1	STATE OF NEW HAMPSHIRE	Name of the state
2	BEFORE THE	ORIGINAL
3	PUBLIC UTILITIES COMMISSION	N.H.P.U.C. Gase No. DG 07-072 Exhibit No. #2
4		Witness James A. Roffischik
5		DO NOT REMOVE FROM FILE
6	IN THE MATTER OF:	T Con Equ
7 8 9	Carrying Charge Rate on Cash Working Capital)	
10 11	DG 07-072	
12 13	DG 07-072	
14	REVISED	
15	DIRECT TESTIMONY	
16	AND SCHEDULES	
17	OF	
18	JAMES A. ROTHSCHILD	
19	ON BEHALF OF THE	
20	PUBLIC UTILITIES COMMISSION	
21		
22	October 28, 2008	Deleted: June 2
23		

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5	II PURPOSE	Deleted: <#>¶
6	III. UTILITY COMPANY REVISIONS	Deleted: .
7	IV SUMMARY OF FINDINGS AND RECOMMENDATIONS5	Formatted: Numbered + Level: 1 + Numbering Style: I, II, III, + Start at: 3 + Alignment Left + Aligned at: 0.5
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15	ROTHSCHILD	
16		
17		
18		
19		

1 I. STATEMENT OF QUALIFICATIONS

- 2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.
- 3 A. My name is James A. Rothschild and my address is 115 Scarlet Oak Drive, Wilton,
- 4 Connecticut 06897.

5

- 6 Q. WHAT IS YOUR OCCUPATION?
- 7 A. I am a financial consultant specializing in utility regulation. I have experience in the
- 8 regulation of electric, gas, telephone, sewer, and gas utilities throughout the United
- 9 States and Nova Scotia, Canada.

10

- 11 Q. PLEASE SUMMARIZE YOUR UTILITY REGULATORY EXPERIENCE.
- 12 A. I have been a consultant specializing in utility ratemaking since 1972. Initially, I was
- 13 employed by Touche Ross & Co. Touche Ross & Co. later merged to form Deloitte
- Touche. I then provided similar consulting services while with J. Rothschild
- Associates, Georgetown Consulting Group, and Rothschild Financial Consulting.
- While associated with the above firms, I have worked for various state utility
- 17 commissions, attorneys general, and public advocates on regulatory matters relating
- to regulatory and financial issues. These have included rate of return, financial
- issues, and accounting issues. (See Appendix A.)

- 21 Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?
- 22 A. I received an MBA in Banking and Finance from Case Western University (1971) and
- a BS in Chemical Engineering from the University of Pittsburgh (1967).

2

II. PURPOSE

- 3 Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?
- 4 A. The purpose of this testimony is to determine what the appropriate rate utility
- 5 companies in New Hampshire should be allowed to charge ratepayers for the carrying
- 6 costs of supply-related cash working capital.

- 8 Q. WHAT IS SUPPLY-RELATED CASH WORKING CAPITAL?
- 9 A. Supply-related working capital is the financing a company needs to manage the
- 10 relationship between its short-term accounts receivables and accounts payable in regards
- 11 to purchasing natural gas or the fuel required to generate electricity.

1	
2	III. UTILITY COMPANY REVISIONS
3	e mand commercia adino e typy a li se amendante di finale comina di comina e comina di comina di comina di comi
4	Q. HAVE ANY OF THE UTILITIES IN THIS PROCEEDING PROVIDED
5	REVISED DATA?
6	A. Yes. Unitil, Energy North and Northern Utilities Inc. have provided revised
7	supply related working capital balances.
8	ment in this cost severa colleging of me amount of such capital mendod to form rightnesses.
9	Q. DOES THIS UPDATED DATA CHANGE YOUR TESTIMONY?
10	A. No. As you will see in my testimony the revised data is different in magnitude
11	but not in their characteristics that affect my recommendation.

Deleted: II.

IV., SUMMARY OF FINDINGS AND RECOMMENDATIONS

- 2 Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.
- 3 A. For reasons that are explained later in this testimony, Energy North, Granite State,
- 4 Northern Utilities and Unitil should be required to use the cost of short-term debt
- 5 when determining the revenue requirements associated with supply-related working
- 6 capital.

- 7 PSNH has not made a claim for any supply-related working capital, and has stated
- 8 that it has not even computed the amount of such capital needed to run its business.
- 9 If, in the future, the company should make such a computation, the principles laid out
- in this testimony should govern the determination of their appropriate carrying charge
- 11 rate.

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V. BACKGROUND AND APPROACH

Q. HOW DOES A COMPANY OBTAIN ITS CAPITAL?

A. A company obtains its capital from investors. That capital is raised from investors through a mix of equity, long-term debt, and short-term debt. Ideally, the percentage 6 of each that is used in the capital structure is determined with a goal of minimizing 7 the long-run overall cost of capital. Especially after considering the allowance for income taxes, equity costs considerably more than either long-term or short-term debt. Short-term debt generally is less expensive than long-term debt. However, the 10 greater the proportion of debt a company uses, the more financial risk exposure it will have and therefore, other things being equal, both the cost of debt and the cost of equity will rise as the proportion of total capital raised by debt increases. Therefore, there is a limit on the maximum appropriate amount of debt a company should or can 14 use. There is also a separate appropriate limit on the total amount of debt that should or can be raised as short-term debt rather than long-term debt because of factors such as indenture limitations and the potential exposure to a financial environment in which interest rates rise rapidly. By considering the appropriate cost tradeoffs between equity and both long and short-term debt, a company can both maintain its financial integrity and minimize its overall cost of capital by using reasonably appropriate levels of each component of capital.

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Q. WHAT ARE TYPICAL USES OF SHORT-TERM DEBT?

A. Common uses of short-term debt include the financing of short-duration assets such as working capital and for bridge financing. Also, to take advantage of the relatively low cost of short-term debt some companies may provide some level of financing of long-term assets with short-term debt.

Q. WHY IS WORKING CAPITAL A COMMON USE FOR SHORT-TERM DEBT?

A. The need for working capital typically varies with time. Such variation could occur for reasons such as seasonal variations in load, abnormal weather conditions, under collection of fuel or purchased gas costs. A capital need that varies with time is especially suited to be financed with short-term debt because, unlike permanent capital, the costs incurred from short-term debt financing are only incurred during the time the debt is actually being used. For example, a company that had a net positive need for working capital for 9 months of a year would incur interest charges for only 9 months if that need is financed with short-term debt. This is in contrast to long-term debt or equity in which the costs are incurred for all 12 months.

Q. WHAT IS BRIDGE FINANCING?

A. Bride financing is temporary financing that is used until the amount of new financing a company needs is large enough to make an issuance of long-term debt or common equity economical. It can be uneconomical to issue long-term debt or undertake major new issuances of common stock in small dollar increments. Therefore, companies frequently use short-term debt to finance physical assets during a construction period

2		term debt becomes large enough to make the long-term debt issuance economical.
3		
4	Q.	HOW SHOULD REGULATORS SUCH AS THE NEW HAMPSHIRE
5		COMMISSION TREAT SHORT-TERM DEBT?
6	A.	Regulators have a responsibility to balance the interests of investors and ratepayers.
7		Since short-term debt is usually a relatively inexpensive source of capital, it is
8		important for regulators on the one hand to provide ratepayers with the benefit of the
9		lower cost associated with short-term debt while on the other hand protecting
10		investors by not assigning more short-term debt in the ratemaking process than a
11		company could reasonably be expected to use.
12		
13	Q.	HOW DOES THE REGULATORY PROCESS PROVIDE RATEPAYERS WITH
14		THE BENEFIT OF LOW COST SHORT-TERM DEBT?
15	A.	Each of the companies in this proceeding has stated in response to discovery (see for
16		example Granite State's response to Staff 1-12) that it uses the Federal Energy
17 .		Regulatory Commission (FERC) method for computing the Allowance for Funds
8		Used During Construction (AFUDC) rate, which it earns on the eligible Construction
9		Work in Progress (CWIP) balance. The FERC has a policy of first allocating all
20		available short-term debt to CWIP that is eligible to earn the AFUDC rate. The way
21		the FERC method accomplishes this allocation is to set the AFUDC rate equal to the
22		cost of short-term debt so long as the short-term debt balance is equal to or greater
23		than the balance of CWIP eligible for AFUDC. If the balance of CWIP eligible for

and then replace the short-term debt with long-term debt once the amount of short-

1		AFUDC is greater than the short-term debt balance, then the FERC uses the overall
2		cost of capital for the AFUDC rate applied to the balance of CWIP eligible for
3		AFUDC in excess of the short-term debt balance.
4		
5	Q.	WHAT IMPLICATIONS DOES THE FERC METHOD FOR COMPUTING THE
6		AFUDC RATE HAVE ON THE TREATMENT OF SHORT-TERM DEBT IN THE
7		REST OF THE RATEMAKING PROCESS?
8	A.	Since the FERC effectively assumes that the available short-term debt is used first to
9		finance CWIP, ratepayers benefit from an AFUDC rate that is lower than if another
10		rate, such as the overall cost of capital, were used. The lower the AFUDC rate used
11		by a company, the lower will be the capital cost of the physical asset when it is
12		completed and placed into service. This lower capital cost produces lower rates to
13		customers because a smaller rate base results in a smaller return on rate base and a
14 .		smaller depreciation expense. Therefore, it is appropriate for regulators to be
15		mindful of the amount of short-term debt that has already been assigned to the
16		AFUDC rate when deciding whether other assets should be financed with short-term
17		debt.
18		
19	Q.	OTHER THAN ITS IMPACT ON THE AFUDC RATE, HOW COULD
20		RATEPAYERS BENEFIT FROM SHORT-TERM DEBT?
21	A.	A regulator could require that a certain portion of a utility's rate base be financed with
22		low cost short-term debt, and/or a regulator could determine that supply-related

ı		working capital is being financed by short-term debt and therefore earns the short-
2		term debt rate.
3		
4	Q.	DOES THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION INCLUDE
5		SHORT-TERM DEBT IN THE CAPITAL STRUCTURE WHEN IT DETERMINES
6		THE OVERALL COST OF CAPITAL FOR THE COMPANIES IT REGULATES?
7	A.	Yes, the New Hampshire Commission has frequently computed the cost of capital by
8		including at least some short-term debt in the capital structure.
9		
10	Q.	IN ADDITION TO INCLUDING SOME SHORT-TERM DEBT IN THE CAPITAL
11		STRUCTURE, DOES EACH COMPANY IN NEW HAMPSHIRE ALLOCATE
12		SHORT-TERM DEBT TO ITS AFUDC RATE?
13	A.	Yes. As noted above, each company in this proceeding has responded to discovery
14		stating that it uses the FERC method for computing its AFUDC rate.
15		
16	Q.	IF SOME OF THE AVAILABLE SHORT-TERM DEBT HAS BEEN USED TO
17		FINANCE CWIP ELIGIBLE FOR AFUDC AND SOME TO FINANCE A
18		PORTION OF RATE BASE, IS IT POSSIBLE THAT THERE WOULD BE
19		ENOUGH SHORT-TERM DEBT LEFT OVER TO FINANCE SUPPLY-RELATED
20		WORKING CAPITAL?
21	A.	Yes. Whether or not there is any short-term debt left over to finance supply-related
22		working capital depends on three factors: (i) the total amount of short-term debt that a
23		company is or should be using; (ii) the amount of CWIP earning the AFUDC, and

1 (iii) the amount of short-term debt that has been included in the determination of the 2 overall cost of capital that was applied to rate base. Thus, the amount of short-term 3 debt that is or should be financing supply-related working capital must be determined Deleted: ¶ 4 on a case-by-case basis, Formatted: Indent: Left: 5 0", Hanging: 0.25" 6 Q. ARE THERE ANY SPECIAL CHARACTERISTICS OF SUPPLY RELATED 7 WORKING CAPITAL THAT TEND TO MAKE IT ESPECIALLY APPROPRIATE 8 FOR SHORT-TERM DEBT FINANCING? 9 A. Yes. As will be shown later in this testimony, the need for supply-related working 10 capital tends to fluctuate greatly throughout the year. It sometimes falls to or below zero. This self-liquidating characteristic of supply-related working capital makes it 11 12 especially suited for short-term debt financing. This is because providers of short-13 term debt take comfort in the ability of the company to periodically repay the loan 14 and because the company can save on its interest expense by confining its borrowing 15 to only those portions of the year in which working capital is actually needed. 16 17 Q. WHAT SHOULD THE COMMISSION DO TO ALLOCATE SHORT-TERM DEBT 18 TO SUPPLY RELATED WORKING CAPITAL IN A WAY THAT FAIRLY 19 BALANCES THE INTERESTS OF INVESTORS AND RATEPAYERS? A. Because short-term debt may already have been allocated to CWIP and/or to the 20 21 overall cost of capital applied to rate base, I recommend that the Commission use the 22

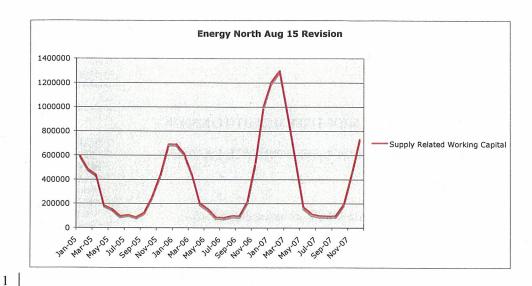
decision tree diagram I have presented on JAR Schedule 1.

1	The first question asked in the decision tree is "Does the company have at least
2	enough short-term debt to finance a) the amount of short-term debt allocated to rate
3	base, and b) CWIP eligible for AFUDC?"
4	
5	Q. WHY IS THIS FIRST STEP OF THE DECISION TREE IMPORTANT?
6	A. It is this step that determines whether or not the regulatory process has or has not
7	already fully accounted for the amount of short-term debt being used by the company.
8	
9	Q. WHAT SHOULD HAPPEN IF A COMPANY HAS MORE SHORT-TERM DEBT
10	THAN IS ACCOUNTED FOR IN STEP ONE?
11	A. If this is the case, then the ratemaking process should allocate the remaining short-
12	term debt to supply-related working capital. If this does not happen, ratepayers will
13	not realize the full benefit of the short-term debt being used by the company.
14	
15	Q. IF IN STEP ONE OF THE DECISION TREE IT WAS DETERMINED THAT THE
16	COMPANY DID NOT HAVE ANY SHORT-TERM DEBT LEFT AFTER
17	ASSIGNMENTS TO EITHER CWIP ELIGIBLE FOR AFUDC OR RATE BASE, IS
18	IT STILL POSSIBLE FOR THE COMMISSION TO PROPERLY CONCLUDE
19	THAT AT LEAST SOME SHORT-TERM DEBT SHOULD BE ALLOCATED TO
20	SUPPLY RELATED WORKING CAPITAL?
21	A. Yes. A company is only entitled to recover prudently incurred costs. Costs are
22	imprudently high and rates are unreasonable if the company fails to use an adequate
23	amount of short-term debt. Therefore, if the reason no short-term debt is left after

1 assignments to CWIP eligible for AFUDC and rate base is that the company failed to 2 properly avail itself of short-term debt, ratepayers should not be penalized for that 3 mistake. If, on the other hand, a company is already using a reasonable amount of 4 short-term debt and that amount has already been fully allocated to CWIP eligible for 5 AFUDC and rate base, it would not be proper to assign any short-term debt to supply-6 related working capital. 7 8 Q. THE DECISION TREE PROVIDES FOR POSSIBLE OUTCOMES WHERE IT IS 9 REASONABLE TO CONCLUDE SUPPLY RELATED WORKING CAPITAL IS 10 BEING FINANCED BY SHORT-TERM DEBT. IS THERE SOMETHING ELSE 11 THE COMMISSION SHOULD CONSIDER TO FURTHER DETERMINE IF 12 SUPPLY RELATED WORKING CAPITAL IS FINANCED BY SHORT-TERM 13 DEBT? 14 A. Yes. The annual fluctuation in the amount of supply-related working capital should be examined. The greater the fluctuation, the more obvious it is that supply-related 15 16 working capital is or should be financed by short-term debt. However, even if the 17 amount of supply-related working capital does not fluctuate very much, it may still be 18 appropriate because of economics to assign short-term debt to supply related working 19 capital provided there is or should be short-term debt in excess of the amount that is 20 allocated to CWIP eligible for AFUDC and rate base.

1	VI. ANALYSIS BY COMPANY	
2		
3	Energy North	
4		
5	A PET	Cormatted: Indent: Left: 0", Hanging: 0.25"
6	SUPPLY RELATED WORKING CAPITAL BALANCE?	·
7	Q. Yes. On August 15, 2008 Energy North provided a 2 nd supplemental response to Staff	ormatted: Superscript
8	1-2 to replace the expense of carrying costs associated with working capital	
9	requirements with the working capital requirements and storage working capital.	
10	1970 for agency change for a make to the second State of Section 1	
11	Q. DO THESE REVISED NUMBERS CHANGE YOUR RECOMMENDATION?	
12	<u>A. No.</u>	
13		
14	Q. DOES ENERGY NORTH HAVE ENOUGH SHORT-TERM DEBT TO FINANCE	
15	THE SHORT-TERM DEBT COMPONENT OF RATE BASE AND CWIP	
16	ELIGIBLE FOR AFUDC?	
17	A. Yes, Energy North has more than enough. In the fourth quarter of 2007, Energy	
18	North had \$59.3 million in short-term debt while the sum of CWIP eligible for	PRODUCTION
19	A FUID C (% 7 million) the short term debt in metal have (% 9 million) storage	Deleted: and
19		Deleted: 9
20	working capital (\$20.4 million) and gas cost related to working capital interest	Deleted:
21	<u> </u>	Deleted: 23
41		inserted: 23
22	Similar excesses were recorded for each of the previous three quarters.	Deleted: 15
22		peleted: .2
23	<u> </u>	inserted: 2
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Q. IS THE SHORT-TERM DEBT BALANCE IN EXCESS OF THE AMOUNT	<u> </u>
	Deleted: AND
ALLOCATED TO RATE BASE, CWIP ELIGIBLE FOR AFUDC, STORAGE	
WORKING CAPITAL AND GAS COST RELATED TO WORKING CAPITAL	
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INTEREST AT LEAST AS LARGE AS THE SUPPLY RELATED WORKING	
CAPITAL?	<u>£136.1014.a-</u>
	Deleted: 22
A. Yes. The amount of supply-related working capital in 2007 ranged between \$95,000	
	Deleted: to a
and \$730,000. The short-term debt remaining after allocations to rate base. CWIP	Deleted: 110
eligible for AFLIDC storage working conital and gas cost related to working conital	Deleted: and to
cligible for ATODC, storage working capital and gas cost related to working capital	(Palatan) is
interest is substantially higher than this supply-related working capital range. As	Deleted: is
involves to passementary inginer than this suppry related working capital range. As	
shown on JAR Schedule 2 -Aug 15 Revision, the excess for the four quarters of 2007	
1	Deleted: 2
varied between \$14,9 million and \$22,5 million.	Deleted: 2.8
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O TO ENERGY MORTING CURRING REPORTED WORKING CARREAT	
Q. IS ENERGY NORTH S SUPPLY RELATED WORKING CAPITAL	
REQUIREMENT CYCLICAL IN NATURE?	
A. Yes. As shown in the graph below for the period January, 2005 to December 31,	
2007 Engage North's symply related weating conital region and and in the with	
2007, Energy North's supply-related working capital varied cyclically with a	
minimum of \$80,000 and a maximum of positive \$1.3 million. This cyclical	Deleted: negative
minimum or posterio direct a maximum or posterio di sa minione i mis cyclical	Deleted: 60
variation in the amount of supply-related working capital indicates that short-term	Deleted: 1
Suprair manage state to the contract of the co	Deleted: 2
debt is an ideal funding source for Energy North.	Deleted: 0,000.
	ALLOCATED TO RATE BASE, CWIP ELIGIBLE FOR AFUDC, STORAGE WORKING CAPITAL AND GAS COST RELATED TO WORKING CAPITAL INTEREST AT LEAST AS LARGE AS THE SUPPLY RELATED WORKING CAPITAL? A. Yes. The amount of supply-related working capital in 2007 ranged between \$95,000 and \$730,000. The short-term debt remaining after allocations to rate base, CWIP eligible for AFUDC, storage working capital and gas cost related to working capital interest is substantially higher than this supply-related working capital range. As shown on JAR Schedule 2—Aug 15 Revision, the excess for the four quarters of 2007 varied between \$14.9 million and \$22.5 million. Q. IS ENERGY NORTH'S SUPPLY RELATED WORKING CAPITAL REQUIREMENT CYCLICAL IN NATURE? A. Yes. As shown in the graph below for the period January, 2005 to December 31, 2007, Energy North's supply-related working capital varied cyclically with a minimum of \$80,000 and a maximum of positive \$1.3 million. This cyclical variation in the amount of supply-related working capital indicates that short-term



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Source: 2nd Supplemental Attachment to Staff 1-2

Deleted: Response to Request No.: Staff 1-2 - Set 1

Q. WHAT COST RATE DO YOU RECOMMEND BE APPLIED TO ENERGY

NORTH'S SUPPLY RELATED WORKING CAPITAL?

A. The cost of short-term debt should be assigned to Energy North's supply-related working capital. I reach this conclusion for two reasons:

 There is enough short-term debt to cover supply related working capital after allocations to rate base, funding requirements for CWIP eligible for AFUDC, storage working capital requirements and gas cost related to working capital interest, and

10 11

12

Energy North's supply-related working capital varies on a cyclical basis and is therefore most likely best financed with short-term debt. Deleted: funding

Deleted: CWIP eligible for AFUDC and the short-term debt component of rate base in the company's last rate case,

2	v	
3	<u>Gr</u>	anite State
4	Q.	DOES GRANITE STATE HAVE ENOUGH SHORT-TERM DEBT TO FINANCE
5		THE AMOUNT OF SHORT-TERM DEBT ALLOCATED TO RATE BASE AND
6		CWIP ELIGIBLE FOR AFUDC?
7	A.	No. Granite State does not report any short-term debt in its balance sheet. (See
8		discovery response to Staff 1-8)
9		
10	Q.	IS THE SHORT-TERM DEBT BALANCE IN EXCESS OF THE AMOUNT
11		ALLOCATED TO RATE BASE AND CWIP ELIGIBLE FOR AFUDC AT LEAST
12		AS LARGE AS THE SUPPLY RELATED WORKING CAPITAL?
13	A	No.
14		
15	Q.	DOES GRANITE STATE'S SUPPLY RELATED WORKING CAPITAL VARY
16		ON A CYCLICAL BASIS?
17	A.	Yes. The graph below shows that Granite State's supply-related working capital
18		varied cyclically between negative \$25,000 and positive \$15,000 during the period
19		May 2006 to December 31, 2007, indicating that short-term debt is the best funding
20		source.
21		•
22		

Deleted: Q. HAVE YOU MADE REVISIONS TO YOUR TESTIMONY?¶

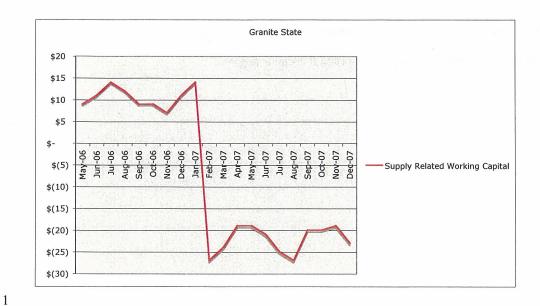
A. Yes. Because of a data entry error I changed the related working capital numbers in April, October and December,¶

Source: Energy North 1-2, pages 9-11.¶

Q. AFTER CORRECTING FOR THESE DATA ENTERGY ERRORS DOES THIS CHANGE YOUR RECOMMENDATION?¶ A. No. As you can see on the grap

A. No. As you can see on the graph of page 14 of my testimony the cyclical nature of Energy North's supply related capital has not changed and still justifies the use the short term rate to apply to Energy North's supply related working capital.¶

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2 Source: Response to Request No.: Staff 1-2 - Set 1

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- 4 Q. WHAT COST RATE DO YOU RECOMMEND BE APPLIED TO GRANITE
- 5 STATE'S SUPPLY RELATED WORKING CAPITAL?
- 6 A. Even though the Company does not have any short-term debt, the cyclical nature of
- 7 its supply-related working capital indicates that short-term debt should be used to
- 8 finance that need at a cost equal to the cost of the Company's short-term debt.

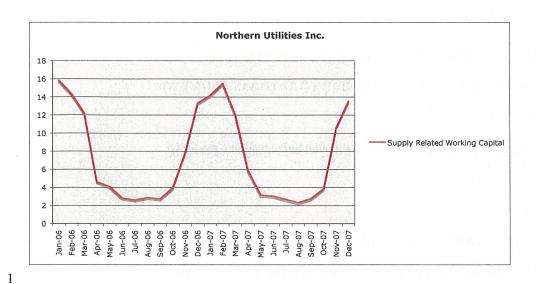
- 10 Q. WHAT IS THE EFFECT OF APPLYING THE SHORT-TERM DEBT RATE
- 11 INSTEAD OF THE OVERALL COST OF CAPITAL TO GRANITE STATE'S
- 12 SUPPLY RELATED WORKING CAPITAL?
- 13 A. As shown in Granite State's response to Staff 1-1, the Company has determined that
- its supply-related working capital is negative. This means supply-related working
- capital generates savings to ratepayers. Use of the short-term debt rate instead of the

- 1 overall cost of capital for calculating carrying charges will lower the savings to
- 2 ratepayers as long as the supply-related working capital remains negative.

2.	Northern Utilities, Inc. ("Northern")
3	ologica degre continua, con percono por consenso de mesos de mesos de mesos de la consenso de la consenso de l
4	Q. DID NORTHERN PROVIDE ADDITIONAL REVISIONS TO THEIR SUPPLY
5	RELATED WORKING CAPITAL BALANCE?
6	A. Yes. On August 16, 2008 Northern provided a 2 nd supplemental response to Staff 1-2
7	to replace the expense of carrying costs associated with working capital requirements
8	with the working capital requirements and include gas inventory.
9	
10	Q. DO THESE REVISED NUMBERS CHANGE YOUR RECOMMENDATION?
11	A. No.
12	
13	Q. DOES NORTHERN HAVE ENOUGH SHORT-TERM DEBT TO FINANCE THE
14	AMOUNT OF SHORT-TERM DEBT ALLOCATED TO RATE BASE AND CWIP
15	ELIGIBLE FOR AFUDC?
16	A. Yes. Most, if not all, of Northern's working capital is being funded by short-term
17	debt that is not accounted for elsewhere in the ratemaking process. In the fourth
18	quarter of 2007, for example, Northern had \$31.1 million in short-term debt while the
19	sum of CWIP eligible for AFUDC, the short-term debt component of rate base and
19	Suill of Cwir engible for Arobo, the short-term debt component of rate base and Deleted: only
20	storage working capital was \$11,4 million. (See JAR Schedule 5-Aug 15 Revision). Deleted: 2
21	Similar excesses were recorded for the first and third quarters of 2007. In the second
-	Deleted: 4
22	quarter of 2007 when the amount of short-term debt was slightly insufficient it was of
	The company reported that short-term debt was 0% of its capital structure (See response Deleted: the short-term debt balanced was insufficient by \$1.3 million

 $^{^{\}rm 1}$ The company reported that short-term debt was 0% of its capital structure (See response to Staff 1-7)

1	only because the amount of short-term debt had declined from over \$25 million to
2	less than \$10 million. This means there was more than enough availability of short-
3	term debt financing even in this one quarter to fully provide financing for supply-
4	related working capital.
5	
6	Q. IS THE SHORT-TERM DEBT BALANCE IN EXCESS OF THE AMOUNT
7	ALLOCATED TO RATE BASE, CWIP ELIGIBLE FOR AFUDC AND STORAGE
8	WORKING CAPITAL AT LEAST AS LARGE AS THE SUPPLY RELATED
9	WORKING CAPITAL?
10	A. Yes for three of the four quarters in 2007.
10 11	
11	A. Yes for three of the four quarters in 2007.
11 12	A. Yes for three of the four quarters in 2007. Q. DOES NORTHERN'S SUPPLY RELATED WORKING CAPITAL
11 12 13	A. Yes for three of the four quarters in 2007, Q. DOES NORTHERN'S SUPPLY RELATED WORKING CAPITAL REQUIREMENT VARY ON A CYCLICAL BASIS?
11 12 13 14	A. Yes for three of the four quarters in 2007. Q. DOES NORTHERN'S SUPPLY RELATED WORKING CAPITAL REQUIREMENT VARY ON A CYCLICAL BASIS? A. Yes. The graph below shows that Northern's supply-related working capital varied



2 Source: Response to Request No.: Staff 1-2 - Set 1

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Q. WHAT COST RATE DO YOU RECOMMEND BE APPLIED TO NORTHERN'S

5 SUPPLY RELATED WORKING CAPITAL?

6 A. Since there is enough short-term debt to cover the supply-related working capital after

funding CWIP eligible for AFUDC, the short-term debt component of rate base and

storage working capital, the Company's cost of short-term debt should be used.

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2	Q.	DOES PSNH HAVE ENOUGH SHORT-TERM DEBT TO FINANCE THE
3		AMOUNT OF SHORT-TERM DEBT ALLOCATED TO RATE BASE AND CWIP
4		ELIGIBLE FOR AFUDC?
5	A	In 2007 PSNH did not have enough short-term debt in all but one quarter (See JAR
6		Schedule 6- Revised, line 5).
7	1	
8	Q.	IS THE SHORT-TERM DEBT BALANCE IN EXCESS OF THE AMOUNT
9		ALLOCATED TO THE AFUDC RATE AND TO RATE BASE AT LEAST AS
10		LARGE AS THE SUPPLY RELATED WORKING CAPITAL?
11	A	. No. PSNH's CWIP balance eligible for AFUDC was higher than the short-term debt
12		balance.
13		
14	Q.	DOES PSNH'S SUPPLY RELATED WORKING CAPITAL VARY ON A
15		CYCLICAL BASIS?
16	A.	PSNH has not provided the necessary computation. Therefore, I do not know the
17		extent to which its supply-related working capital varies throughout the year.
18		
19	Q.	WHAT COST RATE DO YOU RECOMMEND BE APPLIED TO PSNH'S
20		SUPPLY RELATED WORKING CAPITAL?
21	A.	PSNH has not made a claim for any supply-related working capital (See PSNH
22		response to Staff 1-01), and has stated that it has not even computed the amount of
23		such capital needed to run its business. If, in the future, the company should make

1 <u>PSNH</u>

- such a computation, the principles laid out in this testimony should govern the
- 2 determination of the appropriate carrying charge rate.

1	
2	<u>Unitil</u>
3	
4	Q. DID UNITIL PROVIDE ADDITIONAL REVISIONS TO THEIR SUPPLY
5	RELATED WORKING CAPITAL BALANCE?
6	Q. Yes. On May 29, 2008 Unitil provided Supplemental Response to Request No. Staff
7	1-2 to replace the expense of carrying costs associated with working capital requirements
8	with the working capital requirements.
9	
10	Q. DO THESE REVISED NUMBERS CHANGE YOUR RECOMMENDATION?
11	A. No.
12	
13	Q. DOES UNITIL HAVE ENOUGH SHORT-TERM DEBT TO FINANCE THE
14	SHORT-TERM DEBT ALLOCATED TO RATE BASE AND CWIP ELIGIBLE
15	FOR AFUDC?
16	A. Although Unitil did not always utilize enough short-term debt in every quarter of
17	2007 it had access to enough short-term debt throughout the year. Deleted: It did in March and
18	December 2007. However, in June and September 2007 the Company
19	Q. IS THE REASON THAT UNITIL DOES NOT HAVE ENOUGH SHORT-TERM had about \$4.3 million and \$2.2 million respectfully, which were no sufficient to finance rate base and
20	DEBT TO FINANCE SUPPLY RELATED WORKING CAPITAL BECAUSE IT IS CWIP eligible for AFUDC. (See JAR Schedule 6, line 3) [
21	NOT USING ENOUGH SHORT-TERM DEBT? Q. IN THE FIRST AND FOURT QUARTERS, WAS THE EXCESS
22	A. Yes. As of the of March, June, September and December of 2007 Unitil's amount of SUPPLY RELATED WORKING CAPITAL?
23	shot-term debt needed to cover CWIP earning AFUDC and short-term debt accounted

1	for in rate base peaked at 14.179 million. See JAR Schedule 6 –May 19 Revision.
2	UES had enough short-term debt available for all months in 2007 and enough to
3	cover the peak level of CWIP eligible for AFUDC, supply related working capital and
4	short-term debt accounted for in rate base.
5	
6	Q. HOW MUCH SHORT-TERM DEBT DOES UNITIL HAVE ACCESS TO?
7	A. In Order No. 24,168 (May 2, 2003) The Commission granted UES access to \$22
8	million of short-term debt reverting to \$16 million after April 30, 2004. On June 12,
9	2008 UES filed a petition to increase their short-term debt limit to \$24 million for a
10	few reasons, including "working capital for energy-related cots." On July 23, 2008
11	The Commission granted UES permission to increase their short-term debt limit to
12	\$24 million.
13	
14	

Q. DOES UNITIL'S SUPPLY RELATED WORKING CAPITAL VARY ON A

15

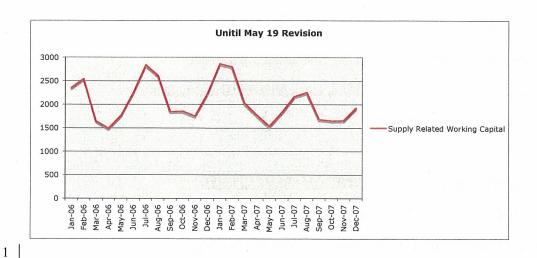
16

CYCLICAL BASIS?

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Deleted: . In Order No. 24,168 the Commission granted UES' request to increase its short-term debt limit from \$16 million to \$22 million for a period not to exceed six months. In June and September 2007 Unitil was not utilizing enough short-term debt to cover CWIP earning AFUDC and short-term debt allocated to rate base but this was not because of the limit imposed by the Commission. In June Unitil would have required only \$10.4 million and in September only \$11.5 million to cover the three requirements. (See JAR Schedule 6, line 6)¶

Deleted: A second way of viewing Unitil's situation is provided by Unitil's response to Staff 1-7, which shows that the level of short-term debt used by Unitil in 2007 varied between 4.8% and 10.2% of total capital. Had the short-term debt percentage remained at the 10.2% level in each quarter, there would have been significantly more than enough left over to cover supply-related working capital. ¶



A. Yes. As shown below, Unitil's supply-related working capital varied cyclically
between about \$1.5 million and \$2.9 million. Although the level of supply-related
working capital did not dip to zero like some of the other companies covered in this
testimony, the swing is sufficient to indicate that short-term debt is most likely the
best form of funding.

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Source: Supplemental Response, May 19, 2008 to Request No. Staff 1-2

Q. WHAT COST RATE DO YOU RECOMMEND BE APPLIED TO UNITIL'S

11 SUPPLY RELATED WORKING CAPITAL?

12 A. It is appropriate at this time for Unitil to charge ratepayers at the cost of short-term

debt_for supply-related working capital.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

16 A. YES.

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9

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Deleted: Q HAS UNITIL
PROVIDED REVISED SUPPLY
RELATED WORKED CAPITAL?¶
<sp>A. Yes. On May 19, 2008
Unitil sent a supplemental response
to Request No. Staff – 1-2¶
¶

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No.: Staff 1-2 - Set 1