencies at Citizens, for probation to be effective its terms must be both broad and strict, and it must include substantial financial penalties to the Company. Findings 946-954, above; tr. 2/6/97 at 122 (Love).

B. Discussion re Remedies

1. Revocation

Under 30 V.S.A. § 231(a), we may amend or revoke a utility's certificate of public good "[f]or good cause, after opportunity for hearing." We have recently addressed the interpretation of what constitutes "good cause" to revoke a CPG in the *Duxbury Water* case. Docket No. 5817, *In re Duxbury Water Company*, Order of 9/4/96.[325] In *Duxbury Water*, the Board held that good cause for revocation must be determined in a case-specific inquiry, with that inquiry informed by consideration of the following factors:

- the factors that the Board has previously articulated for issuance of a utility franchise;[326]
- the utility's compliance with the fundamental statutory obligation to furnish reasonably adequate service to the public;
- the utility's compliance with the law, with the Board stating that "[f]ailure to abide by applicable laws, especially laws that are designed to protect the

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325. *Duxbury Water* was decided under 30 V.S.A. § 102(c), which governs revocation of certificates issued under Section 102. The statutory standard for revocation is identical in Section 102(c) and Section 231(a).

326. Those factors are technical expertise, adequate service, facility maintenance, balance between customers and shareholders, financial stability, ability to obtain financing, business reputation, and relationship with customers. *Id*. at 5. The Board's application of these same factors has led to the denial of a Certificate of Public Good, coupled with an order to sell the involved utility facilities. Docket No. 5699, *In re Quechee Service Company*, Order of 11/15/94.

> public, would be strong evidence that a public utility is failing in its obligation to promote the public good."[327]

The Board also stated that this was not an exhaustive list of factors that may be relevant in determining whether to revoke a utility's franchise.[328]

The Board's decision in *Duxbury Water* to revoke the company's certificate rested in large part on its conclusion that the company "has willfully failed to implement health, service quality and other standards for an extended period of time."[329]

In the current proceeding, Citizens contends that its conduct does not justify franchise revocation based on our *Duxbury Water* precedent.[330] We disagree. As we stated in *Duxbury Water*, our determination to revoke a CPG is by its very nature, case-specific. In that Order, we outlined a number of the factors that we will consider in reaching our decision. Those factors include the utility's compliance with applicable laws. As this Order discusses in extensive detail, Citizens has repeatedly violated Vermont law.

But Citizens also misreads *Duxbury Water*. As we clearly stated in that Order, our assessment of whether a Company's CPG should be revoked also examines the same factors we review when we receive a Company's initial petition for a CPG under 30 V.S.A. § 231.[331] These factors also apply to a request to acquire a company under 30 V.S.A. § 107.[332] Included in these factors is the Company's managerial competence.[333] As this Order explains extensively, the performance of Citizens' management is a primary factor underlying today's decision in Docket No. 5841.

We also note that underlying the Board's determination to revoke DWC's CPG was the performance of the Company's management. It was this performance that manifested itself in the specific concerns set out in that Order.

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327. Docket No. 5817, Order of 9/4/96 at 4-5.
328. *Id*. at 5-6.
329. *Id*. at 23.
330. Citizens Brief 4/7/97 at 249-256.
331. *See e.g.*, Docket No. 5608, Order of 3/16/94.
332. Docket No. 5900, Order of 2/26/97.
333. *See* Docket No. 5900, Order of 2/26/97 at 9.

Finally, Citizens' contention that revocation is not appropriate based upon the *Duxbury Water* decision also disregards the substantial factual distinctions between it and the Duxbury Water Company ("DWC"). DWC was a one-person operation, and served 66 connections.[334] According to its 1995 Annual Report,[335] Citizens has over a billion dollars in revenues and total assets of over 3.9 billion dollars, and serves over 1.5 million customers in twenty states, including approximately 20,000 electric customers in Vermont.[336] For a billion-dollar corporation to compare its conduct to a tiny water company is like comparing apples to elephants. Furthermore, with DWC the problems began and ended with one individual, who was its owner and president; with Citizens, the problem is not that of a single person who refuses to abide by regulatory requirements, but rather is a pervasive corporate attitude that is, in fact, much like the "anarchic attitude" toward regulation exhibited by DWC's owner.[337]

As we have discussed throughout Part Two of this Order, above, the evidence before us demonstrates conclusively that Citizens has failed to comport its behavior with Vermont law, Board Orders, accounting rules and standards, principles of least-cost planning, requirements for providing cost-effective DSM services to its customers, and prudent utility management practices. A common theme that runs throughout the Company's conduct is a corporate attitude that it may do as it pleases, and need not concern itself with applicable regulatory requirements.

Citizens contends that it has reformed its management and operations to address the problems that have been reviewed in this investigation. While ordinarily we would take some encouragement from these reforms, we do not rely on them here, at least at this time, given the long-standing and pervasive nature of these problems, and the lack of a record of improved operations at the VED, or the Harvey or Stamford offices.

Based on Citizens' long and consistent record of non-compliance and mismanagement, we conclude that the Company's operation of the VED has failed to promote the general good

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334. Docket No. 5817, Order of 9/4/96 at 6.

335. Citizens' Annual Reports and FERC Form 1's for the period from 1988 to 1995 are included in the evidentiary record. Tr. 1/8/97 at 241.

336. VED's 1995 FERC Form 1, at page 304, indicates that for 1995 the average number of Vermont electric customers was 19,927.

337. Docket No. 5817, Order of 9/4/96 at 9.

of the State of Vermont. The Company has been seriously derelict in its regulatory obligations to obtain necessary permits for its Vermont facilities, to ensure that it is providing service to its Vermont customers through the least-cost options, to provide all cost-effective DSM opportunities to its ratepayers, and to keep accurate, reliable, and complete books and records so that regulators can ensure that only appropriate costs are passed on to the Company's Vermont ratepayers. These regulatory obligations are designed to protect the public good; the Company's broad failure to comply with them supports our conclusion that good cause exists in the present record to revoke Citizens' Certificate of Public Good. Should the terms of strict probation set out below fail to achieve their necessary ends, the record of these proceedings will be relied upon, and will support a subsequent decision to end the probation and revoke the Company's Certificate to operate in Vermont.

Having concluded that good cause exists to revoke the Company's certificate, however, we are mindful that our ultimate goal must be to best promote the provision of reliable, least-cost, reasonably priced energy services to Citizens' Vermont ratepayers. We do not believe that immediate revocation of the Company's franchise is necessary for, or even the most expedient avenue toward, achieving this ultimate goal.

We reach this conclusion for two principal reasons. First, the forced sale of a large electric service territory could well involve significant uncertainties and transaction costs, and would bring into the Citizens'territory a new transmission and distribution company with the responsibility of identifying and correcting problems that it was not responsible for creating. Ideally, ratepayers will be better served by a regime in which Citizens is made responsible for correcting the problems that it has created, and is required to pay for that course of corrective action.

Second, it is significant that at the close of these hearings, Citizens itself acknowledged that a term of strict probation was now necessary. We would not be willing to enter into such a regime at all if the Company were still refusing to acknowledge its serious operational and managerial deficiencies. The Company's understanding that significant changes are necessary is an essential prerequisite to the course of probation that we set out below.

2. Terms of Regulatory Probation

For all of the reasons stated above, we will establish a probationary period during which the Company must abide by strict conditions designed to correct the many violations, failures and deficiencies described in this Order.

The terms of probation will be tailored to address the specific management and operational problems that this investigation has revealed, and are intended to be both extensive enough and detailed enough to be effective. Because probation is necessary only due to the Company's violations of the law and violations of prudent utility practices, the costs of probation must not be passed on to ratepayers. Thus, the terms of probation must include provisions designed to protect VED ratepayers, and Vermont ratepayers in general,[338] from bearing any of the costs of the corrective actions that we find necessary.

We conclude, as did Mr. Love, that Citizens' Vermont franchise should be made a contingent one. Pursuant to 30 V.S.A. § 231(a), we will amend Citizens' Certificate of Public Good to make it contingent upon full compliance with the terms of probation, once those terms have been finalized.

For the guidance of the parties, we set out below those terms of probation that we judge will be necessary to ensure sufficient corrective action by Citizens. However, we do not have a detailed record on these issues, and we believe that the parties should have an adequate opportunity to propose modifications and additions to the proposed probationary terms set out here. We will set an early hearing date to consider the parties' comments upon these proposed terms.

The terms of probation will include, at a minimum, conditions similar to the following:

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338. Because the Board and the Department are funded by a gross receipts tax on utility sales, and Vermont utilities recover those taxes from their ratepayers, any additional costs to the Board and Department for enforcement of this Order would eventually be paid by Vermont ratepayers in general, absent provision in the terms of probation for the Company to pay those additional costs specifically.

a. The Board will appoint a Special Master to oversee the Company's compliance with the terms of probation. All costs associated with the Master's activities, including regulatory costs, shall be billed back to the Company and shall not be included in VED's retail rates.

b. Within thirty days, Citizens must provide the Board and Department with an organizational chart clearly showing, by name of employee and position title, all lines of responsibility for management and operations at the Vermont Electric Division. This chart shall include all lines of responsibility within the VED, between the VED and all corporate offices, and among and within all corporate offices. The Company must notify the Board and Department in writing of all changes to key responsible personnel, positions, and lines of responsibility within seven days of each such change.

c. On or before December 1 of each year, the Company shall file with the Board and Department a detailed report of its proposed capital expenditures for the ensuing year. The report must include all known construction projects, including upgrades and replacements of existing facilities, and must clearly identify each project by type, location, size (such as length of a line), voltage level(s), purpose, and estimated cost. In each instance where an existing facility is being upgraded or replaced, the report must clearly identify for the existing facility the type, location, size, voltage level(s), purpose, and dates of original construction and any subsequent modification. For each proposed construction project, the report must indicate whether the Company will be applying for any local, state and federal approvals, must identify each such approval for which the Company intends to apply, and must include a statement signed by a licensed attorney indicating that the attorney has reviewed the project and is of the opinion that all required approvals are included in the list of approvals for which the Company intends to apply. The report must be accompanied by an affidavit signed by the VED General Manager, the Vice President of Citizens' Public Services Sector, and Citizens' General Counsel or President (or their equivalent, if position titles or responsibilities change in the future); the affidavit must state that, based on reasonable inquiry, each affiant believes the information contained in the report to be true, accurate and complete.

d. An independent, complete audit shall be undertaken of Citizens' transmission plant accounts. Within forty-five days, the Company must submit a detailed proposal for this audit to the Department for review and to the Board for approval. The detailed proposal must identify the name of the proposed independent auditor, the proposed scope of the audit, and the proposed audit methodology. After the proposal has received Board approval, the independent audit shall commence promptly subject to the oversight of the Board-appointed Master, with the Company paying all costs of the audit. Upon completion of

the audit, its results shall be reported promptly to the Master, the Board and the Department.

e. An independent, complete audit shall be undertaken of Citizens' distribution plant accounts. Within forty-five days, the Company must submit a detailed proposal for this audit to the Department for review and to the Board for approval. The detailed proposal must identify the name of the proposed independent auditor, the proposed scope of the audit, and the proposed audit methodology.

f. The Company must pay for an independent, total audit of its DSM and ACE accounts. Within forty-five days, the Company must submit a detailed proposal for this audit to the Department for review and to the Board for approval. The detailed proposal must identify the name of the proposed independent auditor, the proposed scope of the audit, and the proposed audit methodology. After the proposal has received Board approval, the independent audit shall commence promptly subject to the oversight of the Board-appointed Master, with the Company paying all costs of the audit. Upon completion of the audit, its results shall be reported promptly to the Master, the Board and the Department. The costs of the audit shall not be included in VED's retail rates.

g. Within ninety days, Citizens shall make a filing certifying that it has implemented in full the following accounting requirements. These requirements shall remain in effect for a minimum of five years.

(1) Citizens' accounting records for any costs either directly charged to VED or allocated to VED or for any costs that are ultimately paid for in full or in part by Citizens' ratepayers in Vermont, shall be kept in strict conformance with the FERC Uniform System of Accounts. These accounts include, but are not limited to, expense records, records of capital expenditures, transmission and distribution plant records, depreciation expense records, tax adjustments, administrative and general expense accounts, and CIAC accounts.

(2) At the end of each fiscal year, after Citizens closes its books, it shall provide an affidavit signed by the Company President certifying that all costs closed to plant-in-service for that year were closed in accordance with generally accepted accounting principles. Equipment costs shall not be capitalized until the equipment has been installed.

(3) All blanket orders and improvement orders that include any projects that affect the VED shall have detailed appropriate documentation attached to them at the time they are opened, including documentation of projected project costs. When a blanket or improvement order is closed to plant,

documentation of the final cost of the project, broken down by project subcomponents, shall be attached. Post-completion audits shall be performed for all projects over $10,000 that are charged to improvement and replacement orders. These audits shall be done by an independent entity under the direction of the Board-appointed Master. The use of blanket orders shall be limited to projects that commence and are completed within 180 days and for which final total costs are projected to be less than $10,000.

(4) After the initial independent audits of the VED's transmission and distribution accounts are completed, a random sample of these accounts shall be made on at least an annual basis, at random times of the year with no prior notice to the Company. The Board-appointed Master shall designate an independent expert in utility accounting to perform this sampling. The independent expert shall check the random accounts against other appropriate documentation, and where necessary, will undertake a site visit to confirm the existence of plant booked to these accounts.

(5) Within thirty days after the closing of VED's yearly MWIP and CWIP reports, the Board-appointed Master shall designate an independent expert in utility accounting to review these reports to ensure that they are accurate and reconcile with one another and with VED's general ledger.

(6) Each quarter, Citizens shall provide the Board-appointed Master a summary of all accounting transactions and transfers between VED and SAO, between SAO and VED, between HAO and VED, and between VED and HAO. That summary shall be accompanied by complete documentation of any transfers or adjustments that have been made between the accounts, including the reason for and basis for the transaction or transfer. The quarterly summary must be accompanied by an affidavit signed by the VED General Manager, the Vice President of Citizens' Public Services Sector, and the Corporate Controller (or their equivalent, if position titles or responsibilities change in the future); the affidavit must state that, based on reasonable inquiry, each affiant believes the information contained in the report to be true, accurate and complete. The Board-appointed Master shall review these transactions and shall be empowered to order further investigation of any transfers that do not have appropriate documentation or justification.

(7) At least annually, the Company shall submit an update of its allocation model to the Board-appointed Master, who will review the allocation of costs from SAO to VED and HAO to VED. The Master will review the model and associated common costs for accuracy and consistency with other VED accounts. Citizens' initial filing shall be accompanied by a complete, accurate, and clearly understandable explanation of the assumptions, embedded formulas, exogenous factors, and all other relevant details of the model itself. All changes to any of these model details in subsequent submittals shall be accompanied by a like explanation.

Each filing of the updated allocation model must be accompanied by documentation supporting all Overhead and administrative and general ("A&G) costs that are charged from SAO to VED and HAO to VED; the documentation must show that these costs were incurred as a direct result of service that will benefit Vermont ratepayers. If overhead and A&G expenses are charged based on payroll or employee time, the appropriate time sheets must be attached. If there is another basis for the allocation, it must be explained and accompanied by complete documentation. The documentation must be accompanied by an affidavit signed by the VED General Manager, the Vice President of Citizens' Public Services Sector, and the Corporate Controller (or their equivalent, if position titles or responsibilities change in the future); the affidavit must state that, based on reasonable inquiry, each affiant believes the information contained in the documentation to be true, accurate and complete.

Under no circumstances may Citizens charge any portion of overhead or A&G costs from its unregulated entities, or its non-electric regulated entities, to VED. The filing of the updated allocation model must be accompanied by an affidavit signed by the VED General Manager, the Vice President of Citizens' Public Services Sector, and the Corporate Controller (or their equivalent, if position titles or responsibilities change in the future); the affidavit must state that, based on reasonable inquiry, each affiant believes that Citizens has fully complied with this requirement.

(8) In January and June of each year, a full review of VED's accounts and accounting procedures shall be undertaken by the Board-appointed Master. VED's complete accounts shall be available for review by the Board Master. VED's accounts shall contain a full explanation for each entry. The semi-annual review shall examine all

aspects of Citizens' accounts but should focus particular attention on the accounts detailed in this Order. At all times, VED's accounts shall be available for review upon request. Any accounting irregularities or flaws in accounting procedures that surface as a result of the semi-annual review shall be brought to the attention of the Board and the Department.

(9) Citizens shall file with the Board on an annual basis, a copy of its FERC Form 1, a copy of its annual report and annual supplemental schedules, a copy of all proxy statements for that year, a copy of Monthly Operating Report Forms 4-2 and Production Detail Reports 15-1-V.

h. If the Company is subject to any investigation for alleged violation of any statute, regulatory requirement, or order in any state or by any federal agency, it shall provide notification of such an investigation to both the Board and the Department within five days of commencement of the investigation.

i. The Company shall commit to implement all cost-effective energy efficiency programs for the benefit of its Vermont customers. We expect this to involve, at a minimum, three and one-half percent of VED's gross revenues. Operational mechanisms for ensuring the delivery of those services must be established. Specific mechanisms, which may include the appointment of an independent DSM manager to administer energy efficiency programs for the benefit of VED ratepayers, will be established after the additional hearing discussed below.

j. Within forty-five days, the Company must submit to the Department for review and the Board for approval a proposal for implementing cost-effective least-cost analyses. The Company will not be allowed to include in rate base any capital expenditures made after the date of this Order until the Board has approved the Company's proposal for implementing least-cost analyses. Board approval of the proposal will not constitute a determination that any specific capital expenditure is consistent with least-cost principles.

k. Citizens must pay the full costs of this probation, and none of the costs may be recovered in VED's retail rates. To assure that this condition is satisfied, Citizens must comply with the following requirements:

(1) Citizens must keep complete, accurate, and reliable records of its costs in complying with this probation, including all direct, indirect, overhead, and allocated costs. Within ninety days, Citizens must file with the Department for review and the Board for approval a proposed system reasonably designed to determine, track, record, and substantiate all such costs.

(2) Citizens must reimburse the Department, the Board, and the Board-appointed Master in full for their respective costs incurred in the oversight and administration of this probation, including but not limited to costs of monitoring the Company's compliance with the terms of probation. If the Company believes that a particular request for reimbursement from the Department, Board, or Master does not represent a necessary or reasonable cost, the Company may petition the Board to review the necessity or reasonableness of the requested reimbursement.

l. If Citizens fails to comply with the terms of this probation, its Certificate of Public Good to operate the VED shall be revoked.

m. The probation period will extend for a minimum of five years. At the end of the five-year period, we will evaluate Citizens' performance of its obligations as a regulated public utility in Vermont, and at that time determine whether to continue, modify, or end the Company's probation. The reduction in return on equity ordered today shall remain in effect as a term of probation until the end of the probationary period, unless modified pursuant to Paragraph (n) below.

n. The Board reserves the right to modify these terms of probation, including the imposition of additional terms, as needed.

These are the minimum terms of probation that we have thus far concluded to be necessary, in light of the many and serious problems in the management and operation of the VED. We will schedule an additional hearing or hearings for the purpose of determining whether we should modify or supplement these terms of probation.

3. Statutory Penalties

In previous sections of this Order, we have concluded that Citizens failed to comply with various requirements of Vermont law. The Department urges us to impose penalties upon Citizens for these violations and other acts under 30 V.S.A. § 30.[339] In general, we agree with the Department and find, as explained below, that Citizens' violations of legal requirements warrant the imposition of penalties.

339. *See* DPS Brief, Appendix of Violations 4/9/97.

Section 30 sets out the general penalty provisions applicable to actions regulated by the Board under Title 30. At the time most of the events at issue here occurred, Section 30 provided (in pertinent part) as follows:

> A person, company or corporation subject to the supervision of the board or the department of public service, who refuses the board or the department of public service access to the books, accounts or papers of such person, company or corporation within this state, so far as may be necessary under the provisions of this chapter, or who fails or refuses to furnish any returns, reports or information lawfully required by it, or who willfully hinders, delays or obstructs it in the discharge of the duties imposed upon it, or who fails within a reasonable time to obey a final order or decree of the board, shall be fined not more than $5,000.

The language that applies to most of the violations cited by the Department is the clause "or who willfully hinders, delays, or obstructs it in the discharge of the duties imposed upon it, . . ." We previously examined this language in Docket No. 5625. In that proceeding, we found that Citizens had violated 30 V.S.A. § 248(a) by commencing site preparation and by constructing a transmission line without prior Board approval.[340] These two violations of explicit statutory requirements, we concluded, constituted willful obstruction of the Board in the discharge of its duties.[341] Implicit in our decision is the conclusion that knowing violations of statutory requirements constitute willful obstruction of the Board subject to penalties under Section 30. We apply that standard here.

The legislature substantially amended Section 30 in 1996, expanding its scope and increasing the penalties for violations of the statute, Board Orders, and rules. 1995, No. 99 (Adj. Sess.). No party requests that we apply these increased penalty amounts to actions that occurred prior to the 1996 enactment. However, the Department argues that the changes in Section 30 would apply to the extent that a pre-existing violation continued beyond the date on which the amendments were effective (July 1, 1996).[342] Thus, to the extent that Citizens had constructed facilities without the requisite authorization under Section 248, the Department argues that the Company's failure to obtain that approval constituted a continuing violation.

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340. Docket 5625, Order of 3/28/94 at 28.
341. *Id.*
342. DPS Brief, Appendix of Violations 4/9/97 at 5.

Citizens contends that the amended Section 30 cannot be thus applied to violations that are tied to its actions that occurred to the statutory amendment.[343]

At this time, we decline to treat the violations that commenced prior to July 1, 1996, but continued after that date as "continuing violations" subject to the higher penalty amounts under the amended Section 30. While we find some merit to the Department's assertion that violations that continued to occur after July 1, 1996, should be treated as continuing violations, the Department has not adequately demonstrated at this time that Vermont law allows us to do so.

We note that Title 30 also allows the Board to impose penalties on persons or officers of Citizens under Section 247 for violations of Board orders, rules, or regulations or for violations of Title 30, Chapter 5.[344] No party has requested that we impose sanctions under this section to the violations at issue in this proceeding.

We now turn to the specific violations cited by the Department.

Breach of 1990 Memorandum of Understanding Incorporated in Board Order[345]

As we discussed in Part Two, Subpart II(E)(1), we conclude that Citizens violated a Board Order by failing to comply with the Memorandum of Understanding submitted in Docket No. 5426 and approved by the Board in that Docket. The Order, and the MOU adopted as part of that Order, required Citizens to conduct least-cost planning for its transmission and distribution system. Citizens did not do so. Section 30 provides for a penalty of up to $5,000 for violation of Board Orders. We find that Citizens' violations of the MOU, an agreement that it voluntarily entered into and that we approved in Docket No. 5426, justifies imposition of a penalty of $5,000.

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343. Citizens Reply Brief 4/18/97 at 91-93.

344. Section 247 provides as follows:

> A person or the officers of an association or corporation who violates any order, rule or regulation adopted or established under the provisions of this chapter or violates any provision of this chapter shall be fined not more than $100.00 or imprisoned not more than sixty days, or both.

345. Docket 5426, Order of 10/24/90.

Failure to perform least-cost analysis on Bloomfield line
Failure to perform least-cost analysis of design changes to 120 kV line
Failure to perform least-cost analysis of changes to Irasburg substation
Failure to perform least-cost analysis of changes to Newport Center substation

The Department also requests that we fine Citizens in conjunction with the construction of several facilities without performing least-cost analysis prior to construction. These facilities include the 120 kV line, the line between Island Pond and Bloomfield, the Irasburg substation and the Newport Center substation. The Department has not, however, explained how this violation is separate and distinct from Citizens' general failure to abide by the MOU and Board Order in Docket No. 5426 (see item 1, above) and thus subject to a separate penalty under 30 V.S.A. § 30. Absent a showing that Citizens' failure to conduct least-cost planning for the Bloomfield line was a separate violation of the Board's Order in Docket No. 5426 or Section 30, we do not impose a separate penalty.

Failure to apply for a CPG for Bloomfield line

In Part Two, Subpart II(A)(5), we found that Citizens had constructed the line between Island Pond and Bloomfield without obtaining the prior Board approval required under Section 248(a). In failing to obtain prior approval, Citizens committed two separate violations of Section 248(a). First, Citizens commenced site preparation; second, Citizens commenced construction of the line. As we concluded in Docket No. 5625, these constitute separate violations of Section 248(a), each of which is subject to penalties under Section 30.[346] We find the maximum penalty for each violation ($5,000) should be imposed.

Failure to apply for a CPG amendment for the 120 kV line

The Department requests that we impose penalties upon Citizens for its construction of the 120 kV line without first seeking an amendment to its CPG. The Department cites four specific changes that Citizens made from the project we authorized in the CPG issued in Docket No. 5331. In addition, the Department notes that Citizens did not request a CPG at all for construction of improvements to two substations undertaken as part of the project.

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346. Docket 5625, Order of 3/28/94 at 28, 31.

We concluded, in Part Two, Subpart II(A)(1), that Citizens should have requested a modification to the Docket No. 5331 CPG for its revisions to the 120 kV line. The remaining question is how many violations of Section 248 Citizens' actions constitute. The Department appears to suggest six separate violations, citing changes to different segments of the originally permitted 120 kV line.[347] It is clear that Citizens committed at least two violations of the statute. Section 248(a) requires prior approval in conjunction with construction of an "electric transmission facility." While we believe that the different segments of the 120 kV line could be held to constitute separate transmission facilities, each subject to separate violations, we will, as a matter of discretion, treat them as a single failure to obtain approval under Section 248. Thus, we will penalize Citizens for two separate violations: commencement of site preparation and commencement of construction.[348] Under Section 30, the penalty for these two violations will be $10,000 ($5,000 each).

Violation of Condition 7 of the Docket No. 5331 CPG

We concluded in Part Two, Subpart II(A)(1), above, that by failing to limit construction in wetland areas to times of the year when the ground was frozen, Citizens violated the express provisions of Condition 7 of the CPG that we issued in Docket No. 5331. We impose the maximum penalty of $5,000 for this clear violation of an explicit CPG condition.

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347. Presumably, because Citizens both commenced site preparation and began construction, the Department actually seeks penalties for 12 separate violations, although the Department's Brief is not clear on this point.

348. We recognize that Citizens was authorized to commence both site preparation and construction in Docket 5331. That authorization was limited to the facilities as approved. Citizens clearly was not authorized to construct the 120 kV line as it did. And to the extent the Docket 5331 CPG authorized construction, it included neither the "as-built" facilities nor the two additional substations.

Failure to apply for permit or amendment for material modification of Irasburg substation
Failure to apply for permit or amendment for material modification of Newport Center substation

The Department also requests that we fine Citizens for its failure to apply for a CPG or an amendment to its CPG in conjunction with the modifications to the Irasburg and the Newport Center substations. These substations were upgraded as part of the construction of the 120 kV line. As we concluded with respect to that line, we have decided to exercise our discretion to treat Citizens' failure to obtain prior approval under Section 248 for the various physical components of the 120 kV line as a single act, rather than separate acts. This determination includes these two substations. Thus, on the particular facts of this case, we do not penalize Citizens separately for each component of the 120 kV project for which it failed to receive prior approval as required by Section 248.[349]

Failure to apply for permit for construction of new H. K. Webster substation
Failure to apply for permit for construction of new Burton Hill Substation

We have determined, in Part Two, Subparts II(A)(2) and II(A)(3), that Citizens failed to comply with the requirements of Section 248(a) by not obtaining a CPG prior to commencing site preparation and construction of the new H. K. Webster and Burton Hill substations. The Department argues that we should impose penalties upon Citizens for these violations. We agree. The fine that we can assess under Section 30 is $5,000 per violation. Since both the commencement of site preparation and of construction are separate violations, the maximum penalty for these violations is $20,000, which we adopt.

Relocation of 46 kV line from Richford substation without permit
Relocation of 46 kV line between Richford substation and H. K. Webster plant

The Department requests that we fine Citizens for relocating two 46 kV lines without receiving prior approval under Section 248. As we discuss in Part Two, Subpart II(A)(4), Citizens did not request prior approval under Section 248 for these lines. The evidence,

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349. In reaching our conclusion, we have examined Section 30 as it previously existed. We take no position on whether Section 30, as amended in 1996, may have led to a different result.

however, does not demonstrate that Citizens needed such approval. Thus, we do not impose penalties under Section 30.

Failure to respond to Board's request for information re: GO 51 interpretation/exemption

On October 19, 1995, the Clerk of the Board issued a request letter to Citizens, stating:

> Citizens' petition of 7/17/95 refers to "certain construction at 34.5 kV which it had hoped to complete during the 1994-1995 construction season." This implies that such construction has already begun. Could the Company clarify exactly what construction is being referred to in this section. Citizens' petition of 7/17/95 at 4.

Exhibit CVPS Cross-5. The Department alleges, and the Company concedes, that Citizens did not respond to this request.[350] As a result, the Department requests that we penalize Citizens for its failure to respond to a request for information and for obstructing the Board in the performance of its duties.

We agree with the Department that Citizens, like other companies subject to the Board's jurisdiction, has an obligation to respond to requests for information issued by both the Board and Department. Sections 18, 29, and 206 (for the Department) require companies to provide information that the Board and Department request. Where a company fails to provide that information, the statute provides for payment of penalties under Section 30.

In this instance, Citizens has acknowledged that it did not respond to a valid request for information from the Board. Citizens, in response to the Department's allegations, did not offer a justification for its failure that might cause us to exercise our discretion and not impose a penalty. As we have stressed, the Board and Department must rely upon regulated companies to provide accurate information upon request. Citizens' decision not to respond to a valid request to obtain information concerning the construction of transmission facilities leads us to conclude that the maximum penalty of $5,000 is appropriate for failure "to furnish any returns, reports or information lawfully required by it."[351]

Although we conclude that a fine is appropriate because Citizens failed to respond as required by Vermont law, we also conclude that Citizens' actions willfully obstructed the

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350. Avery pf. 8/20/96 at 22; tr. 11/1/96 at 195 (Avery).
351. 30 V.S.A. § 30 (prior to 1996 amendments).

Board in discharging its statutory duties. We have learned in this proceeding that the Company constructed 34.5 kV facilities without necessary Board approval. Given the Company's clear pattern of evasion of its regulatory requirements, Citizens' failure to respond to the Clerk's request cannot be viewed as an innocent oversight; instead, this failure was either intended to avoid detection of illegal activity, or at least served to further that result. This provides an independent basis for imposing the maximum penalty under Section 30.

Failure to collect tax component of CIAC

The Department argues that Citizens failed to follow Board rules when it charged customers for contributions in aid of construction ("CIAC"). Although Citizens assessed the cost of the construction, it did not also include in the CIAC the tax that Citizens must pay on the contribution.

We agree with the Department that the appropriate and common practice in Vermont is for utilities to assess both the CIAC and an additional contribution to cover the additional taxes that a utility must pay on the contribution it receives. The Board, however, has not established a formal rule requiring utilities to include the tax component in the CIAC. Nor has the Board specifically ordered Citizens to do so. Nonetheless, Citizens' tariff requires the Company to assess customers for the costs of constructing line extensions. As the Company admitted, the taxes on the CIAC are part of the costs Citizens incurs and thus by failing to assess the tax component, Citizens failed to follow its own tariffs. This constitutes a violation of 30 V.S.A. § 229. Under 30 V.S.A. § 230, the Board is authorized to impose a fine of between $500 and $5000 for each instance in which the Company offers a special rate without prior Board approval under Section 229.[352]

The evidence in this proceeding does not demonstrate how many times the Company deviated from its tariff, nor how much money was involved in not collecting the full CIAC from customers. We could determine this information by convening additional hearings to

352. The 1996 amendment to Section 230 raised the maximum amount to the higher of $10,000 or five times the amount of the improper discount or rebate.

take evidence on the number and magnitude of violations. Instead, we will exercise our discretion and impose a penalty of $5000 for a single violation of Section 230.[353]

Citizens' decision not to follow its tariff, however, constitutes one more example of the management failures that we have cited throughout this Order. Legally valid tariffs serve little purpose if companies choose not to comply with them.

Demand-Side Management

The Department urges us to fine Citizens for its failure to implement and deliver DSM programs as required by this Board in Docket Nos. 5270 and 5270-CUC-2. In Part Two, Subpart II(J) of this Order, we conclude that Citizens' DSM performance has not been adequate. While this may involve significant violations under Section 30, as we stated in Part Two, Subpart II(J) of this Order, we attribute this inadequate performance to an overall failure of management. We discuss the appropriate remedies for this larger failure in the sections immediately preceding and following this one.

Line serving Franklin territory

The Department argues that we should penalize Citizens in conjunction with the construction of the line connecting the former Franklin territory with Citizens. As we discuss above, in Part Two, Subpart II(A)(6), we conclude that this line is a distribution line. Thus, Citizens did not violate Section 248 by initiating site preparation and commencing construction without seeking prior Board approval.

Failure to supply information and access to documents

The Department requests that we assess fines against Citizens for several failures in this proceeding to provide documentation or respond in a timely and complete manner to information requests. In its Brief, the Department identifies four separate violations:

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353. Citizens' admission that it has violated its tariff demonstrates at least one violation. We note that it is extremely likely that violations of Section 229 for failure to collect the full CIAC have occurred since the 1996 amendment of Section 230. If so, the maximum potential penalty for such violations may be significantly higher than the amount we have assigned here.

1. Failure to give Mr. Avery access to documents;
2. Failure to supply documentation to Seymour Laskow;
3. Failure to supply R. Clayton workpapers; and
4. A pattern of discovery violations.

As the bulk of these actions occurred after July 1, 1996, the Department requests that we impose higher penalties under the amended version of Section 30.

Generally, the acts that the Department cites constitute violations of the discovery rules in Board Rule 2.214, which largely incorporates the Vermont Rules of Civil Procedure. Those discovery rules, in particular V.R.C.P. 37, also specifically provide sanctions for violations of the discovery process. We believe that since our rules specifically provide remedies associated with such violations, we should, as a matter of discretion, generally limit penalties to those set out in the rules. Thus, we do not fine Citizens under section 30 for its alleged failure to provide Mr. Avery with access to documents, to supply Mr. Clayton's workpapers, or to comply with discovery requirement.

We view the failure to supply documentation to Mr. Laskow differently. The Company's unilateral decision not to supply information it had previously agreed to provide the Department occurred separate from the normal discovery channels and near the end of the case. It may have had the effect of obstructing the Board or Department in discharging its duties under Vermont law, in which case Citizens would be subject to penalties under Section 30, as amended. At this time, however, we find that Citizens has not had notice and an opportunity for a hearing on this issue. Thus, we cannot now impose the penalty requested by the Department. Instead, we are willing, upon request, to schedule an additional hearing on the issue of whether Citizens should be fined under Section 30 in conjunction with its failure to provide Mr. Laskow with information.

In reaching the decision not to impose penalties for the alleged discovery violations, we do not conclude that our rules, in conjunction with Section 30, prevent us from assessing the penalties in Section 30 in the context of failure to provide information requested through the discovery process. In certain cases, we may conclude that the nature of the acts requires resort to civil penalties under Section 30 in addition to the sanctions of Rule 2.214.

Termination of James Avery in midst of his testimony

Finally, the Department requests that we sanction Citizens for dismissing James Avery in the middle of his testimony before the Board. The Department contends that this action constituted willful obstruction of the Board and thus violates Section 30 (as amended).

We disagree. While it is clear that the Citizens action disrupted the hearing process, on the evidence before us, we cannot conclude that the dismissal of Mr. Avery was a willful obstruction of the Board.

Payment of Statutory Penalties

As we stated in Docket No. 5625, in addition to their deterrent effect, penalties can further promote the public good by being used to offset expenditures that would otherwise be accrued and charged to ratepayers. This is accomplished by crediting the dollar amount of the fines to one or more deferred expenditure accounts upon which interest is charged, as of the date of this Order. We conclude that this is an appropriate mechanism for the payment of the statutory penalties that we impose in this Order.

Conclusion re: Statutory Penalties

We have identified 12 separate violations of regulatory requirements for which we have decided to assign penalties under Section 30. For each of these violations, we have imposed a penalty of $5,000 under Sections 30 and 230. Considering the pattern of violations, we consider the total civil penalty of $60,000 small.[354] In light of the overall rate reduction and reduction in return on equity ordered today, we have as a matter of discretion declined to impose specific penalties for each of the acts identified in this proceeding that may constitute a violation. Were those rate reductions not included in this Order, we would seriously examine each of these actions for application of the penalties established in Title 30.

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354. We note that under the amended versions of Sections 30 and 230, Citizens would have been subject to a maximum civil penalty of $100,000 for each of the 11 violations that are enforceable under that section, plus the increased maximum penalties under Section 230 for each failure to comply with tariffs.

We emphasize that these penalties are for specific, identifiable violations of requirements under Title 30 of the Vermont statutes. In imposing these fines, we are not penalizing the Company for the overall failures of management set out in this Order. We address those concerns now.

4. Return on Equity Penalty

The evidence in the record of this investigation shows unequivocally that Citizens Utilities Company has failed in its responsibility to manage and oversee its Vermont Electric Division. It is apparent, based on a pattern of mismanagement and willful failure to abide by Vermont laws and regulations that stretches over many years, that the Company has been unwilling to accept responsibility for its problems and take the actions necessary to correct them. In actions and in words, this resistance has carried through right up until the last day of the hearings in this proceeding.[355] While the Company pleads with us to accept its proclamations that its corporate culture has changed, we have yet no evidence to affirm the Company's avowals.

Citizens' failings are serious; the potential for negative consequences for the state's ratepayers and the state's environment is well documented. These failings lie directly at the feet of Company management in Vermont, and at its Stamford and Harvey headquarters. It is, therefore, appropriate that the Company's shareholders should be held responsible for Citizens' failures. The Company's officers and its corporate structure are responsible for Citizens' pattern of behavior, and it is the Company's shareholders who must now receive the message that such corporate irresponsibility will no longer be tolerated in Vermont.

The franchise granted to a public service monopoly is a privilege; a violation of the trust that is attached to that privilege is a matter that we take very seriously. The interests of the public and the state's ratepayers have been violated by this Company's disregard for Vermont's laws and regulatory principles. It is now necessary to restore the public trust and to ensure that the regulated monopolies that hold a license to operate in Vermont will serve the interests of ratepayers and residents under the laws of this state.

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355. See Part Two, Subpart II(L)(8).

Given the seriousness of the violations of law, of regulatory principles, of accounting standards, and of prudent management that are the direct result of the actions of Citizens' management, we conclude that a substantial reduction in the Company's allowed return on equity is now required. In this Order, we set the allowed return at 5.25 percent, which is one-half the rate of return on equity that would otherwise be found appropriate in this Docket. This return on equity shall also apply to the Company's calculation of AFUDC for the VED during the full term that this return on equity penalty remains in effect.

We have previously found, in Docket Nos. 5701/5724, that we had authority to reduce a company's return on equity as a penalty for inefficiency or poor service:

> Vermont law also makes it clear that adjusting a utility's rate of return is among the tools that regulators may employ in setting just and reasonable rates that will balance the interests of investors and consumers. The leading case is *In Re NET&T*, where the Vermont Supreme Court ruled:
>
> > a fair return to investors is not necessarily fair to consumers. "Regulation does not insure that the business shall produce net revenues". *Fed. Power Com. v. Natural Gas Pipeline Co., supra*. Rates follow service and a poor standard of service may afford a basis for a denial of a request for higher rates. A utility must be efficiently and economically managed and operated as a condition to the exercise of this right to impose rates adequate to cover the full cost of service and thus satisfy the investor requirement. So here, *if it should appear that consumers are not being adequately served because of fault on the part of the company, due to inefficiency or improvidence or other like reasons*, the commission should take such inadequacy, and its extent, into consideration in determining the rates to be fixed to the end that a reasonable return, under the circumstances, will result.
>
> *Petition of New England Tel. & Tel. Co.*, 115 Vt. 494, 513 (1949) (citations omitted, emphasis added); followed, *In Re Arlington Water*, 136 Vt. 495 (1978) and *In Re Young's Community TV*, 141 Vt 57 (1986).[356]

In fact, no party contests our authority to adjust Citizens' return due to the Company's actions.[357]

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356. Docket 5701/7524, Order of 10/31/94 at 179-180.

357. Citizens acknowledges the Board's authority to impose a penalty on its rate of return, although the Company advocates a smaller reduction than the one we adopt here. Citizens Brief 4/7/97 at 244-246.

We have previously ordered reductions to a regulated utility's return on equity due to company mismanagement. For example, in Docket Nos. 5701/5724, we reduced the allowed return on equity for Central Vermont Public Service Corporation ("CVPS") by 75 basis points due to CVPS' mismanagement of power supply options and 75 basis points for CVPS' failed efforts to acquire all cost-effective energy efficiency resources.[358] Similarly, in Docket No. 4997, we reduced the allowed return of Continental Telephone Company by 75 basis points, finding that:

> Until the Company's service reaches an acceptable level, it cannot expect to charge its subscribers the same rates that would be permitted if the Company's service were up to par, for that would be to reward the Company for its past neglect and to encourage mismanagement in the future. Therefore, we will reduce the Company's return on equity by 75 basis points.

Docket No. 4997, Order of 12/9/85 at 10.[359]

Other states have reached similar conclusions, explicitly adjusting allowed returns on equity upwards or downwards based upon the company management or other factors. For example, Florida has reduced utilities' return by up to 100 basis points for poor quality of service.[360] The state of North Carolina imposed a penalty of 550 basis points upon Virginia Electric Power Company due to inefficiency in the operation of its power plants.[361] The Maine Commission has recently echoed the general rule that:

> the fair rate of return goes beyond the mathematical calculation of costs and considers the qualitative aspects of the utility's operations. Such may include, but may not be limited to, adequacy and reliability, consideration of service, management and operational efficiency, and the interest of ratepayers.[362]

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358. *Id*. at 181. The two reductions were independently assessed, but imposed concurrently.

359. *See, also, In Re NET&T, supra*; *In re Young's Community TV Corp.*, 141 Vt. 53, 57 (1986).

360. *Re: Southern States Utilities, Inc.*, Docket No. 9540495-WS, slip op. at 16 (Oct. 30, 1996)(and cases cited therein); *Re: Gulf Power Co.*, 120 PUR4th 1 (1990).

361. *Re Virginia Electric*, N.C.U.C., Dkt. No. E-22 (1981)

362. *Re Central Maine Power Co.*, Docket No. 92-345, Slip op. at 18 (Me. P.U.C. Dec. 14, 1993). *See, e.g.*, *Re Central Maine Power Company*, Docket No. 92-102 (Phase II) (Me. P.U.C. October 28, 1993) (50 basis point penalty due to utility's unreasonable failure to control power costs); *Re Bangor Hydro-Electric Company*, Docket No. 86-242, Slip op. at 17-50 (Me. P.U.C. Dec. 22, 1987) (25 basis point reduction because of inefficiency in credit, collection, and energy efficiency services); *In Re Iowa Gas*, 76 PUR 4th, 425 (1986) (100 basis point penalty for

(continued…)

The same principle has also been used to increase allowed returns on equity where company performance has exceeded reasonable expectations.[363]

These precedents and other cases clearly demonstrate a connection between the fair return for a company and that company's obligation to fulfill its obligations to operate efficiently, provide quality service, and comply with applicable legal standards.[364]

The adjustment of returns on equity is consistent with the rulings of the United States Supreme Court which require public utility commissions to consider the "broad public interests" when establishing allowed rates of return. *Permian Basin Area Rate Case*, 390 U.S. 747, 791 (1968).

The Idaho Public Utilities Commission clearly enunciated this connection in *Re Citizens Utilities Company*, 35 PUR 378 (Idaho PUC, 1980). In that instance, the Idaho Commission concluded that a certain rate increase would be appropriate, except for the Company's poor service quality. The Commission explained:

> The statutory mandate of this agency cannot reasonably be construed to contemplate the allowance of rate relief where service provided by a utility company is inadequate. Clearly, regulation in such a context would have very little meaning; utilities would have little incentive to repair substandard facilities and would effectively be allowed to profit from their own neglect at the expense of their customers. We have traditionally held that the rate of return earned by a regulated utility should be commensurate with the caliber of service provided by that company. It is clear from the record in this case that the water service

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362. (…continued)
inefficiency); Re: General Telephone Company of the Northwest, Inc., 86 PUR4th, 626, 636-637 (1987)(50 basis point penalty for failure to address consumer complaints).

363. *Re: Iowa Southern Utilities Company*, 134 PUR4th 549, 553-558 (1992).

364. *See* Gellhorn & Pierce, Regulated Industries (2d Ed., 1987) at 141.

> A firm is entitled to earn a rate of return "adequate, under efficient and economical management, to maintain and support its credit . . .", *Bluefield Water Works & Improvement Co. v. Public Service Commission, supra*. The phrase "under efficient and economical management" is an important qualification. If an agency finds that a firm is not being managed efficiently and economically, it can lower the firm's allowed rate of return below the level otherwise required to meet the comparable risk test. *See Market Street Railway v. Railroad Commission*, 324 U.S. 548 (1945); *D.C. Transit Systems, Inc. v. Washington Metropolitan Area Transit Commission*, 466 F. 2d 394 (D.C. Cir.), cert. denied, 409 U.S. 1086 (1972).

> provided by CUC does not merit an increase in the rate of return now earned by the company.[365]

This denial of entire rate increase has the same functional result as the penalty on return on equity that we adopt here.

We recognize that the 525 basis point penalty is large by comparison to penalties that we have adopted in previous cases. However, the nature of the violations in those cases pale by comparison to the widespread and long-standing practices of Citizens that have been documented in this proceeding.

Our decision to reduce the Company's authorized return to 5.25 percent is reached on three independent grounds. First, it is appropriate in these circumstances to split the overall cost of equity capital evenly between ratepayers, who will continue to receive the benefits of utility operations, and investors, who are responsible for the inadequacies of the Company's management and operations. Second, during the term of this reduction, Citizens' shareholders will receive a return that is roughly equivalent to the returns earned by ordinary ratepayers on their passbook savings accounts or certificates of deposit. This is an end result that we find just and reasonable under the circumstances of this Company and this proceeding.

Third, we have considered the financial impacts of the penalties that are justified by the evidence in these Dockets, concluding that taken together they would reach at least the 525 basis point reduction that we order today: a two-hundred basis point penalty is appropriate for the Company's pattern of extensive violations of 30 V.S.A. § 248;[366] a two-hundred basis point penalty is appropriate for the Company's persistent failure to create a management structure that clearly defines responsibility for Vermont operations and compliance with Vermont laws; a one-hundred basis point penalty is appropriate for the Company's failure to abide by the State's requirement to perform a least-cost analysis prior to construction; a one-

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365. 35 PUR 4th at 379-380. *See also Pa. PUC v. Pennsylvania Gas and Water Co.*, 61 Pa. PUC 409 (Pa. PUC, 1986)(denying a water company's rate increase due to inadequate service).

[366]We emphasize that the return on equity reduction ordered here relates to the Company's pattern of repeated, willful violations of permitting requirements, the management failures that support this pattern, and the continuing failure to train and supervise Vermont operational personnel. Specific penalties for construction violations are a separate matter, addressed in Part Two, Subpart III(B)(3), above.

hundred basis point penalty is appropriate for the Company's failure to prudently manage its accounting system so that it that it can be relied upon for the purposes of ratemaking; a one-hundred basis point penalty is appropriate for the Company's failure to deliver adequate energy-efficiency services to its customers as required by 30 V.S.A. § 218c; and a one-hundred basis point penalty is appropriate for the Company's failure to abide by an express agreement incorporated in a Board Order. Altogether, these penalties could well exceed the return on equity reduction ordered here.

Finally, we do not believe that a reduction in the return on equity to 5.25 percent will materially impact the financial security of Citizens as a corporate entity. VED is a very small part of Citizens' overall corporate structure; VED has only 1.0 percent of Citizens' overall assets and provides only 2.0 percent of the Company's overall revenues.[367] This penalty will certainly not impact the ability of a company of this size, and with these resources, to raise the capital necessary to continue the level of service required of it in Vermont or elsewhere. Citizens has stated that "the Vermont percentage of Citizens' total revenues by and of itself is not significant."[368] The history of this Docket convinces us, unfortunately, that a very significant equity reduction in Vermont is required to capture the focused attention of Citizens' management to the problems this Company has in its Vermont operations.

In a recent past case, we imposed the highest penalty then permitted under the law for one of the types of infractions that the Company has been found guilty of in this proceeding.[369] It was our expectation at the time, that the imposition of that fine and our warnings to the Company that its behavior is unacceptable, would be admonishment enough. The penalty we impose here on the Company's return on equity is just and absolutely necessary to prevent such a recurrence. Combined with the stringent conditions of probation set out herein, we are hopeful that these remedies will ensure that these managerial and operational deficiencies will not continue.

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[367] In 1995, VED had assets of $49.8 million; Citizens had assets of $3.9 billion. In the same year, VED's revenues were $26.2 million; Citizens' revenues were $1.069 billion. VED's 1995 FERC Form 1 at 113-115; Citizens' 1995 Annual Report at 56.

[368] Tr. 3/18/97 at 75 (O'Brien).

[369] Docket No. 5625, Order of 3/28/94.

Given the longstanding and serious nature of Citizens' transgressions, the reduction on the return on equity shall remain in effect until the Company can demonstrate that it has corrected each of the problems identified herein in corporate accountability, financial accounting, permitting, and least-cost planning, and can demonstrate that it is delivering or supporting the delivery of superior energy efficiency services to its customers. In reaching our decision on this point, we underscore our conclusions that the evidence in this Docket could support a decision to revoke the Company's franchise altogether. However, the Company has sought the opportunity to correct its operational and managerial deficiencies, and to retain its Vermont franchise and customer base. We are willing to afford the Company the opportunity to improve its performance, but only under circumstances that reflect the seriousness of the pattern of violations revealed in this proceeding, and that create a real incentive within the Company to permanently alter that pattern of behavior. It is apparent that a modest, more routine penalty would not have that effect. The managers and shareholders of this Company must accept responsibility for Citizens' failings, and must have an adequate incentive to correct them.

IV. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that:

1. The Findings and Conclusions of the Hearing Officer in Part One are hereby adopted, except as modified herein.

2. Citizens Utilities Company is placed on regulatory probation for a minimum of five years, for the reasons set forth in our Findings and Discussions above. The specific terms of probation shall be determined following an additional hearing or hearings. The time and location of the hearing or hearings will be established by subsequent notice.

3. Citizens Utilities Company shall comply fully with the terms of regulatory probation as established in this proceeding. The Company's franchise for its Vermont service territory shall be contingent on the Company's compliance with the terms of probation. Pursuant to 30 V.S.A. § 231(a), we will amend the Certificate of Public Good of Citizens Utilities Company accordingly, once the specific terms of probation are established.

4. Citizens Utilities Company, subject to its compliance filing, is entitled to rates that will reduce retail revenues in the amount of $4,349,551 or 16.35 percent below existing base rates.

5. Citizens Utilities Company shall file tariffs that conform with the above Findings within ten days of the date of this Order. Copies of the compliance filing shall also be filed on the parties to this proceeding. Rates filed at that time shall be effective for service rendered on and after November 1, 1995, absent further order of this Board.

6. Citizens Utilities Company shall refund to customers all sums collected in excess of rates approved herein, retroactive to November 1, 1995. Refunds shall be made in the form of a one-time credit on customer bills, issued in the billing period immediately following the Company's tariff filings. This credit shall include interest calculated at 8.89 percent, the Company's composite cost of capital as determined in this proceeding. Unpaid refund amounts shall continue to earn interest at the rate of 8.89 percent, until fully disbursed. The Company shall also refund to customers the interest cost of the $300,139 Account 232.5 balance for the period of July 1, 1993 through November 7, 1996, with the interest cost

calculated using the AFUDC rates actually used by the Company's Vermont Electric Division during that period (without reflecting the reduction in allowed return on equity established in this Order); the Company shall include with its compliance tariff filing the calculation of the amount of this refund of Account 232.5 interest cost.

7. Citizens Utilities Company shall use the most recent Board-approved rate of return for common equity and Board-approved capital structure in all calculations for AFUDC for its Vermont Electric Division, unless specifically ordered otherwise.

8. Citizens Utilities Company shall perform a depreciation study, and shall file the results of that study with the Board and the Department of Public Service within one year of the date of this Order.

9. Citizens Utilities Company shall pay a fine in the amount of $60,000 for its violations of 30 V.S.A. §§ 30, 229 and 248, violations of our Order issued on October 24, 1990, in Docket No. 5426, and violation of Condition 7 of the Certificate of Public Good issued on October 12, 1990, in Docket No. 5331. The fine shall be paid in the form of credits to one or more deferred expenditure accounts as of the date of this Order. Citizens shall file a proposal within thirty days of the date of this Order detailing in which accounts, when, and by what procedures these "write-downs" will be taken.

10. Within 120 days of the date of this Order, Citizens Utilities Company shall apply for an amended Certificate of Public Good, pursuant to 30 V.S.A. § 248, for the revisions to the 120 kV transmission line project from Derby Line to Richford.

11. Within 180 days of the date of this Order, Citizens Utilities Company shall apply for a Certificate of Public Good, pursuant to 30 V.S.A. § 248, for the reconstruction of the H. K. Webster Substation.

12. Within 180 days of the date of this Order, Citizens Utilities Company shall apply for a Certificate of Public Good, pursuant to 30 V.S.A. § 248, for the reconstruction of the Burton Hill Substation.

13. Within 180 days of the date of this Order, Citizens Utilities Company shall apply for a Certificate of Public Good, pursuant to 30 V.S.A. § 248, for the Island Pond-to-Bloomfield line.

14. Citizens Utilities Company shall evaluate the lightning performance and design of its 120 kV line between its Border Substation and Highgate. This evaluation must include a study of the sufficiency of footing resistances, including an evaluation of whether the footing resistances present any worker safety issues and an identification of appropriate remedial measures for any insufficient footing resistances. Within sixty days of the date of this Order, Citizens Utilities Company shall submit to the Department of Public Service and to the Public Service Board a report on the results of this evaluation. If Citizens believes that it cannot complete the evaluation and report within sixty days, it shall so notify the Department and Board within two weeks of the date of this Order, provide the reasons for its inability to meet the sixty-day deadline, and propose the earliest date by which it reasonably can complete the evaluation and report; the Board will then decide whether to modify the deadline for submission of the report. In this event, Citizens shall still be required to evaluate as fully as possible the worker safety issues, and submit a report on those issues within sixty days of the date of this Order.

DATED at Montpelier, Vermont, this 16th day of June, 1997.

s/ Richard H. Cowart)	
	) PUBLIC SERVICE
	)
s/ Suzanne D. Rude)	BOARD
	)
	) OF VERMONT
s/ David C. Coen)	

OFFICE OF THE CLERK

FILED: JUNE 16, 1997

ATTEST: s/ Susan M. Hudson
Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board of any technical errors, in order that any necessary corrections may be made.

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by

the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.