Maturity Matching or "Self-Liquidating," Approach

Maturity Matching, or "Self-Liquidating," Approach
A financing policy that matches asset and liability maturities. This is a moderate policy.

The **maturity matching,** or **"self-liquidating," approach** calls for matching asset and liability maturities as shown in Panel a of Figure 14-3. This strategy minimizes the risk that the firm will be unable to pay off its maturing obligations. To illustrate, suppose a company borrows on a one-year basis and uses the funds obtained to build and equip a plant. Cash flows from the plant (profits plus depreciation) would not be sufficient to pay off the loan at the end of only one year, so the loan would have to be renewed. If for some reason the lender refused to renew the loan, then the company would have problems. Had the plant been financed with long-term debt, however, the required loan payments would have been better matched with cash flows from profits and depreciation, and the problem of renewal would not have arisen.

At the limit, a firm could attempt to match exactly the maturity structure of its assets and liabilities. Inventory expected to be sold in 30 days could be financed with a 30-day bank loan; a machine expected to last for 5 years could be financed with a 5-year loan; a 20-year building could be financed with a 20-year mortgage bond; and so forth. Actually, of course, two factors prevent this exact maturity matching: (1) there is uncertainty about the lives of assets, and (2) some common equity must be used, and common equity has no maturity. To illustrate the uncertainty factor, a firm might finance inventories with a 30-day loan, expecting to sell the inventories and then use the cash to retire the loan. But if sales were slow, the cash would not be forthcoming, and the use of short-term credit could end up causing a problem. Still, if a firm makes an attempt to match asset and liability maturities, we would define this as a moderate current asset financing policy.

In practice, firms don't finance each specific asset with a type of capital that has a maturity equal to the asset's life. However, academic studies do show that most firms tend to finance short-term assets from short-term sources and long-term assets from long-term sources.[16]

Aggressive Approach

WWW Students can access various types of historical interest rates, including fixed and variable rates, at the St. Louis Federal Reserve's FRED site. The address is **http://research.stlouisfed.org/fred/.**

Panel b of Figure 14-3 illustrates the situation for a relatively aggressive firm that finances all of its fixed assets with long-term capital and part of its permanent current assets with short-term, nonspontaneous credit. Note that we used the term "relatively" in the title for Panel b because there can be different *degrees* of aggressiveness. For example, the dashed line in Panel b could have been drawn *below* the line designating fixed assets, indicating that all of the permanent current assets and part of the fixed assets were financed with short-term credit; this would be a highly aggressive, extremely nonconservative position, and the firm would be very much subject to dangers from rising interest rates as well as to loan renewal problems. However, short-term debt is often cheaper than long-term debt, and some firms are willing to sacrifice safety for the chance of higher profits.

Conservative Approach

Panel c of Figure 14-3 has the dashed line *above* the line designating permanent current assets, indicating that long-term capital is being used to finance all permanent

[16] For example, see William Beranek, Christopher Cornwell, and Sunho Choi, "External Financing, Liquidity, and Capital Expenditures," *Journal of Financial Research*, Vol. 18, No. 2, 207–222.

Electric and Gas Carrying Charge Rate on
Supply-related Cash Working Capital
DG 07-072

Data Request PSNH 1-10

Dated: June 2, 2008
Page 1 of 1

Witness: James Rothschild
Request from: Public Service Company of New Hampshire

Question: (P8, L21) Is there a hierarchy for the use of short-term debt? What would be the order in which you would use short-term debt in the application of setting costs in rates?

Response: Please see the decision tree shown on JAR Schedule 1.

Electric and Gas Carrying Charge Rate on Supply-related Cash Working Capital
DG 07-072

Data Request UES 1-5

Dated: June 2, 2008
Page 1 of 1

Witness: James Rothschild
Request from: Unitil Energy Systems, Inc.

Question: Is the Staff recommending that the Commission change its current policy and practice with regard to the inclusion of short-term debt in a utility's capital structure for ratemaking purposes?

Response: Staff assumes that the question meant to say "base ratemaking purposes." Based on that assumption, the answer is no since this proceeding is not a base rate proceeding.

Electric and Gas Carrying Charge Rate on
Supply-related Cash Working Capital
DG 07-072

Data Request UES 1-6

Dated: June 2, 2008
Page 1 of 1

Witness: James Rothschild
Request from: Unitil Energy Systems, Inc.

Question: Is the Staff recommending any other changes to the Commission ratemaking policies and practices for determining the revenue requirement of a utility in a base rate proceeding or other rate setting proceeding?

Response: As noted in the previous response, the instant proceeding is not a base rate proceeding and, therefore, the scope of work for Staff's consultant does not include base rate issues. As regards non-base rate issues, the recommendations contained in Mr. Rothschild's testimony are the only changes that Staff supports at this time.

State of New Hampshire
Public Utilities Commission

Unitil Energy Systems, Inc.
DG 07-072
Responses to Staff Data Requests

Request No. Staff-1-4:
Does the Company or its parent operate a money pool for financing day-to-day cash borrowings of subsidiaries? If so, please respond to the following:

a. Identify all participants in the money pool;
b. Explain how the interest rate charged to participants for borrowings from the pool is determined;
c. Explain how the interest rate paid to participants for investments in the pool is determined;
d. Provide a copy of the money pool agreement

Response:

a. Participants of the Unitil money pool are: Unitil Corporation ("Unitil"), Unitil Energy Systems, Inc., Fitchburg Gas and Electric Light Company d/b/a Unitil, Unitil Power Corp., Unitil Realty Corp., Unitil Resources, Inc. and Unitil Service Corp.

b. Participant cash pool borrowings are funded from both surplus funds of other pool participants and from bank loans. Interest expense charged to cash pool participants is calculated on a daily basis based upon the pro-rata amount of surplus funds and bank loans required to fund the aggregate borrowing requirements of the participants. For the portion of borrowings derived from surplus funds, the daily interest rate is equal to the same day interest rate applicable to loans by the bank designated from time to time by Unitil as its "lead Bank", now the Bank of America, N.A. For the portion of borrowings derived from bank loans, the interest rate is the weighted average daily interest rate charged by the banks making such loans to the cash pool on that day.

c. Interest income credited to cash pool participants with surplus fund balances is calculated on a daily basis as well. To the extent that a cash pool participant has excess funds in the cash pool which are loaned to other participants, the interest rate earned on the funds loaned to other participants is equal to the same day interest rate applicable to loans by Unitil's "lead Bank", currently the Bank of America, N.A.

   While the Unitil cash pool in total has not been in an invested position for a number of years, should such a situation occur, the funding priority would be to utilize surplus pool funds to meet participants' borrowing requirements. Interest income and expense on surplus funds would be determined as described above, that is, based upon the same day interest rate of Unitil's "lead Bank". Surplus funds not loaned to pool participants, where practicable, would be invested in a diversified group of investments such as A1 P1 commercial paper, repurchase agreements and other short-term bank instruments. The aggregate interest earned on these aggregate investments would be allocated

State of New Hampshire
Public Utilities Commission

Unitil Energy Systems, Inc.
DG 07-072
Responses to Staff Data Requests

on a daily basis, based upon the pro rata relationship of their surplus funds contributed to the cash pool as compared to the total pool outstanding balance of surplus funds.

d. See Staff 1-4, Attachment A.

Person Responsible: Robyn Tafoya

Date: March 10, 2008

CASH POOLING AND LOAN AGREEMENT

Dated as of February 1, 1985

UNITIL CORPORATION, a New Hampshire corporation ("UNITIL"), CONCORD ELECTRIC COMPANY, a New Hampshire corporation ("Concord"), EXETER & HAMPTON ELECTRIC COMPANY, a New Hampshire corporation ("Exeter"), UNITIL POWER CORP., a New Hampshire corporation ("UNITIL Power"), and UNITIL SERVICE CORP., a New Hampshire Corporation ("UNITIL Service") (UNITIL, Concord, Exeter, UNITIL Power and UNITIL Service are hereinafter sometimes referred to individually as a "Party" and collectively as the "Parties"), agree as follows:

Section 1. <u>Certain Defined Terms</u>. As used in this Agreement and unless otherwise expressly indicated herein, the following terms shall have the following meanings (such meanings to be equally applicable to both the singular and plural forms of the terms defined):

"<u>Advance</u>" means an advance from the Cash Pool pursuant to Section 3 hereof and refers to a Bank Advance or a Surplus Advance.

"<u>Bank Advance</u>" means an Advance of Bank Borrowings.

"Bank Borrowings" means bank borrowings made by UNITIL and contributed to the Cash Pool.

"Business Day" means a day of the year on which banks are not required or authorized to close in Boston, Massachusetts.

"Cash Pool" means the pool of cash, comprising Surplus Funds and Bank Borrowings, from which Advances are made.

"Surplus Advance" means an Advance of Surplus Funds.

"Surplus Funds" means surplus funds contributed to the Cash Pool by the Parties.

Section 2. Contributions to the Cash Pool. Funds contributed to the Cash Pool will be deposited in one or more common bank deposit accounts established and maintained for the Cash Pool. Each Party shall have an independent withdrawal authority with respect to the funds which it has contributed to the Cash Pool and any earnings attributable to such funds which are not funding an outstanding Advance.

Section 3. Advances. (a) Each Party may request Advances from the Cash Pool from time to time during the period from the date hereof until this Agreement is terminated by written agreement of the Parties; provided, however, that the aggregate amount of all Advances to be requested by any Party hereunder shall not exceed the applicable borrowing limits, if any, established by such Party's Board of Directors and any regulatory authority having jurisdiction over such Party or established pursuant to any agreement binding upon such Party; and provided, further, that UNITIL Power may not receive any Advances hereunder until specifically authorized to receive such Advances by the New Hampshire Public Utilities Commission ("NHPUC").

(b) To the extent possible, Advances will be made first from Surplus Funds and second from Bank Borrowings.

(c) Surplus Advances will be made on a pro rata basis from the Surplus Funds contributed to the Cash Pool by each Party in the proportion which each Party's Surplus Funds in the Cash Pool bear to the total amount of Surplus Funds in the Cash Pool.

Section 4. Interest on Advances. Each Party receiving an Advance shall pay interest on the unpaid principal amount of such Advance to the Cash Pool from the date of such Advance until such principal amount shall be paid in full. The interest rate applicable on any day to Surplus Advances shall be the daily rate of interest applicable to loans to UNITIL by the bank designated from time to time by UNITIL as its "lead bank". The interest rate applicable on any day to Bank Advances shall be calculated to produce an aggregate interest charge on all such Bank Advances, at a rate which shall be uniform for all such Bank Advances, equal to the net cost to UNITIL of the Bank Borrowings used to fund such Bank Advances on such day.

Section 5. Repayment of Advances. Each Party receiving an Advance shall repay the principal amount of such Advance to the Cash Pool, together with all interest accrued thereon, within 365 days of the date on which such Advance was made, unless such day on which payment is due is not a Business Day, in which case such payment shall be made on the preceding Business Day.

Section 6. Bank Fees. During the first year of this Agreement the costs of compensating balances, commitment fees and fees paid to banks to maintain bank accounts and credit lines for purposes of Bank Advances shall be allocated provisionally among the Parties at the discretion of UNITIL Service. In each year thereafter such costs and fees shall be allocated provisionally to each Party on a pro rata basis in the proportion which each Party's aggregate principal amount of Advances for the prior calendar year bore to the aggregate principal amount of all Advances for such prior calendar year. Such costs and fees shall be retroactively reallocated at the end of each calendar year on a pro rata basis in the proportion which each Party's aggregate principal amount of Advances for such calendar year bore to the aggregate principal amount of all Advances for such calendar year.

Section 7. Event of Default. If any Party shall generally not pay its debts as such debts become due, or shall admit in writing its inability to pay its debts generally, or shall make a general assignment for the benefit of creditors; or any proceeding shall be instituted by or against any Party seeking to adjudicate it a bankrupt or insolvent, then the other Parties may declare the unpaid principal amount of any Advances to such Party, and all interest thereon, to be forthwith due and payable and all such amounts shall forthwith become due and payable.

Section 8. Amendments, Waivers. This Agreement may not be modified or amended in any respect except in writing executed by the Parties. No provision of this Agreement shall be deemed waived unless such waiver is set forth in writing and executed by the Party making such waiver.

Section 9. Legal Responsibility. Nothing herein contained shall render any Party liable for the obligations of any other Party hereunder and the rights, obligations and liabilities of the Parties are several in accordance with their respective obligations, and not joint.

Section 10. Records and Administration. UNITIL Service shall be responsible for the administration of this Agreement and for ensuring that all relationships and arrangements between the Parties hereunder are in compliance with the authorization and any applicable limitations of Report and Supplemental Order No. 17,343 of the NHPUC. UNITIL Service shall further be responsible for the determination of all applicable interest rates and charges to be applied to Advances outstanding at any time hereunder, shall maintain records of all Advances, interest charges and accruals and interest and principal payments for purposes hereof, and shall prepare regular reports thereof for the Parties.

Section 11. Governing Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of New Hampshire.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective officers thereunto duly authorized, as of the date first above written.

CONCORD ELECTRIC COMPANY

By: Peter J. Stulgis
Peter J. Stulgis, Vice President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Assistant Treasurer

EXETER & HAMPTON ELECTRIC COMPANY

By: Peter J. Stulgis
Peter J. Stulgis, Vice President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Assistant Treasurer

UNITIL Corporation

By: Peter J. Stulgis
Peter J. Stulgis, Vice President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Assistant Treasurer

UNITIL Power Corp.

By: Michael J. Dalton
Michael J. Dalton, President

By:
Douglas K. Macdonald, Treasurer

UNITIL Service Corp.

By: Peter J. Stulgis
Peter J. Stulgis, President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Treasurer

FIRST AMENDMENT TO CASH POOLING
AND LOAN AGREEMENT

This First Amendment to Cash Pooling and Loan Agreement is dated as of the 15th day of December 1986.

WHEREAS, UNITIL Corporation, a New Hampshire corporation ("UNITIL"), Concord Electric Company, a New Hampshire corporation ("Concord"), Exeter & Hampton Electric Company, a New Hampshire corporation ("Exeter"), UNITIL Power Corp., a New Hampshire corporation ("UNITIL Power") and UNITIL Service Corp., a New Hampshire corporation ("UNITIL Service") are parties to a Cash Pooling and Loan Agreement dated as of February 1, 1985 (the "Agreement"); and

WHEREAS, UNITIL has acquired all of the outstanding capital stock of UNITIL Realty Corp., a New Hampshire corporation ("Realty Corp."); and

WHEREAS, Realty Corp. and each of the parties to the Agreement desire that Realty Corp. become a party to the Agreement.

NOW, THEREFORE, in consideration of the foregoing, the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency is hereby acknowledged by each party to the others, the parties hereto agree as follows:

1. Realty Corp. is hereby admitted as a party to the Agreement and shall be considered a "Party" as defined therein for all purposes thereof. By its execution hereof, Realty Corp. agrees to be bound by all provisions of the Agreement as if it were originally a party thereto.

2. All provisions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties have caused this First Amendment to be executed by their respective officers thereunto duly authorized, as of the date first above written.

CONCORD ELECTRIC COMPANY

By: ______________________________
Peter J. Stulgis, Vice President

By: ______________________________
Charles J. Kershaw, Jr., Assistant Treasurer

EXETER & HAMPTON ELECTRIC COMPANY

By: ______________________________
Peter J. Stulgis, Vice President

By: ______________________________
Charles J. Kershaw, Jr., Assistant Treasurer

UNITIL Corporation

By: ______________________________
Peter J. Stulgis, Vice President

By: ______________________________
Charles J. Kershaw, Jr., Assistant Treasurer

UNITIL Power Corporation

By: ______________________________
Michael J. Dalton, President

By: ______________________________
Douglas K. Macdonald, Treasurer

UNITIL Realty Corp.

By: ______________________________
Charles J. Kershaw, Jr., President

By: ______________________________
Richard F. Gilmore, Treasurer

UNITIL Service Corp.

By: ______________________________
Peter J. Stulgis, President

By: ______________________________

SECOND AMENDMENT TO

CASH POOLING AND LOAN AGREEMENT

This Second Amendment to the Cash Pooling and Loan Agreement to become effective at the time of the Mèrger of Fitchburg Gas and Electric Light Company into UNITIL Corporation and dated April 29, 1992.

WHEREAS, UNITIL Corporation, a New Hampshire corporation ("UNITIL"), Concord Electric Company, a New Hampshire corporation ('Concord"), Exeter & Hampton Electric Company, a New Hampshire corporation ('Exeter"), UNITIL Power Corp., a New Hampshire corporation ("UNITIL Power"), UNITIL Realty Corp., a New Hampshire corporation ("UNITIL Realty") and UNITIL Service Corp., a New Hampshire corporation ("UNITIL Service") are parties to a Cash Pooling and Loan Agreement dated as of February 1, 1985, as amended as of December 15, 1986 (the 'Agreement"); and

WHEREAS, UNITIL has acquired through merger all of the outstanding Common Stock of Fitchburg Gas and Electric Light Company, a Massachusetts corporation ("Fitchburg"); and

WHEREAS, UNITIL has become a registered holding company under provisions of the Public Utility Holding Company Act of 1935 ("PUCHA"), and

WHEREAS, Fitchburg and each of the parties to the Agreement desire that Fitchburg become a party to the Agreement and that UNITIL conform to the provisions the PUCHA.

NOW, THEREFORE in consideration of the foregoing, the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency is hereby acknowledged by each party to the others, the parties hereto agree as follows:

1. Fitchburg is hereby admitted as a party to the Agreement and shall be considered a "party" as defined therein for all purposes thereof. By its execution hereof, Fitchburg agrees to be bound by all provisions of the Agreement as if it were originally a party thereto.

2. Effective as of the date of the Merger, UNITIL agrees to no longer request or receive Advances from the Cash Pool, but will receive all other benefits associated with this arrangement and bound by all other provisions of this Agreement;

3. Except as described above, all provisions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties have caused this Second Amendment to be executed by their respective officers thereunto duly authorized, as of the date first above written.

UNITIL CORPORATION

By: Michael J. Dalton
Michael J. Dalton, President

By: Gail S. Brown
Gail S. Brown, Treasurer

CONCORD ELECTRIC COMPANY

By: Michael J. Dalton
Michael J. Dalton, President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Treasurer

EXETER & HAMPTON ELECTRIC COMPANY

By: Michael J. Dalton
Michael J. Dalton, President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Treasurer

FITCHBURG GAS AND ELECTRIC LIGHT COMPANY

By: Frank L. Childs
Frank L. Childs, President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Treasurer

UNITIL POWER CORP.

By: ______________________
Michael J. Dalton, President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Treasurer

UNITIL REALTY CORP.

By: Frank L. Childs
Frank L. Childs, President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Treasurer

UNITIL SERVICE CORP.

By: ______________________
Peter J. Stulgis, President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Treasurer

THIRD PROPOSED AMENDMENT TO

CASH POOLING AND LOAN AGREEMENT

This Third Amendment to the Cash Pooling and Loan Agreement is dated June 1, 1993.

WHEREAS, UNITIL Corporation, a New Hampshire corporation ("UNITIL"), Concord Electric Company, a New Hampshire corporation ("Concord"), Exeter & Hampton Electric Company, a New Hampshire corporation ("Exeter"), Fitchburg Gas and Electric Light Company, a Massachusetts Corporation, UNITIL Power Corp., a New Hampshire corporation ("UNITIL Power"), UNITIL Realty Corp., a New Hampshire corporation ("UNITIL Realty") and UNITIL Service Corp., a New Hampshire corporation ("UNITIL Service") are parties to a Cash Pooling and Loan Agreement dated as of February 1, 1985, as amended; and

WHEREAS, UNITIL has acquired all the outstanding capital stock of UNITIL Resources, Inc., a New Hampshire Corporation ("UNITIL Resources"); and

WHEREAS, UNITIL Resources and each of the parties to the Agreement desire that UNITIL Resources become a party to the Agreement; and

NOW, THEREFORE in consideration of the foregoing, the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency is hereby acknowledged by each party to the others, the parties hereto agree as follows:

1. UNITIL Resources is hereby admitted as a party to the Agreement and shall be considered a "party" as defined therein for all purposes thereof. By its execution hereof, UNITIL Resources agrees to be bound by all provisions of the Agreement as if it were originally a party thereto.

2. All provisions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties have caused this Third Amendment to be executed by their respective officers thereunto duly authorized, as of the date first above written.

UNITIL CORPORATION

By: Michael J. Dalton
Michael J. Dalton, President

By: Gail A. Siart
Gail A. Siart, Treasurer

CONCORD ELECTRIC COMPANY
EXETER & HAMPTON ELECTRIC COMPANY
FITCHBURG GAS AND ELECTRIC LIGHT COMPANY

By: ______________________
Michael J. Dalton, President

By: ______________________
Mark H. Collin, Treasurer

UNITIL POWER CORP.

By: ______________________
James G. Daly, President

By: ______________________
Mark H. Collin, Treasurer

UNITIL REALTY ~~COMPANY~~ CORP.

By: ______________________
Gail A. Siart, President

By: ______________________
Mark H. Collin, Treasurer

UNITIL RESOURCES, INC.

By: ______________________
George R. Gantz, President

By: ______________________
Gail A. Siart, Treasurer

UNITIL SERVICE CORP.

By: ______________________
Peter J. Stulgis, President

By: ______________________
Mark H. Collin, Treasurer

FOURTH AMENDMENT TO

CASH POOLING AND LOAN AGREEMENT

This Fourth Amendment to the Cash Pooling and Loan Agreement is dated as of December 2, 2002.

WHEREAS, Unitil Corporation, a New Hampshire corporation ("Unitil"), Concord Electric Company, a New Hampshire Corporation ("Concord"), Exeter & Hampton Electric Company, a New Hampshire corporation ("Exeter"), Fitchburg Gas and Electric Light Company, a Massachusetts corporation ("FGE"), Unitil Power Corp., a New Hampshire corporation ("UPC"), Unitil Realty Corp., a New Hampshire corporation ("URC"), Unitil Resources, Inc., a New Hampshire Corporation ("URI") and Unitil Service Corp., a New Hampshire corporation ("USC"), are parties to a Cash Pooling and Loan Agreement dated as of February 1, 1985, as amended (the "Cash Pooling Agreement"); and

WHEREAS, effective as of December 2, 2002, Exeter merged with and into Concord and, on that same date, Concord succeeded, by operation of law, to all of Exeter's rights and obligations under the Cash Pooling Agreement; and

WHEREAS, effective as of December 2, 2002, Concord changed its name to Unitil Energy Systems, Inc. ("UES");

NOW, THEREFORE in consideration of the foregoing, the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency is hereby acknowledged by each party to the others, the parties hereto agree as follows:

1. Each of Unitil, FGE, UPC, URC, URI and USC hereby acknowledges, agrees and consents to the succession of UES to all of Exeter's rights and obligations under the Cash Pooling Agreement, and all parties to the Cash Pooling Agreement further agree that the Cash Pooling Agreement be hereby amended to delete all references therein to Exeter and to change all references therein to Concord to UES.

2. Except as described above, all provisions of the Cash Pooling Agreement shall remain in full force and effect without amendment.

IN WITNESS WHEREOF, the parties have caused this Fourth Amendment to be executed by their respective officers thereunto duly authorized, as of the date first above written.

UNITIL CORPORATION

By: Michael J Dalton President
Name: MICHAEL J DALTON

By: Mark H. Collin
Name: Mark H. Collin, Treasurer

FITCHBURG GAS AND ELECTRIC LIGHT COMPANY

By: Michael J Dalton President
Name: MICHAEL J DALTON

By: Mark H. Collin
Name: Mark H. Collin, Treasurer

UNITIL ENERGY SYSTEMS, INC.

By: Michael J Dalton - President
Name: MICHAEL J DALTON

By: Mark H. Collin
Name: Mark H. Collin, Treasurer

UNITIL POWER CORP.

By: David K Foote
Name: David K. Foote, President

By: Mark H. Collin
Name: Mark H. Collin, Treasurer

UNITIL REALTY CORP.

By: Mark H. Collin
Name: Mark H. Collin, VP & Treasurer

By: Laurence M. Brock
Name: Laurence M. Brock, Controller

UNITIL RESOURCES, INC.

By: Robert G. Schoenberger
Name: Robert G. Schoenberger, President

By: Mark H. Collin
Name: Mark H. Collin, VP & Treasurer

UNITIL SERVICE CORP.

By: Mark H. Collin
Name: Mark H. Collin, VP & Treasurer

By: Laurence M. Brock
Name: Laurence M. Brock, Controller

FIFTH AMENDMENT TO

CASH POOLING AND LOAN AGREEMENT

This Fifth Amendment to the Cash Pooling and Loan Agreement is dated as of August 12, 2005.

WHEREAS, Unitil Corporation, a New Hampshire corporation ("Unitil"), Unitil Energy Services, Inc., a New Hampshire corporation ("UES"), Fitchburg Gas and Electric Light Company, a Massachusetts corporation ("FGE"), Unitil Power Corp., a New Hampshire corporation ("UPC"), Unitil Realty Corp., a New Hampshire corporation ("URC"), Unitil Resources, Inc., a New Hampshire corporation ("URI") and Unitil Service Corp., a New Hampshire corporation ("USC"), are parties to a Cash Pooling and Loan Agreement dated as of February 1, 1985, as previously amended (the "Cash Pooling Agreement"); and

WHEREAS, effective as of August 12, 2005, the Securities and Exchange Commission (the "SEC") granted authority for the parties to engage in certain interest rate hedging transactions including in connection with funds used in the operation of this Cash Pooling Agreement;

NOW, THEREFORE in consideration of the foregoing, the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency is hereby acknowledged by each party to the others, the parties hereto agree as follows:

1. Section 4 of the Cash Pooling Agreement is hereby revised to add the following new second paragraph thereto:

> The benefits, and/or costs and fees, of any hedging instrument(s) entered into by a lending Party with respect to funds contributed to the Cash Pool hereunder will be passed through to each Party borrowing those funds through the Cash Pool as part of, and pursuant to the same allocation method as, interest charges calculated hereunder. Therefore, on a monthly basis, the income and/or costs and fees of the hedging instrument(s) shall be allocated to each Party on a pro rata basis in the proportion which each Party's aggregate principal amount of Advances during the calendar month bore to the aggregate principal amount of all Advances for such calendar month.

2. Except as described above, all provisions of the Cash Pooling Agreement shall remain in full force and effect without amendment.

IN WITNESS WHEREOF, the parties hereto have caused this Fifth Amendment to be executed by their respective officers thereunto duly authorized, as of the date first above written.

UNITIL CORPORATION

By: ____________________
Robert G. Schoenberger, President

By: ____________________
Mark H. Collin, Treasurer

FITCHBURG GAS AND ELECTRIC LIGHT COMPANY

By: ____________________
Robert G. Schoenberger, President

By: ____________________
Mark H. Collin, Treasurer

UNITIL ENERGY SYSTEMS, INC.

By: ____________________
Robert G. Schoenberger, President

By: ____________________
Mark H. Collin, Treasurer

UNITIL POWER CORP.

By: ____________________
David K. Foote, President

By: ____________________
Mark H. Collin, Treasurer

UNITIL REALTY CORP.

By: ____________________
George E. Long, Jr., President

By: ____________________
Mark H. Collin, Treasurer

UNITIL RESOURCES, INC.

By: Todd R Black
Todd R. Black, President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Assistant Treasurer

UNITIL SERVICE CORP.

By: Mark H Collin
Mark H. Collin, President

By: Charles J. Kershaw, Jr.
Charles J. Kershaw, Jr., Assistant Treasurer

State of New Hampshire
Public Utilities Commission

Unitil Energy Systems, Inc.
DG 07-072
Responses to Staff Data Requests

Request No. Staff-1-5:
Please provide the following information for each month since the Company commenced participation in its or its parent's money pool through December 2007;

a. The Company's average monthly loan balance;
b. The Company's average monthly investment balance;
c. The Company's interest expense accrued monthly plus the effective interest rate;
d. The Company's interest income accrued monthly; and
e. Fees assessed monthly to the Company related to its participation in the money pool.

Response:
As discussed with Staff Counsel, Unitil has provided the requested information for the five year period January 2002 through December 2007.

a. Refer to Staff 1-5, Attachment 1, column (a).
b. Refer to Staff 1-5, Attachment 1, column (d).
c. Refer to Staff 1-5, Attachment 1, columns (b) and (c).
d. Refer to Staff 1-5, Attachment 1, columns (e) and (f).
e. Refer to Staff 1-5, Attachment 1, column (g).

Person Responsible: Robyn Tafoya

Date: March 10, 2008

Unitil Energy Systems, Inc.
Cash Pool Participation

	(a) Average Monthly Loan Balance	(b) Interest Expense Accrued	(c) Effective Interest Expense Rate	(d) Average Monthly Investment Balance	(e) Interest Income Accrued Monthly	(f) Effective Interest Income Rate	(g) Fees Assessed Monthly
2003							
January	$ 5,631,360	$ 8,982	1.88%	$ 177,669	$ 248	1.64%	$ (798)
February	8,039,160	10,069	1.63%	2,100	3	1.66%	1,521
March	7,557,349	11,994	1.87%	38,163	53	1.64%	1,995
April	7,612,520	11,194	1.79%	24,797	36	1.76%	1,671
May	8,377,848	13,388	1.88%	-	-		1,822
June	14,773,635	21,734	1.79%	-	-		2,988
July	13,698,796	19,907	1.71%	-	-		1,920
August	9,970,544	14,806	1.75%	562,968	776	1.62%	2,018
September	9,373,858	12,994	1.69%	701,337	881	1.53%	2,041
October	9,466,491	13,731	1.71%	424,449	546	1.52%	3,921
November	9,250,234	12,019	1.44%	3,053,339	3,897	1.41%	1,876
December	8,460,821	11,115	1.55%	71,539	92	1.52%	2,232
2004							
January	$ 7,504,016	$ 9,903	1.56%	-	-		$ 3,524
February	5,436,582	6,704	1.56%	-	-		1,831
March	4,103,428	5,396	1.55%	-	-		4,632
April	3,692,904	4,622	1.53%	-	-		3,067
May	4,274,097	5,539	1.53%	-	-		2,240
June	3,370,784	4,347	1.57%	-	-		3,815
July	4,159,214	6,359	1.81%	-	-		4,185
August	2,838,968	4,758	1.98%	25,113	42	1.96%	1,439
September	2,373,810	4,228	2.17%	132,141	226	2.09%	2,601
October	2,697,500	5,302	2.32%	5,726	11	2.30%	2,724
November	2,140,196	4,382	2.27%	116,124	240	2.30%	1,554
December	3,216,414	7,398	2.72%	-	-		2,519
2005							
January	$ 4,031,823	$ 9,734	2.84%	-	-		$ 1,765
February	3,586,977	8,428	3.06%	11,005	26	3.05%	1,313
March	3,256,538	9,038	3.27%	4,273	12	3.17%	1,920
April	2,428,707	6,693	3.35%	32,633	89	3.33%	1,336
May	2,238,750	6,786	3.57%	42,312	126	3.50%	1,330
June	2,490,072	7,402	3.62%	1,359	4	3.67%	2,167
July	3,347,170	10,881	3.83%	-	-		1,554
August	3,399,918	11,535	3.99%	-	-		1,317
September	1,674,887	5,844	4.25%	27,318	85	3.78%	1,897
October	2,802,011	10,371	4.36%	-	-		1,657
November	4,145,953	15,662	4.18%	-	-		1,775
December	4,570,576	18,045	4.65%	-	-		2,036

Unitil Energy Systems, Inc.
Cash Pool Participation

	(a) Average Monthly Loan Balance	(b) Interest Expense Accrued	(c) Effective Interest Expense Rate	(d) Average Monthly Investment Balance	(e) Interest Income Accrued Monthly	(f) Effective Interest Income Rate	(g) Fees Assessed Monthly
2006							
January	$ 8,951,469	$ 36,789	4.84%	-	-		$ 1,583
February	11,698,817	45,292	5.05%	-	-		1,844
March	12,729,037	55,198	5.11%	-	-		1,959
April	12,879,574	56,273	5.32%	-	-		2,266
May	13,874,397	64,837	5.50%	-	-		1,288
June	12,837,660	58,741	5.57%	-	-		2,419
July	12,820,733	63,291	5.81%	-	-		1,584
August	9,760,754	48,218	5.82%	-	-		1,646
September	10,668,807	51,006	5.82%	24,397	172	8.56%	2,716
October	3,140,719	15,516	5.82%	-	-		1,586
November	3,944,292	18,847	5.28%	-	-		1,643
December	5,031,844	24,606	5.76%	-	-		1,908
2007							
January	$ 7,563,332	$ 37,029	5.76%	-	-		$ 3,154
February	8,819,236	38,916	5.75%	-	-		1,575
March	10,189,229	50,031	5.78%	-	-		2,522
April	11,936,961	56,696	5.78%	-	-		3,847
May	3,872,781	18,977	5.77%	-	-		1,554
June	4,744,613	22,448	5.76%	-	-		5,251
July	6,384,910	31,279	5.77%	-	-		3,668
August	7,188,906	35,024	5.74%	-	-		1,785
September	8,026,585	37,019	5.61%	-	-		4,766
October	8,651,088	39,045	5.31%	-	-		2,805
November	8,524,199	35,773	4.64%	-	-		2,291
December	9,456,146	39,716	4.95%	-	-		5,328

Electric and Gas Carrying Charge Rate on Supply-related Cash Working Capital
DG 07-072

Data Request Northern 2-4

Dated: July 10, 2008
Page 1 of 1

Witness: **James Rothschild**
Request from: **Northern Utilities, Inc.**

Question: Please refer to JAR Schedule 1 which is attached to Mr. Rothschild's revised Direct Testimony.

2-4 a. At the top of the "Decision Tree" is the question "Does the company have at least enough short-term debt to finance: a) the amount of short-term debt financing rate base?" Is the world "have" as used in this question intended to mean the amount of short-term debt appearing on company's books? If not, please explain.

2-4 b. Please specify what is meant by "rate base" as used in the question set forth above, i.e. explain all of the rate base expenses that Mr. Rothschild believes should be financed with short-term debt instead of long-term debt.

2-4 c. Please explain what is meant by "high enough" as used in the "Decision Tree" box containing the question. "Is the short-term debt being used by the company "high enough?"

Response: a)Yes b) Rate base is the net used and useful assets being provided by a utility company to provide save and adequate utility service. Rate base does not include expenses. c) At a reasonable level to properly utilize this low cost source of capital.

Electric and Gas Carrying Charge Rate on Supply-related Cash Working Capital
DG 07-072

Data Request Northern 2-5

Dated: July 10, 2008
Page 1 of 1

Witness: **James Rothschild**
Request from: **Northern Utilities, Inc.**

Question: Please state what Mr. Rothschild believes would be the appropriate interest rate to be applied to supply working capital if a company carries no short-term debt on its books and has no short-term debt in its Commission-approved capital structure.

Response: An interest rate that is typical of the rate being paid by similar companies at approximately the same time.

Electric and Gas Carrying Charge Rate on Supply-related Cash Working Capital
DG 07-072

Data Request National Grid 1-1

Dated: June 2, 2008
Page 1 of 1

Witness: James Rothschild
Request from: National Grid

Question: Referring to the testimony of Mr. Rothschild and the response to the question beginning on Page 10, Line 15, how is an "adequate amount of short-term debt" or a "reasonable amount of short-term debt" determined?

Response : There is no one absolute way to determine the adequate amount of short-term debt. However, one way would be to use data from a sample of similarly situated companies to determine an "adequate" or "reasonable" level. In this case, Mr. Rothschild has used as a guideline the actual amount of short-term debt included in the capital structure in the most recent base rate proceeding.

RESEARCH Print Ready

Key Credit Factors For U.S. Natural Gas Distributors

Current Ratings >>

Publication date: 28-Feb-2006
Primary Credit Analyst: Brian Janiak, New York (1) 212-438-5025; brian_janiak@standardandpoors.com

On its surface, analyzing U.S. gas distributors' credit quality would appear straightforward. After all, the core business simply involves distributing a commodity to mainly captive customers within a given service territory under a regulated environment. What could be more uncomplicated or have lower business risk? But, in reality, the universe of local natural gas distribution companies (LDCs) that Standard & Poor's Ratings Services rates has great credit diversity, as evidenced by ratings ranging from 'AA-' to 'BB-'.

Thus, the business risk profile is a defining attribute of an LDC's creditworthiness, as is the case with any corporate issuer. In most cases, Standard & Poor's categorizes pure LDCs as having well above average ('1' and '2') or above average ('3') business profiles (business profiles are categorized from '1' (strong) to '10' (weak)). Nonregulated business segments outside the relatively low-risk gas distribution arena generally weaken a company's business risk profile.

Clearly, higher-risk activities pressure the consolidated profiles and often require stronger financial performance to merit the same rating as a pure LDC. ONEOK Inc. (BBB/Watch Neg/A-2), an extreme example, has gas gathering and processing and energy trading and marketing activities that account for roughly two-thirds of its business mix and elevate the company's business profile to '6'. The inherent volatility of ONEOK's higher-risk businesses dwarfs the relative stability of its regulated gas distribution operations and exposes the company to greater cash flow volatility.

We look at five broad categories when reviewing an LDC's business risk profile: regulation, markets and competition, operations, management, and diversified activities. Below, key factors are highlighted and specific LDCs are identified that demonstrate strong or weak characteristics along these lines.

The business risk profiles of 14 LDCs operating in the U.S. can be seen in table 1.

Table 1 | **Download Table**

U.S. Gas Distributors Comparison

Company	Rating	Business profile	Gas adjustment mechanism	Supply position	Storage capacity (%)	Hedging policy in place
AGL Resources Inc.	A-/Negative/A-2	4	Yes	4	35	Yes
Cascade Natural Gas Corp.	BBB+/Stable/--	2	Yes	3	25	Yes
New Jersey Natural Gas Co.	A+/Stable/A-1	2	Yes	2	60	Yes

Nicor Inc.	AA/Negative/A-1+	3	Yes	8	55	Yes
Northwest Natural Gas Co.	A+/Stable/A-1	1	Yes	1	58	Yes
ONEOK Inc.	BBB/Watch Neg/A-2	7	Yes	8	15	Yes
Peoples Energy Corp.	A-/Negative/A-2	5	Yes	6	60	Yes
Piedmont Natural Gas Co. Inc.	A/Stable/--	2	Yes	5	50	Yes
SEMCO Energy Inc.	BB-/Stable/--	5	yes	4	35	Yes
South Jersey Gas Co.	BBB+/Neg/--	3	Yes	2	40	Yes
Southern Union Co.	BBB/Negative/--	3	Yes	8	30	Yes
Southwest Gas Corp.	BBB-/Stable/--	3	Yes	6	10	Yes
UGI Utilities Inc.	BBB/Watch Neg/--	4	Yes	3	N.A.	Yes
WGL Holdings Inc.	AA-/Negative/A-1	3	Yes	4	30	Yes

N.A.--Not available.

Regulation

Table 2 | **Download Table**

Regulatory Comparison

Company	Weather normalization	Allowed ROE (%)	Earnings sharing	Regulatory protection of LDC finances
AGL Resources Inc.	Yes	11 to 11.5	Yes	No
Cascade Natural Gas Corp.	No	11 to 11.5	Yes	No
New Jersey Natural Gas Co.	Yes	> 11.5	Yes	No
Nicor Inc.	Yes	11 to 11.5	No	No
Northwest Natural Gas Co.	Yes	< 11	Yes	No
ONEOK Inc.	Yes	N.A.	No	No
People's Energy Corp.	No	11 to 11.5	No	No
Piedmont Natural Gas Co. Inc.	Yes	> 11.5	No	No
SEMCO Energy Inc.	No	11 to 11.5	No	No
South Jersey Gas Co.	Yes	< 11	Yes	No
Southern Union Co.	No	< 11	Yes	Yes
Southwest Gas Corp.	No	< 11	No	No
UGI Utilities Inc.	No	N.A.	No	Yes
WGL Holdings Inc.	No	< 11	No	No

N.A--Not available. LDC--Local distribution company. > -- Greater than. < -- Less than.

A prolonged period of high natural gas prices without timely reimbursement of deferred gas cost balances will rapidly deplete an LDC's liquidity. Given today's high and volatile natural gas prices, maintaining strong credit quality necessitates that ratepayers bear the responsibility for commodity costs. Automatic pass-through mechanisms linked to gas price indices provide the strongest level of support because they largely remove regulatory risk from the picture. Lesser

New Jersey LDCs, for instance, can adjust rates up to three times a year without an official rate case. Although this acts as a pressure release valve in high-price environments, it still exposes LDCs to regulatory uncertainty when the price of gas rises above a preset level. In such circumstances, history provides Standard & Poor's with its best guide to regulators' willingness to accommodate LDCs in their jurisdiction.

Due to the extreme volatility and significant increase in gas prices over the past few heating seasons, more state regulators have revised the timing of their gas adjustment clauses by providing monthly gas adjustment clauses rather than the seasonal end of the heating season adjustment. This expedited treatment helps LDCs to reduce any regulatory lag to recover costs and streamline working capital needs, which in turn should allow LDCs to modestly temper rising gas bills to their customers. In today's new cost paradigm, how quickly the purchased-gas adjustment is "trued up" can have a significant bearing on an LDC's credit quality. Slow recovery could impinge on the firm's liquidity as short-term funds are consumed to finance high-cost gas working-capital needs. In turn, this may necessitate a larger bank line that increases borrowing costs or increased debt levels to term out the short-term borrowings with medium-term notes, potentially increasing pressure on a company's financial profile.

However, some companies like Piedmont Natural Gas Co. Inc. (A/Stable/--) have actually begun the new year by requesting the North Carolina Utilities Commission to reduce the wholesale benchmark to calculate its retail rates from an approved $13 per thousand cubic feet (mcf) in December 2005 to $11 per mcf in January, and make the change effective as of Jan. 1, 2006. This unprecedented request is primarily due to the recent decline in gas prices from peak highs in December 2005 of $15.78 per million Btu to about $7.20 per million Btu today. This represents an example of a working relationship between regulators and LDCs to contain high gas costs and customers' bills.

Weather protection

An LDC's ability to collect a consistent cash stream, regardless of a service territory's weather conditions, provides an important level of stability. Several warmer-than-normal winters or cooler-than-normal summers could significantly change an LDC's financial health unless regulators provide normalization measures. Such protection can be achieved via a normalization clause or rate design. Some jurisdictions such as New Jersey recognize the potential implications of adverse temperatures on unprotected LDCs and provide support accordingly. Other jurisdictions are not as accommodating. SEMCO Energy Inc. and Southwest Gas Corp. have seen their financial profiles weaken partially in response to significant adverse weather conditions.

The growing popularity of weather derivatives serves as an additional avenue for LDCs to pursue weather protection. Regulators that recognize these products as a way to reduce risk for LDCs and their ratepayers tend to allow for derivative cost pass-throughs and do not question the prudence of the strategy.

Earnings sharing

Mechanisms that mandate earnings sharing between shareholders and ratepayers compensate well run LDCs with a share of the profits when companies earn more than their allowed ROE. This gives management an incentive to make their companies' operations more efficient. Sharing also provides downside protection to shareholders and partially shields LDCs during troubled times by, in effect, requiring ratepayers to foot the bill for a portion of lost earnings. AGL Resources Inc., Cascade Natural Gas Corp., Northwest Natural Gas Co., and Southern Union Co. all benefit from earnings sharing in at least a portion of their respective service territories.

Allowed ROE

Like all other for-profit businesses, earning a healthy ROE helps drive success. Fairly set ROEs provide LDCs with capital for system maintenance, growth projects, and capital structure improvement.

Other regulatory mechanisms

Both regulators and LDCs are increasing customer-education programs on energy efficiency and conservation. Lawmakers, state regulators, and LDCs are in preliminary discussions to potentially restructure the current rate structures to encourage these goals of energy conservation and efficiency without hurting an LDC's bottom line and still allow companies to achieve their approved regulated rate of return. In essence, "conservation tariffs" would aim to decouple earnings and rates of return from delivered volumes and should eliminate a current major disincentive for utilities to develop such conservation programs. This would also better align the interest of consumers with utility shareholders by implementing innovative rate designs that would encourage energy conservation and efficiency.

Northwest Natural has a very constructive relationship with the Oregon Public Utility Commission (OPUC) that has resulted in favorable rate design and incentive programs. Northwest Natural is one of the few LDCs that operates under a conservation tariff that insulates its margins from a decline in gas usage levels. Northwest Natural also has a purchased-gas adjustment tariff under which 67% of any difference between actual gas costs and estimated costs (incorporated into rates) will be deferred and charged to customers in subsequent periods, providing protection against commodity price volatility. Finally, Northwest Natural also operates under a weather-normalization tariff that neutralizes 80% of the impact of varying weather patterns on a monthly basis without any dead bands. Oregon regulation also provides for a future test year for ratemaking purposes, thereby minimizing the potential for regulatory lag. All these measures provide for highly stable revenues and margins and contribute to Northwest Natural's solid and very low risk business profile of '1'.

Financial protection from affiliates

Earning a good return provides little benefit if the corporate entity squanders the proceeds. An LDC's credit quality suffers when parent or affiliate companies extract cash proceeds and invest in higher-risk businesses without producing commensurate returns. Regulatory restrictions preventing such dividend flow or mandating minimum equity layers buffer LDCs from more aggressive management teams. Northwest Natural benefits from strong regulatory oversight in Oregon that serves as a template for protecting an LDC's financial interests. In Missouri, regulators have restricted Southern Union from further investment in Panhandle Eastern Pipe Line LLC subsequent to its significant acquisition of the pipeline from CMS Energy Corp. WGL Holdings Inc.'s LDC must gain prior approval from Virginia's regulators to provide intercompany loans to its parent or affiliates, thus contributing to its credit strength. These protective measures provide an added degree of comfort for bondholders.

Markets And Competition

Table 3 | **Download Table**

Markets and Competition Comparison

Company	Service territory growth (%)	Service territory saturation (%)	Customer mix* (%)
AGL Resources Inc.	1.5 to 2.5	N.A.	80 to 90
Cascade Natural Gas Corp.	> 2.5	< 60	< 80
New Jersey Natural Gas Co.	> 2.5	> 90	80 to 90
Nicor Inc.	1.5 to 2.0	> 90	< 80
Northwest Natural Gas Co.	> 2.5	< 60	80 to 90
ONEOK Inc.	< 1.5	> 90	> 90

People's Energy Corp.	> 2.5	< 60	80 to 90
Piedmont Natural Gas Co. Inc.	> 2.5	< 60	80 to 90
SEMCO Energy Inc.	1.5 to 2.0	60 to 90	< 80
South Jersey Gas Co.	> 2.5	60 to 90	80 to 90
Southern Union Co.	< 1.5	< 60	80 to 90
Southwest Gas Corp.	> 2.5	< 60	80 to 90
UGI Utilities Inc.	> 2.5	60 to 90	< 80
WGL Holdings Inc.	> 2.5	< 60	80 to 90

*Customer mix defined as residential and commercial margins as % of total gross margins. > -- Greater than. < -- Less than.

Service territory growth
High growth within a service territory due to population influx and new construction could lead to an LDC's greater profitability or rate stability. However, as evidenced by Southwest Gas' struggles, high growth sometimes cuts both ways. Arizona and Nevada benefit from rapid population growth, but the slow pace of regulatory rate adjustments acts as a drag on Southwest Gas' financial ratios because revenues fail to adequately compensate the LDC for its growth capital expenditures on a timely basis. Slower growth in Illinois, on the other hand, provides limited upside for companies, such as Nicor Gas Co. and Peoples Energy Corp., but alleviates the associated regulatory dependence faced by Southwest Gas.

Service territory saturation
Customer saturation refers to the proportion of customers in a given area that use their LDC's services. LDCs that operate in service territories with low growth potential still can grow at healthy rates if a relatively low level of customer saturation permeates the service territory. For example, customers who convert to natural gas from other fuel sources (such as oil) provide growth opportunities to LDCs operating in low population growth service areas. Northwest Natural benefits from its sub-50% saturation rate and good service territory growth, while Peoples Energy faces a disadvantageous combination of a relatively high saturation rate and low service territory growth.

Customer mix
An LDC serving a large proportion of industrial or wholesale customers faces greater instability than an LDC serving only residential customers. Nicor and Peoples Energy, for instance, serve a broad customer base consisting of many small retail users, as opposed to a few large industrial users, which reduces dependence on individual customers. LDCs that depend on the sustainability of a few key industrial users carry not only gas distribution risk, but also business risk associated with the large customers. Furthermore, large users often have greater financial incentive to switch to alternative fuel sources because of extreme input cost sensitivity in certain energy-intensive industries.

Protection against bypass
Due to their proximity to interstate gas pipelines, some large customers have the ability to directly tie into a transmission line and completely bypass LDCs' services. Although such pipelines provide key sources of gas supply for LDCs, it is important to recognize this bypass risk. Ideally located LDCs have adequate transmission access but have industrial customers far from interstate pipelines.

Wealth demographics
A wealthy customer base reduces the risk of customer nonpayment and often translates into less resistance to distribution rate increases. Furthermore, wealthy customers are less sensitive to their marginal gas consumption, which can lead to higher usage. Suburban areas of New Jersey--outside of New York City and Philadelphia--offer examples of high-wealth customer concentrations that benefit the regional LDCs.

Operations

Supply position
Drawing from a single interstate pipeline or relying on a particular gas basin exposes LDCs to event risk and negative supply shocks, respectively. The ability to access multiple sources of gas supply through multiple pipelines protects LDCs from such disruptions. With its strategic location in Chicago, Ill., Peoples Energy has an ideal supply position. The company has direct interconnections to six major pipelines (Natural Gas Pipeline Co. of America, ANR Pipeline Co., Trunkline Gas Co., Midwestern Gas Transmission Co., Northern Border Pipeline Co., and Alliance Pipeline L.P.) and can draw gas from the Midcontinent, Gulf Coast, and Canada. The numerous pipeline connections allow the company to negotiate gas purchases and storage arrangements at competitive prices.

Storage position
Adequate storage access not only helps supply incremental gas needed to meet peak demand, but also provides opportunities for LDCs without purchased-gas adjustment clauses to arbitrage seasonal pricing fluctuations. LDCs benefit from storage if the cost of buying peak gas exceeds the cost of making off-season purchases and the associated carrying cost. Northwest Natural can meet more than 60% of peak demand with company-owned storage, leased storage, and recall agreements. Such storage has lowered the company's average commodity costs and allowed it to meet peak demand without having to pay for additional transportation costs.

System condition
Outdated systems requiring extensive maintenance and capital expenditures lower LDCs' profitability and efficiency metrics. Newly installed systems mainly consisting of plastic pipe require limited expenditures over the long term compared with older, cast-iron systems that need replacing as they age. In addition, LDCs generate operational efficiencies through the use of new technology. Technology allows Southwest Gas field employees to receive work orders without driving to the office in the morning and read meters without leaving their vehicles. Although often involving material upfront costs, such technological improvements provide significant long-term savings.

Hedging
LDCs can hedge against gas price volatility by using financial instruments and locking in long-term purchase contracts with its suppliers. The hedging of fixed-price purchases reduces exposure to physical market price volatility, preserves the value of storage inventories, and provides risk-management services to a variety of customers. Those companies that have locked in prices through long-term contracts, financial instruments, or both that are below the high average prices over the past three heating seasons have reduced their exposure to high gas prices. Many LDCs' hedging programs need to be preapproved by regulators. We view prudent, consistent hedging programs that have been preapproved by regulators as a credit strength. For example, Piedmont Natural Gas provides a hedging program, which requires preapproval by its regulators.

Management
As in all business segments, ownership structure, management practices, internal controls, corporate governance, and financial disclosure policies fall under the management umbrella and are all regularly examined as part of our ratings methodology for LDCs.

Within the ownership structure analysis, links to parent companies or affiliates are important considerations. Ownership by stronger or weaker parents substantially affects the rated entity's credit quality. The nature of the owner--holding company or strategically linked business--can also hold significant implications for business and financial aspects of the rated entity. Standard & Poor's deems many LDCs to have the same creditworthiness as other entities within their corporate structure because of strategic linkages and the free flow of funds among the entities.

Assessment of management personnel and practices is an especially significant determinant of a rating. Standard & Poor's analysis considers many factors that pertain to management, including track record and competence, management background and reputation, and management depth and turnover. Business strategies that stray from core competencies, initiatives that bear elevated risk, and actions inconsistent with public or private statements detract from credit quality. We place a higher degree of confidence in management teams that possess significant industry experience, consistently meet or exceed forecast projections, and deal openly with pressing credit issues.

Financial disclosure and management oversight help round out the broader area of governance. Does an impartial board of directors help monitor critical decisions? Are all potential conflicts of interest disclosed in a timely manner? Are all SEC filings on time? The answers to these questions help provide intangibles to the rating process.

Rating Actions

There have been several adverse rating actions in the LDC universe over the past three to four heating seasons (36-40 months) for a variety of reasons, with 10 outlook revisions to negative, five CreditWatch placements with negative implications, and five downgrades. During 2005, there were two outlook revisions (one to negative from stable and one to stable from positive), one CreditWatch placement with negative implications, and one downgrade compared with only one upgrade that occurred in early January 2005. Thus far in 2006, there has been two rating actions, with a negative outlook revision from stable and a CreditWatch placement with negative implications, due to a combination of increased regulatory uncertainty and increased exposure to nonregulated activities.

These adverse rating actions have been due to some combination of the following:

- Sustained high leverage and weaker-than-expected credit protection measures,
- Increased exposure to, or investment in, nonregulated businesses,
- Increased debt-financed acquisitions or capital investments, and
- Weak regulatory mechanisms and support.

Conversely, the favorable rating actions during the past three heating seasons, which have been more modest, have consisted of three upgrades, one outlook revision to positive (which recently was revised back to stable in 2005), and two rating affirmations with an outlook revision to stable from negative. These positive rating actions have been attributable to:

- Increasing customer growth and improving cash flow and financial profile, while maintaining sound liquidity,
- Prudent financings by using a combination of debt and equity as well as the successful integration of acquisitions in certain cases, and
- Demonstrated strength of regulatory support and rate mechanisms during challenging, high natural gas price heating seasons.

The outlook for the LDC universe continues to have some negative pressures with eight out of the 14 rated LDCs possessing a negative outlook or CreditWatch with negative implications, and no company with a positive outlook. The remaining six LDCs have a stable outlook (two of which were recently downgraded in 2005). In general, the majority of the LDCs possess 'A' ratings, a stable outlook, or both which represent our general view of LDCs' cash-flow stability and low business risk profiles.

Nevertheless, current high gas prices will remain a challenge for all LDCs and may further pressure ratings for those LDCs that have a negative outlook and whose financial measures are somewhat stretched for their current ratings. In addition, management's financial policy and commitment to credit quality will also play an integral role in a company's ability to manage and sustain its credit quality during a fourth consecutive heating season with a higher-than-average natural gas pricing environment.

Table 4 | **Download Table**

Financial Profile Comparison*

Company	FFO interest coverage (x)	FFO to total debt (%)	Net cash flow/capital expenditures (%)	Discretionary cash flow (mil. $)	Average return on capital 2002-2004 (%)	Total debt to total capital (%)
AGL Resources Inc.	5.0	18.4	86.7	(52.0)	10.5	59.2
Cascade Natural Gas Corp.	4.3	24.5	79.9	(18.3)	9.6	59.8
New Jersey Natural Gas Co.	7.0	19.1	87.3	(157.9)	12.4	56.6
Nicor Inc.	6.6	26.1	96.4	45.3	9.7	58.3
Northwest Natural Gas Co.	4.2	20.0	51.9	67.2	8.8	51.4
ONEOK Inc.	4.8	19.8	169.5	(148.5)	10.5	63.8
People's Energy Corp.	4.9	20.6	63.3	(66.6)	8.8	52.9
Piedmont Natural Gas Co. Inc.	3.8	16.4	58.1	(50.7)	10.9	47.8
SEMCO Energy Inc.	1.8	6.7	101.6	6.0	7.1	71.8
South Jersey Gas Co.	5.3	20.9	89.6	(15.3)	9.8	55.2
Southern Union Co.	3.4	12.3	96.0	(28.6)	2.9	55.0
Southwest Gas Corp.	3.6	18.0	70.3	(180.0)	7.1	66.8
UGI Utilities Inc.	3.5	21.4	204.8	67.8	13.0	65.6
WGL Holdings Inc.	5.5	26.4	131.4	66.4	10.0	46.8

*Financials as of fiscal year-end 2004. FFO--Funds from operations.

We expect many of these companies listed in the table above to either maintain or continue to gradually improve their financial profiles. Still, the outlook for six LDCs is negative. The negative outlook for Southern Union, Nicor Inc., and AGL primarily reflects their increased financial leverage and weakened credit protection measures and their respective near-term challenges to significantly improve their financial profiles. In addition, AGL's and UGI Utilities Inc.'s negative outlooks are also related to their increased exposure to nonregulated operations (i.e., energy marketing and propane business) increasing their business risk profiles and need to generate stronger financial measures commensurate with their respective ratings. Finally, the negative outlook on WGL reflects its absence of weather normalization and increased exposure to its retail energy marketing business, which could further reduce the company's current liquidity cushion.

Cascade Natural Gas has a positive outlook tied to its improving financial profile based on solid customer growth, a reliable purchased-gas adjustment mechanism that ensures full recovery of gas supply costs, and a manageable capital spending program that should allow the company to continue to meet its debt reduction plans in 2006.

The Credit Challenges Ahead

Regulators will always have to balance timely and prudent gas cost recovery with ratepayer resistance to rising gas bills. Continued regulatory support is paramount to credit quality for LDCs, especially during periods of prolonged high natural gas prices and the likely need for LDCs to fund working capital needs with additional debt. LDCs will remain challenged in this elevated gas price environment to reduce short-term debt balances and avoid creeping debt leverage, which could trigger deterioration in credit quality.

Peoples energy is an example of how an uncertain and challenging regulatory environment can put pressure on a company's credit quality. In February 2006, Standard & Poor's revised the outlook on Peoples Energy to negative from stable due to the challenging regulatory climate in Illinois, which has become highly politicized as the historically supportive gas distribution regulation has become more contentious. In addition, the outlook revision also incorporated the company's continued increased investment in nonregulated diversified businesses, which include oil and gas production, power generation, midstream services, and retail energy services.

In the end, a company's business risk profile must be analyzed in conjunction with its financial risk profile (see table 4). Because investors in the LDC universe rely on stable cash flow, strong financial metrics may simply overpower chinks in the business profile armor. Nicor's stratospheric cash flow ratios drive the company's 'AA' rating despite average regulatory, market, and competition characteristics. Good financial metrics at New Jersey Natural Gas also support that company's strong rating.

More recently, Standard & Poor's has further scrutinized the financial profiles and overall liquidity for companies that have increased their exposure to nonregulated energy trading activities. For example, AGL's credit quality is tempered by the heavy liquidity requirements of its nonregulated businesses (primarily through its subsidiary Sequent, a gas marketing and trading company) and the company's growth strategy that could potentially increase its exposure to unregulated activities (see table 5).

Table 5 | **Download Table**

Diversified Activities Comparison

Company	Diversified activities as % of consolidated entity	Main areas of focus
AGL Resources Inc.	20	Wholesale and retail services
Cascade Natural Gas Corp.	Less than 5	Retail gas marketing to a small number of large customers
New Jersey Natural Gas Co.	22	Natural gas utility, energy marketing, and pipeline capacity management
Nicor Inc.	10	Shipping
Northwest Natural Gas Co.	9	Interstate gas storage
ONEOK Inc.	70	Gas gathering and processing; energy marketing and trading
Peoples Energy Corp.	10	Gas distribution

Piedmont Natural Gas Co. Inc.	10	Pipelines and retail gas marketing
SEMCO Energy Inc.	90	Propane and retail energy services
South Jersey Gas Co.	30	Natural gas utility, energy marketing, and marina energy (Borgata project in Atlantic City, N.J.)
Southern Union Co.	88	Natural gas pipelines; gas gathering and processing
Southwest Gas Corp.	Less than 10	Construction
UGI Utilities Inc.	50	Propane and retail energy services
WGL Holdings Inc.	2	Retail gas

Electric and Gas Carrying Charge Rate on Supply-related Cash Working Capital
DG 07-072

Data Request UES 2-2

Dated: July 10, 2008
Page 1 of 1

Witness: **James Rothschild**
Request from: **Unitil Energy Systems, Inc.**

Question: By what criteria should the Commission determine whether a company "failed to properly avail itself of short term debt"? Please be specific and provide a list and description of all elements that would satisfy such a determination. How often and when would such a determination be made? On a monthly basis? On a quarterly basis? Annually?

Response: Mr. Rothschild has not formulated a specific recommendation on this topic.

Electric and Gas Carrying Charge Rate on Supply-related Cash Working Capital
DG 07-072

Data Request UES 2-3

Dated: July 10, 2008
Page 1 of 1

Witness: **James Rothschild**
Request from: **Unitil Energy Systems, Inc.**

Question: Please describe the prudent amount of short term debt a company should reserve to apply to contingencies, such as emergencies or outage costs. Please describe how Staff would calculate this reserve for each of the utilities in this docket. Please provide these calculations. How should such a risk contingency be taken into account in any evaluation of whether or not short term debt has been effectively utilized?

Response: Mr. Rothschild has not conducted the requested analysis.

Electric and Gas Carrying Charge Rate on
Supply-related Cash Working Capital
DG 07-072

Data Request UES 1-4

Dated: June 2, 2008
Page 1 of 1

Witness: James Rothschild
Request from: Unitil Energy Systems, Inc.

Question: What is Staff's understanding of the Commission current policy and practice with regard to the treatment of short-term debt in the capital structure for base ratemaking purposes?

Response: Other than the fact that the Commission has clearly authorized capital structures in the past that include non-zero short-term debt percentages, Staff is not aware that the Commission has articulated a clear policy on the treatment of short-term debt in the capital structure for base ratemaking purposes.

Electric and Gas Carrying Charge Rate on
Supply-related Cash Working Capital
DG 07-072

Data Request UES 1-11

Dated: June 2, 2008
Page 1 of 1

Witness: James Rothschild
Request from: Unitil Energy Systems, Inc.

Question: Please provide citation to all cases or dockets in any jurisdiction of which the Staff and/or Mr. Rothschild is aware where a regulatory commission has required or ordered that supply-related working capital should earn the short-term debt rate, or that have otherwise more generally determined that sound regulatory principles require that capital raised by a regulated company be tracked to specific uses for rate-making purposes.

Response: The Rhode Island Public Utility Commission in a Cost of Recovery Charge (Docket No. 3436) ordered that New England Gas Company "...reduce the short-term debt rate used for the working capital calculations from 4.90% to 2.45%."

IN RE: NEW ENGLAND GAS COMPANY'S GAS COST RECOVERY CHARGE

DOCKET NO. 3436

Rhode Island Public Utilities Commission

2003 R.I. PUC LEXIS 26

November 21, 2003, Issued

PANEL: [*1] Elia Germani, Chairman; Kate F. Racine, Commissioner; Robert B. Holbrook, Commissioner

OPINION: REPORT AND ORDER

I. NEGAS' SEPTEMBER 2, 2003 FILING

On September 2, 2003, New England Gas Company ("NEGas"), a division of Southern Union, proposed increases in NEGas' Cost Recovery ("GCR") factors for effect November 1, 2003. Specifically, NEGas proposed to increase its GCR factors on a per therm basis to: $ 0.8195 for residential and small commercial and industrial ("C&I") customers; $ 0.8099 for medium C&I customers; $ 0.8113 for large low load factor C&I customers; $ 0.7852 for large high load factor C&I customers; $ 0.8205 for extra large low load factors C&I customers; and $ 0.7751 for extra large high load factor C&I customers. For a typical NEGas residential heating customer of the former Providence Gas Company ("ProvGas"), this would result in a 7.3 percent increase, or $ 85 per year, for a total bill of $ 1,301 per year. n1

n1 This bill impact analysis incorporates NEGas' proposed reduction in the Distribution Adjustment Clause ("DAC") factors effective November 1, 2003. The DAC factors reduction was due to such items as: weather normalization and earnings sharing.

[*2]

In support of its filing, NEGas submitted the pre-filed testimonies of Michael Harn, Pricing Analyst of NEGas, and Gary Beland, Director of Gas Supply of NEGas. In his pre-filed testimony, Mr. Harn indicated that NEGas' current estimate of the deferred gas cost undercollection, as of October 31, 2003, was $ 19.9 million. He stated that the undercollection was caused by an increase in NYMEX gas prices and increased consumption as a result of the cold winter. n2

n2 NEGas Ex. 03-2 (Harn's direct testimony, 9/2/03), pp. 9-10.

Mr. Harn stated that the elimination of the undercollection and recovery of projected gas costs would result in a 7 percent increase for the typical residential heating customer. In order to mitigate the impact on customers of the GCR increase, NEGas proposed in the alternative to collect 50 percent of the deferred gas cost balance during the following GCR period beginning November 2004. However, if the deferred gas cost balance were to exceed 5 percent of projected gas costs, NEGas would file an [*3] adjustment to the GCR factor to eliminate the undercollection or to reduce the undercollection to no more than 5 percent of projected gas costs. Recovery of 50 percent of the deferred gas cost undercollection would result in a total bill increase of 4 percent to the typical residential heating customer. n3 n3 Id., pp. 13-16.

In his pre-filed testimony, Mr. Beland stated that the proposed GCR factors are based on the NYMEX strip, as of the close of trading on August 18, 2003, for any purchase of gas supply that is not already locked in under the gas purchasing plan. Mr. Beland next described the Gas Purchasing Incentive Plan ("GPIP"). He indicated that the focus of the GPIP is to lock in future gas prices over an 18 month horizon in order to stabilize prices and to protect customers from the effects of larger price spikes. Furthermore, the GPIP relies on a dollar cost-averaging approach and also provides an incentive mechanism to reward or penalize NEGas for discretionary purchases based on its performance against [*4] a dollar cost-averaging benchmark. n4

n4 NEGas Ex. 03-3 (Beland's direct testimony 9/2/03), pp. 3-4.

II. DIVISION'S DIRECT TESTIMONY

On October 16, 2003, the Division of Public Utilities and Carriers ("Division") submitted the pre-filed testimony of Bruce Oliver, an outside consultant. In his pre-filed testimony, Mr. Oliver indicated that NEGas' typical bill impacts for the GCR increases are based on usage levels that depart from the forecasted average gas use. He also indicated that the magnitude of the GCR increases is not easily observed from NEGas' bill impact analysis. For example, NEGas' proposed GCR increase for residential heating customers is 15.1 percent and many C&I customers face an even larger percentage of GCR increases. n5

n5 Div. Ex. 03-2 (Oliver's direct testimony 10/16/03), pp. 3-5.

Mr. Oliver stated it is in the Commission's discretion [*5] to decide whether to delay recovery of any portion of NEGas' deferred gas cost balance. However, he recommended that the Commission should minimize the deferred gas cost balance that is delayed for recovery in future GCR periods. Other than bill impacts, Mr. Oliver recommended consideration of projected future gas costs, anticipated future DAC levels, weather, and interest when determining what portion of deferred gas costs should be postponed. Beyond this winter, Mr. Oliver suggested there could be considerable upward pressure on natural gas prices. Also, Mr. Oliver speculated that there is a high probability that this winter will be warmer than last winter, which was substantially colder than normal and, therefore, customers' bills will tend to be lower relative to last winter. Furthermore, Mr. Oliver foresaw an upward trend in interest rates over the next year. n6

n6 Id., pp. 5-9.

Mr. Oliver found NEGas' GCR charges to be properly computed. He also found NEGas' allocations among rate classes for deferred gas [*6] costs to be reasonable. However, he determined that the cost responsibilities of FT-1 customers for the 12 months ending June 30, 2003, to be understated. However, he maintained that this does not have a dramatic affect on firm sales customers and should be addressed by the Transitional Sales Service ("TSS") Tariff. He also proposed the Natural Gas Vehicle ("NGV") charge to be $ 0.5803 per therm. Furthermore, he found NEGas' marketer transportation charges and the BTU conversion factor to be reasonable. In addition, he found NEGas' proposed tariff in compliance with Order No. 17444 regarding the GPIP to be appropriate. Lastly, he found NEGas' fixed gas supply and storage costs to be reasonable but indicated that in the future NEGas should be required to address the reasonableness of its projected fixed gas supply and storage costs in its annual GCR filing. n7 n7 Id., pp. 10-18.

III. NEGAS' RESPONSIVE TESTIMONY

On October 22, 2003, NEGas submitted the responsive testimony of Michael Harn. Mr. Harn indicated that [*7] the typical usage levels used for bill impact analysis were developed in Docket No. 3401, and he noted that a typical customer bill may differ from the average usage level for the entire class. Also, Mr. Harn asserted that the impact of a change in the GCR rate is less relevant to a ratepayer than the percentage change in the overall bill. In addition, NEGas agreed that the optimal course of action is to provide for the recovery of deferred gas costs on the most timely basis possible. Furthermore, NEGas still maintained that it would be helpful to establish a 5 percent threshold as a guideline for filing an interim adjustment to the GCR rate. However, NEGas indicated it would not file for an interim rate reduction until the deferred gas cost balance is fully collected. Lastly, NEGas concurred with a NGV charge of $ 0.5803 per therm. n8

n8 NEGas Ex. 03-3 (Harn's responsive testimony), pp. 3-9.

IV. HEARINGS

Following published notice, a public hearing was conducted on October 23, 2003 at the Commission's offices at [*8] 89 Jefferson Boulevard Warwick, Rhode Island. The following appearances were entered:

FOR NEGAS:	Craig Eaton, Esq.
	Cheryl Kimball, Esq.
FOR DIVISION:	Paul Roberti, Esq.
	Assistant Attorney General
FOR COMMISSION:	Steven Frias, Esq.
	Executive Counsel

Members of the public indicated their opposition to: (1) the GCR increase; (2) support for debt forgiveness; and (3) a lower down payment requirement to resume receiving gas service. NEGas presented Mr. Harn and Mr. Beland as their witnesses. Mr. Harn stated that the GCR increases for C&I customers are larger because gas costs are a larger portion of their bill. Mr. Harn accepted the use of a more recent NYMEX strip to establish GCR rates and acknowledged that the use of a more recent NYMEX strip would lower the proposed GCR rates. Mr. Harn still estimated that the undercollected gas cost balance was $ 19.9 million. He agreed that for annual reconciliation charges the Commission could review the appropriate uncollectible percentage based on the success of NEGas' recent collection activities. Also, Mr. Harn agreed to resubmit the working capital calculation for the GCR rates utilizing Southern Union's short-term debt rate [*9] for the most recent 12 months. n9

n9 Tr. 10/23/03, pp. 51, 67-69, 72, 76-80.

The Division presented Mr. Oliver as its witness. Mr. Oliver stated that the short-term debt rate for the GCR working capital calculation should be the same debt rate used for the deferred gas cost balance. He acknowledged that all C&I customers other than small commercial customers can obtain transportation service. Also, Mr. Oliver indicated that the proposed GCR rates are 5 to 10 percent lower than those of other New England gas utilities. n10

n10 Id., pp. 145-146, 149-152.

On October 29, 2003, NEGas responded to the Commission's record requests. NEGas submitted a new GCR proposal based on the NYMEX strip of October 27, 2003 and a working capital calculation based on a short-term debt rate of 2.45 percent. The proposed GCR increase that would eliminate the entire undercollection [*10] is 5.1 percent, or $ 62 per year for the typical residential heating customer. n11 Also, the proposed GCR increase that would eliminate 50 percent of the undercollection is 2.1 percent, or $ 25 per year for the typical residential heating customer.

n11 NEGas' October 29, 2003 Record Responses.

At an open meeting on October 30, 2003, the Commission reviewed the evidence and adopted NEGas' proposed GCR factors filed on October 29, 2003 that would eliminate the entire undercollection, and on an interim basis adopted the Division's proposed DAC factors, which resulted in an overall increase of 5 percent for the typical residential heating customer or an increase of $ 60 per year for a total bill of $ 1,277 per year.

COMMISSION FINDINGS

At the outset the Commission will address two issues of less significance that arose during this proceeding. First, the Commission recognizes that the cost responsibilities relating to deferred gas costs for FT-1 customers may be understand, but since its impact on firm sales customers [*11] is not significant the Commission will not pursue the issue at this time. The Commission anticipates that the TSS tariff could address this prospectively. Second, the Commission expects that in future annual GCR filings NEGas will address the reasonableness of its projected fixed gas supply and storage costs.

The primary issue before the Commission in this proceeding was either to approve GCR rates that would eliminate the entire deferred gas costs balance or a lesser amount such as 50 percent of the balance. When it is possible to avoid rate shock, the Commission will eliminate a deferred gas cost balance sooner rather than later. In the past, however, the Commission has deferred gas costs for an extended period. For instance, the Commission required the deferral of gas costs incurred during the winter 2000-2001 through June 30, 2002. This was necessary to avoid rate shock. n12 The Commission also required the deferral of gas costs incurred during the latter half of the winter 2002-2003 beyond the GCR period ending October 31, 2003 because there were not sufficient volumes to eliminate the undercollection without causing rate shock. n13

n12 Order No. 16745, pp. 63-64, 67-68.

[*12]

n13 Order No. 17444, pp. 21-23.

In these circumstances, a deferral of gas costs beyond the period ending October 31, 2004 is unnecessary. The elimination of the entire undercollection would result in a 5 percent increase to the typical residential heating customer while elimination of only half the undercollection would be a 2 percent increase. The difference between a 2 percent increase and a 5 percent increase is not sufficient to constitute rate shock.

In addition, the Commission has noticed a long-term trend for higher natural gas prices after the winter of 1999-2000. This is a result of numerous factors such as the growing use of natural gas for new electric generation. n14 These factors have caused a long-term increase in natural gas prices. In essence, the demand for natural gas in the United States is growing at a faster rate than the supply of natural gas in the United States. As a result, natural gas prices should be expected to climb higher and higher.

n14 Div. Ex. 03-2, p. 7.

[*13]

Furthermore, the Commission notes that the past winter was colder than normal. In all likelihood, this winter should be warmer than last year. As a result, consumption will be lower and residential heating ratepayers' total bills will be lower so that the deferred gas cost balance could be eliminated without causing rate shock.

In light of the possibility that this winter could be warmer than normal, which could cause natural gas prices to further decline, the Commission requested that during these upcoming winter months, NEGas provide the Commission with monthly reports of the actual and forecasted deferred gas cost balances for the period ending October 31, 2004. If the deferred gas cost balance is eliminated or is projected to be eliminated by October 31, 2004, the Commission could require a decrease in the GCR rates. n15

n15 The Commission will not address the issue as to whether to establish a 5 percent threshold guideline for filing an interim rate increase. NEGas can utilize its managerial discretion in filing for an interim rate increase. Of course, the Commission will then exercise its regulatory discretion as to what extent it would approve such increase.

[*14]

Certain members of the public may feel that this Commission is indifferent to increases in NEGas' rates. This is simply false. For instance, in this proceeding, the Commission required that NEGas utilize a recent and lower priced NYMEX strip. In addition, the Commission required that NEGas reduce the short-term debt rate used for the working capital calculations from 4.90 percent to 2.45 percent, which reduced working capital inventory/finance costs by approximately $ 50,000. n16 Furthermore, the Commission implemented an interim rate decrease of $ 5.2 million from NEGas' over-earnings to help offset the GCR increase. These actions had the effect of reducing the increase on the typical residential heating customer's bill from 7.3 percent to 5.0 percent.

n16 The Commission adopted the 12-month average rate for short-term debt utilized for earnings sharing purposes because it did not differ significantly from the 2.25 percent rate for deferred gas costs. However, if Southern Union's short-term debt rate were to be significantly higher than the tariffed rates for deferred gas costs, especially if it were the result of Southern Union's poor bond rating, the Commission would revisit this issue.

[*15]

Justice Brandeis once stated that "in no other field of public service regulation is the controlling body confronted with factors so baffling as in the natural gas industry." n17 Thus, it is not surprising that certain members of the public may be baffled as to how NEGas' rates continue to climb despite this Commission's best efforts to keep these rates low or stable. As an initial matter, it must be understood that this Commission cannot set the wholesale price of interstate natural gas. The GCR portion of ratepayers' bills was deregulated by the federal government in the Natural Gas Policy Act of 1978. n18 This state Commission has been pre-empted in this arena and must treat these purchased gas costs as a utility operating expense. n19 Therefore, in regards to the wholesale gas cost increases, this Commission has a few options such as: disallowing imprudent wholesale gas purchases, reduce interest charges on any undercollection for deferred gas costs, establishing a gas procurement policy to attempt to shelter residential heating ratepayers from price spikes during the winter, creating a gas procurement plan that imposes penalties on NEGas if it does not take advantage of price [*16] dips, or finding savings in NEGas' distribution rates to offset GCR increases. This Commission has done and will continue to do all of the above. It has not been a passive observer who simply blamed the wholesale gas market as prices rose.

n17 *Pennsylvania v. West Virginia 262 U.S. 553, 621* (Brandeis dissenting) (1923).

n18 Certain federal authorities could set prices for wholesale natural gas during a shortage. However, no federal action was taken even when gas prices increased dramatically on the NYMEX by closing above $ 9 during January 2001 and March 2003.

n19 *Narragansett Electric v. Burke 119 R.I. 559 (1977).*

In past proceedings relating to wholesale gas costs, the Commission has reduced gas costs by approximately $ 1.26 million after it conducted a review of the prudence of ProvGas and Valley Gas' gas procurement for the winter of 2000-2001. n20 Also, the Commission approved the development of a gas procurement plan that requires NEGas to [*17] purchase gas months in advance in order to ameliorate the price spikes of a colder than normal winter. n21 In addition, this gas procurement plan contains a potential penalty of $ 500,000 for NEGas if its gas purchases do not take advantage of drops in gas prices. n22

n20 Order No. 16745, pp.65-66, 82. This amount includes a 2 percent reduction in interest charges on the deferred gas costs account, which saved ratepayers an estimated $ 768,000 prior to June 30, 2002. Id. This reduction has continued to save ratepayers on interest charges for the current deferred gas costs balance. It also included a $ 500,000 contribution from the shareholders to reduce the prior deferred gas costs balance arising from the winter of 2000-2001. Id. at 82.

n21 Order No. 16745, pp. 69-72, & Order No. 17444, pp 25-27, 39-40.

n22 Order No. 17444, pp. 27-38.

This is quite a contrast from neighboring Massachusetts. In Massachusetts, gas utilities rely heavily on the spot market so if a winter is very cold and demand is high, [*18] the ratepayers are paying for a large amount of gas at a very high price. Furthermore, these gas utilities are not subject to a penalty plan for poor gas purchases. The difference in these two approaches has been made clear over the last four years. Since November 1999, in three of the last four years, NEGas/ProvGas' GCR rates have been below the GCR rates of at least two of three major Massachusetts gas utilities: Bay State, Boston Gas and NStar/Commonwealth. Specifically, NEGas/ProvGas rates were significantly lower in the winter of 2000-2001, and 2002-2003, when dramatic price spikes occurred due to colder than normal weather. n23 This Commission's gas procurement policy has sheltered residential heating customers from extreme price spikes at the time their consumption is highest--extreme cold weather during the winter. n24 Unfortunately, because of the legal limitations on this Commission regarding regulation of wholesale gas costs, ProvGas/NEGas' GCR rates for residential heating customers have increased from $ 0.4531 per therm as of September 30, 2000 to $ 0.7984 per therm as of

November 1, 2003, or approximately a 76 percent increase in three years. n25

n23 During the remainder of the winter after the January 2001 price spike, ProvGas' GCR rate was $ 0.6979 per therm while Bay State, Boston Gas and NStar's GCR rates ranged from $ 0.9500 to $ 1.1123 per therm. Also, during the remainder of the winter after the March 2003 price spike, NEGas' rate ranged from $ 0.6251 to $ 0.7120 per therm while Bay State, Boston Gas and NStar's GCR rates ranged from $ 0.8936 to $ 0.9911 per therm.

[*19]

n24 The Commission focuses on residential heating ratepayers in reviewing GCR rates because all C&I customers except small commercial customers are eligible for transportation (competitive) service Approximately 182,000 of NEGas' 240,000 customers or 76 percent are residential heating customers not eligible for transportation service.

n25 The monthly closing NYMEX price has more than doubled when the winter of 1999-2000 is compared to the winter of 2002-2003.

In contrast, this Commission does have extensive authority over NEGas' distribution rates. The primary legal limitation on this Commission in this arena is that the Commission can not set rates that would constitute confiscation of property for Southern Union's shareholders under the 14th Amendment of the U.S. Constitution. n26 In past proceedings affecting distribution rates, the Commission reduced distribution rates by $ 873,000 as a result of ProvGas' gas procurement for the winter of 2000-2001. n27 Also, in 2002, the Commission rejected NEGas' proposed $ 7.1 million increase, and instead reduced NEGas' rates by $ 3.9 million and [*20] imposed a three-year rate freeze on distribution base rates. n28 Furthermore, in another proceeding this Commission rejected NEGas' proposed increase of $ 4.3 million and instead reduced former ProvGas' customers' rates by finding that ProvGas over-earned by $ 5.2 million from October 2000 through June 2002. n29 In addition, the Commission is currently investigating NEGas' over-earnings for the fiscal year ending June 30, 2003 and has implemented an interim rate decrease of $ 5.2 million. As a result, ProvGas/NEGas' distribution rates for residential heating customers has decreased from September 30, 2000 to November 1, 2003 from $ 529 per year to $ 450 per year or approximately a 15 percent decrease in three years.

n26 See e.g. *Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591, 590 (1944); New England Telephone & Telegraph Co. v. Public Utilities Commission, 116 R.I. 356, 362-364 (1976); Valley Gas Co. v. Burke, 446 A.2d 1024, 1031 (R.I. 1982).* As long as NEGas is an investor-owned utility, its shareholders have a right to an opportunity to obtain a fair rate of return on their property.

[*21]

n27 Order No. 16584, pp.16-17 & Order No. 16745, p.82. The Commission adjusted the weather mitigation clause so that ProvGas would not receive an additional $ 390,000 in distribution revenues because the winter of 2001-2002 was warmer than normal. Order No. 16745, p.82. In addition, the Commission reduced ProvGas' return on equity from 10.9 percent to 10.7 percent, which caused NEGas to return an additional $ 483,000 in over-earnings. Order No. 16584, pp. 16-17.

n28 Order No. 17381, p. 63.

n29 Order No. 17524, pp. 159-160. The amount of 5.227 million would have been reduced by $ 483,000 if the Commission had not reduced ProvGas' return on equity from 10.9 percent to 10.7 percent in the earlier mentioned proceeding.

The Commission has taken the initiative in many proceedings to lower or keep gas rates stable. Continuing its vigilance over gas rates, the Commission is considering a review of NEGas' bill collection activities. Presently, there is a 2.1 percent uncollectibles factor built into gas rates. These uncollectibles may be the result of a few customers gaming the system by paying [*22] just enough of their past due gas balance to receive gas service during the winter moratorium. But instead of making reasonable payments on their gas bills, these customers accrue large balances during the winter. These uncollectibles eventually are written off and the customers with these delinquent gas accounts essentially received "free gas". However, this "free gas" for the few comes at a cost to all ratepayers through a hidden 2 percent increase in their bills to pay for uncollectibles or $ 27 per year for the typical residential heating customer. NEGas' bad debt write-offs were $ 5.6 million for the fiscal year ending June 30, 2003. Even before the start of this winter season, as of October 31, 2003, the amount of NEGas' bad debt write offs were already $ 7.3 million. n30

n30 NEGas' November 20, 2003 Record Responses.

NEGas should become more pro-active in its collections activity and in terminating service to customers who have large gas balances. When a customer's balance exceeds $ 1,000 or approximates the [*23] customer's gas bill for a year of service, NEGas should either have the customer significantly reduce his balance with a payment or for his service to end. The Commission is aware that its rules governing termination of gas service may be so generous that it will be difficult for NEGas to implement this policy during the winter moratorium. However, the Commission may revise these rules while reviewing NEGas' collections policy. This could result in a reduction in rates due to a reduction in uncollectibles. n31 Currently, there is already approximately $ 1.8 million in rates to assist low income households through a combination of aid to LIHEAP customers and weatherization. There is no need for an implicit program of "debt forgiveness" to continue through a policy of allowing for an uncollectible factor of 2.1 percent in rates. The Commission can not on one hand scrutinize and pursue over-earnings by NEGas while turning a blind eye to a growing uncollectibles problem. Over-earnings and excessive uncollectibles both cause rates to be higher than necessary thereby making it more difficult for ratepayers struggling to pay their bills to continue to make payments. The bill has come due [*24] on those receiving "free gas".

n31 The Commission is not contemplating revising these rules as it relates to the seriously ill, handicapped, elderly or temporarily unemployed.

Accordingly, it is

(17606) ORDERED:

1. The Gas Cost Recovery factors filed by NEGas on October 29, 2003, set forth on a per therm basis, of: $ 0.7984 for residential and small C&I customers, $ 0.7888 for medium C&I customers, $ 0.7902 for large low load factor customers, $ 0.7641 for large high load factor customers, $ 0.7994 for extra large low load factor customers, and $ 0.7540 for extra large high load factor customers are approved for effect November 1, 2003 through October 31, 2004.

2. The Gas Marketer Transportation factors filed by NEGas on September 2, 2003 of: $ 0.043 per therm for FT-2 Firm Transportation Marketer Gas Charge, $ 0.0022 per percent of balancing elected per therm for Pool Balancing Charges, and weighted average upstream pipeline transportation cost of $ 0.1034 per

therm of capacity, are approved for effect [*25] November 1, 2003 through October 31, 2004.

3. The Natural Gas Vehicle Rate filed by NEGas on October 22, 2003 of $ 0.5803 per therm, is approved.

4. The revision to the tariff language for the Gas Cost Recovery Clause filed by NEGas on September 2, 2003, is approved.

5. NEGas shall comply with all other findings and instructions contained in this Report and Order.

EFFECTIVE IN WARWICK, RHODE ISLAND, ON NOVEMBER 1, 2003, PURSUANT TO AN OPEN MEETING DECISION ON OCTOBER 30, 2003. WRITTEN ORDER ISSUED NOVEMBER 21, 2003.

PUBLIC UTILITIES COMMISSION

Elia Germani, Chairman

Kate F. Racine, Commissioner

Robert B. Holbrook, Commissioner

Legal Topics:

For related research and practice materials, see the following legal topics:
Energy & Utilities LawAdministrative ProceedingsRatemakingEnergy & Utilities LawGas IndustryDistribution & SaleEnergy & Utilities LawUtility CompaniesBuying & Selling of Power

New England Gas Company
Docket No. 3436

Data Request and Response

Requestor: Commission

Respondent: Michael J. Harn

Date: October 23, 2003

Q. COMM 1-05 Provide the short-term debt rate used in the weighted cost of capital calculation and included in the working capital calculation. If not consistent with the rate used in the ESM, update the GCR calculation.

A. COMM 1-05 Attachment Comm 1-5 presents the cost of capital underlying the working capital and inventory financing costs in the Company's September 2, 2003 GCR filing. This attachment also presents an updated cost of capital reflecting the Company's short-term debt rate for the twelve months ended June 2003. As shown, the cost of capital declines from 9.09% to 8.88% with this update.

Please note, the Company's currently effective GCR tariff (Section 2, Schedule A, Sheet 9, item 5.0) states the cost of capital for purposes of calculating the working capital requirement will be the Weighted Pre-tax Cost of Capital approved in the most recent rate case proceeding. The Cost of Capital reflected in the Company's September 2, 2003 GCR filing complied with the tariff. However, the Company agrees with the Commission that use of the most recent short-term debt rate is more representative of the actual carrying costs incurred by the Company. The Company has updated its proposed 2003-04 GCR factors reflecting a cost of capital based on the short-term borrowing rate for the twelve months ended June 2003 (see response to Comm 1-10).

New England Gas Company
Rhode Island Division
Weighted Cost of Capital: 2003-04 GCR

	Cost of Capital - Dkt 3401			Cost of Capital: 2003-04 GCR		
	Rate	%	wghted	Rate	%	wghted
Short-term Debt	4.90%	8.8%	0.431%	2.45%	8.8%	0.216%
Long-term Debt	7.81%	45.7%	3.569%	7.81%	45.7%	3.569%
Preferred Equity	9.93%	1.9%	0.189%	9.93%	1.9%	0.189%
Common Equity	11.25%	43.6%	4.905%	11.25%	43.6%	4.905%
Total		100.00%	9.094%		100.00%	8.878%
Cost of Debt			4.189%			3.973%
Cost of Equity			4.905%			4.905%

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