#### STATE OF NEW HAMPSHIRE

## PUBLIC UTILITIES COMMISSION

2000 PG-08-009

DG 08-009

Ting Co

In the Matter of:
EnergyNorth Natural Gas, Inc d/b/a National Grid NH
Petition for Permanent Rate Increase

**Direct Testimony** 

of

Stephen P. Frink Assistant Director – Gas & Water Division

October 31, 2008

1		New Hampshire Public Utilities Commission
2		EnergyNorth Natural Gas, Inc. d/b/a National Grid NH
3 4		Petition for Permanent Rate Increase
5		DG 08-009
6 7 8		Testimony of Stephen P. Frink
9	Q.	Please state your name, occupation and business address.
10	A.	My name is Stephen P. Frink and I am employed by the New Hampshire Public Utilities
11		Commission (Commission) as Assistant Director of the Gas & Water Division. My business
12		address is 21 S. Fruit Street, Suite 10, Concord, New Hampshire 03301.
13	Q.	Please summarize your educational and professional experience.
14	A.	See Attachment SPF-20.
15	Q.	What is the purpose of your testimony in this proceeding?
16	A.	The purpose of my testimony is to provide Staff's recommendation for a revenue requirement
17		for EnergyNorth Natural Gas, Inc. d/b/a National Grid NH (EnergyNorth or the Company),
18		and recommendations on the Company's proposals to increase the returned check fee,
19		increase the penalty for unauthorized volumes taken by customers, eliminate 280 day and
20		interruptible sales service, eliminate the service agreements for 280 Day and Interruptible
21		Transportation Service as attachments to the tariff, implement a new service and main
22		extension policy and establish a pension and post retirement benefits other than pensions
23		(OPEB) reconciliation mechanism.
24	Q.	Please summarize Staff's recommendations on these issues.
25	<b>A.</b>	Staff recommends: an increase in the revenue requirement of \$1,667,996; that the

- Commission withhold judgment on eliminating 280 day and interruptible sales service and changing the service and main extension policy; approval of the other proposed tariff changes; and, that the proposed pension and OPEB reconciliation mechanism be denied.
- 4 Q. Are temporary rates currently in effect in this docket?
- Yes. On August 18, 2008 the Commission issued Order No. 24,888 authorizing a temporary revenue requirement increase of \$6.6 million, resulting in an increase in customer bills of 3.75%, on average.
- 8 Q. What is the increase to the revenue requirement proposed by EnergyNorth?
- 9 **A.** On February 25, 2008, EnergyNorth filed testimony and schedules requesting an additional \$9.9 million in annual revenues, representing a 5.6% increase. Following the last technical session held on October 2-3, 2008, EnergyNorth provided Staff with revised schedules with a proposed revenue requirement of \$10.1 million. *See Attachment SPF-19*.
- Q. What is Staff's recommendation with respect to a revenue requirement?
- As shown on Attachment SPF-1, Staff recommends an increase in the revenue requirement of \$1,667,996 based on pro formed test year income of \$10,302,185, as detailed on SPF-2. The increase is 0.94% over total test year revenue and 4.05% over test year delivery revenues.

  This revenue requirement is calculated on total rate base of \$140,913,605, as detailed on SPF-3, and provides for an overall rate of return of 8.02%, shown on SPF-4, consistent with the
- 20 Q. Briefly describe EnergyNorth's filing.

testimony of Staff witness Pradip Chattopadhyay.

21 **A.** Per the terms of the merger settlement agreement approved by the Commission in Order No. 24,777 (2007), EnergyNorth agreed to file a distribution rate case no later than six months from the closing of the merger, use a test year based on the 12 month period ending with the

quarter immediately preceding the close, provide customers a synergy savings credit of \$619,000 and use a capital structure composed of 50 percent equity and 50 percent debt. The debt financing settlement agreement approved by the Commission in Order No. 24,824 (February 29, 2008) set the cost of debt at 7.02% for the rate case. The test year utilized by EnergyNorth is the twelve months ending June 30, 2007, the 12 months preceding the last quarter of the close of the merger.

#### Q. Please describe Staff's review of the filing.

Staff issued four rounds of discovery, held three substantive technical sessions and performed a comprehensive audit. In performing its audit, the Commission Audit Staff issued numerous audit requests, performed on-site visits, issued a draft report, held an audit exit interview with the Company and issued a final report on September 29, 2008. Staff's audit finds were addressed by the Company and EnergyNorth filed revised rate schedules to correct the errors identified in the audit report and through discovery.

A.

#### Revenue Requirement

- Q. Please explain how Staff's schedules were developed.
- **A.** Staff's schedules begin with the EnergyNorth revised schedules and make adjustments to the Company's pro-formed schedules.
- 19 Q. Why does Staff begin with EnergyNorth's revised pro-formed test year schedules?
- A. For the most part, Staff agrees with the pro forma adjustments made by EnergyNorth and contained in the revised schedules. EnergyNorth corrected a number of mistakes identified in the audit report and through the discovery process. The Company's testimony and schedules accurately describe and account for those corrections. Therefore, Staff's testimony and

schedules only addresses adjustments beyond those the Company and Staff have already agreed on.

#### Q. What areas were adjusted and what was the basis for those adjustments?

A. Staff adjusted the return on equity as recommended and explained by Mr. Chattopadhyay.

Rate base was adjusted to eliminate non-investor funded items and to reduce the working

capital allowance as recommended and explained by Staff witness George McCluskey.

Expenses were adjusted to eliminate non-recurring items, eliminate test year expenses that

should have been excluded per the terms of Commission approved settlement agreements,

reflect known and measurable changes in the 12 months following the test year and adjust for

enhanced collections costs intended to reduce the Company's bad debt expense.

11

12

13

26

3

#### Rate Base Adjustments

#### Q. What are Staff's rate base adjustments?

A. Staff has eliminated the following items from EnergyNorth's updated proposed rate base of \$149,651,960: customer deposits, interest on customer deposits, non-interest bearing construction-work-in-progress (CWIP) and gas jobs in progress. In addition, the cash working capital allowance has been reduced to reflect the recommendations of Mr.

McCluskey and the Deferred Income Taxes have been increased to reflect the recommendations of Mr. Cunningham. Rate Base adjustments are as follows:

20	Customer Deposits	(\$180,305)
21	Interest on Customer Deposits	(\$51,661)
22	Non-interest Bearing CWIP	(\$4,510,701)
23	Gas Jobs in Progress	(\$1,414,912)
24	Cash Working Capital Allowance	(\$2,580,776)
25	Total	(\$8,738,355)

#### Q. What is Staff's rate base recommendation?

- 1 **A.** \$140,913,605.
- 2 Q. Why did EnergyNorth include customer deposits and interest in rate base?
- A. The Company claims that customer deposits and interest on earned on those deposits are borne by shareholders. Although the Company does not elaborate as to how customer deposits are a cost borne by shareholders, it does state that interest earned on those deposits is paid by the Company and that expense has not been reflected in the revenue requirement. See Attachment SPF-5 (Staff DR 3-71 & 4-6).
- 8 Q. Why should customer deposits and interest on customer deposits be excluded?
- Ocustomer deposits is cash deposited with the Company by customers as security for payment of service and do not require an investment by shareholders. Customer deposits can either be deposited in an interest bearing account or used to finance Company operations. If invested in an interest bearing account, the interest earned and paid does not come from Company investors. If used to fund Company operations, the interest earned and paid represents carrying costs that the Company would not have incurred absent the customer deposits.
- Q. What is the amount of customer deposits and interest on customer deposits that you recommend be removed from rate base?
- 17 **A.** \$180,305 and \$51,661, respectively. Since Staff does not have the monthly balances for these accounts, Staff calculated the test year average using quarterly balances. *See Attachment*19 *SPF-3 (p.1)*.
- Q. Why does the Company include non-interest bearing CWIP in rate base?
- 21 **A.** The plant that makes up "non-interest bearing CWIP" is purchased equipment or construction projects of short duration and low cost that did not accrue AFUDC (allowance for funds used during construction). EnergyNorth asserts that all of the plant in the "non-interest bearing

CWIP" account during the test year is now in service, and therefore inclusion of this amount 1 in rates is consistent with the anti-CWIP statute, RSA 378:30-a. See Attachment SPF-6 2 (Staff DR 1-24 & 4-6). 3 Why should non-interest bearing CWIP be excluded from rate base? Q. 4 New Hampshire's anti-CWIP statute, RSA 378:30-a, states: 5 A. "Public utility rates or charges shall not in any manner be based on the cost of construction 6 work in progress. All costs of construction work in progress, including, but not limited to, 7 any costs associated with constructing, owning, maintaining or financing construction work in 8 progress, shall not be included in a utility's rate base nor be allowed as an expense for rate 9 making purposes until, and not before, said construction project is actually providing service 10 to customers." 11 12 13 This statute absolutely prohibits all construction work in progress from being included in rate base regardless of whether it is interest bearing or non-interest bearing. Nevertheless, the 14 statute does provide that a construction project can be included in rate base when it is actually 15 providing service to customers. In addition, RSA 378: 28 provides in part: 16 "The commission shall not include in permanent rates any return on any plant, equipment, or 17 capital improvement which has not first been found by the commission to be prudent, used, 18 and useful." See also RSA 378:27. 19

Reading these two statutes together, it is evident that the costs of construction work in progress must be excluded from rate base until such time as the construction work has been completed and the construction project has been placed in service, i.e., it has become used and useful in serving the public.

20

21

22

23

24

25

26

27

The Commission's longstanding ratemaking practice of the use of a 13-month average rate base is consistent with the two statutes under which known and measurable changes in rate base occurring after the test year are excluded from rate base for purposes of establishing

new rates.1 This practice recognizes that the impact on the revenue requirement due to capital investments beyond the test year cannot be reasonably determined. There can be a considerable lag between the time when new plant is installed and related sales growth or cost savings are realized. A new main or system upgrade that makes gas available to more customers is likely to increase sales over a number of years. Likewise, cast iron and bare steel replacements are unlikely to reduce operation and maintenance expenses in the near term but could do so over the long run as the number and severity of the leaks go down. Therefore, regardless of whether or not the "non-interest bearing CWIP" was placed in service during the 12 months following the test year, it should not be included in rate base.

- 10 Q. What is the amount of non-interest bearing CWIP removed from rate base?
- 11 **A.** \$4,510,701.

1

2

3

4

5

6

7

8

- 12 Q. Why does EnergyNorth include "gas jobs in progress" in rate base?
- A. For the same reasons it included "non-interest bearing CWIP." What distinguishes "gas jobs in progress" from "non-interest bearing CWIP" is that the "gas jobs in progress" are projects that are to be reimbursed by a governmental agency. See Attachment SPF-7 (Staff DR 4-7).
- Q. Why should "gas jobs in progress" be excluded from rate base?
- A. For the same reasons that apply to "non-interest bearing CWIP." In addition, other than carrying charges pending reimbursement, those projects are not funded by investors but by government agencies.
- Q. What is the amount of "gas jobs in progress" removed from rate base?
- 21 **A.** \$1,414,912.
- Q. What is the amount of the reduction to the working capital allowance?

<sup>1</sup> This is to be contrasted with the Commission's practice of allowing recovery of known and measurable changes in

1 **A.** \$2,580,776, the adjustment recommended in Mr. McCluskey's testimony regarding the lead/lag on delivery costs and revenues.

3

4

5

#### **Expense Adjustments**

#### Q. What are Staff's expense adjustments?

- A. Staff has decreased the expenses to remove advertising and promotional expenses, reduce
  health and medical expenses, eliminate test year expenses for work performed in two dockets
  that the Company agreed not to seek recovery of, reduce the bad debt expense, reduce the
  costs to implement an enhanced collection policy, and reduce the pension and OPEB expense
  and depreciation expense as recommended and explained by Staff witness James
- 11 Cunningham. Expense adjustments are as follows:

12	Advertising & Promotional	(\$778,317)
13	Health & Medical	(\$81,669)
14	Financing & Thermal Billing	(\$114,226)
15	Bad Debt	(\$477,451)
16	Enhanced Collection Policy	(\$283,071)
17	Pension & OPEB	(\$336,646)
18	Depreciation	(\$2,194,792)

- 19 Q. Please explain the advertising and promotional expense.
- During the test year EnergyNorth ran incentive programs designed to increase oil to natural gas conversions, such as providing free gas-fired boilers and other conversion equipment to commercial and industrial customers. See Attachment SPF-8 (OCA DR 2-15(m)).
- Q. Why did EnergyNorth include those advertising and promotional expenses in calculating its revenue requirement?
- 25 A. EnergyNorth cites Puc 510.03(a)(7) which allows for recovery of advertising if "consistent

4	(Tech Session DR 1-39).
3	advertising designed to drive growth in various customer markets. See Attachment SPF-9
2	growth forecast contained in its most recently filed IRP is an assumed level of promotional
1	with the utility's approved integrated resource plan," claiming that implicit in the Company's

- Q. Do Commission rules allow for full recovery of advertising costs consistent with a utility's IRP?
- A. No, Puc 510.03(d) states "no more than 50% if costs provided for in a utility's IRP shall be borne by ratepayers." This rule allows limited recovery of costs but only for costs provided for in a utility's IRP approved by the Commission.
- 10 Q. Are the advertising and promotional programs in EnergyNorth's IRP?
- 11 **A.** Nowhere in EnergyNorth's IRP filed in Docket No. 06-105 is there a description of

  12 advertising and promotional programs and the role those programs play in developing the

  13 demand forecast. In addition, the Commission has not yet ruled on the adequacy of the IRP in

  14 the pending docket.
- 15 Q. Are there other reasons the incentive program should be discontinued?
- Yes. The Commission does not normally encourage ratepayer-funded competition regarding 16 Α. the use of one energy source over another and giving away free equipment to convert 17 customers does that. For example, in the Concord Steam Corporation 2007-2008 cost of 18 energy proceeding, Docket No. 07-098, Staff was informed that Concord Steam had recently 19 20 lost a large customer, the Pleasant View Nursing Home, to EnergyNorth because 21 EnergyNorth paid the Nursing Home's capital costs to convert from steam service to natural 22 gas. Customers and potential customers benefit from having multiple energy options but an 23 incentive program that favors one energy source over another may not be in the public interest

and should be looked at closely. EnergyNorth may eventually fully recover the capital costs associated with converting the Nursing Home from revenues associated with the Nursing Home, but in the short term that cost is being recovered from other customers and Concord Steam customers are paying higher rates as a result of the conversion.

A.

Another reason the program should be discontinued is the significant discrepancy between oil and gas prices that now exists, obviating the need for company financed incentives for customers to convert from oil to gas. At the 2008-2009 winter cost of gas preceding, Docket DG 08-106, company witness Theodore Poe testified there has been a large increase in service requests:

- Q. Okay. With a large disparity between fuel oil and natural gas pricing during this past spring and summer, did the Company experience above average customer conversions from fuel oil to natural gas heating systems?
- A. (Poe) Yes, it did. Indeed we did an above-average amount of conversion requests.

# Q. What amount of the advertising and promotional expenses do you recommend be removed?

- The incentive program test year expenses totaled \$685,317 and other advertising expenses totaling approximately \$93,000 were identified as test year expenses included in the IRP, a total of \$778,317. In Staff's view, the question of whether those expenses were implicit in the IRP and, therefore 50% of such costs is permissible for recovery per the Commission rule, is rendered moot because incentive program should be discontinued for the reasons cited above and the Company should be able to achieve a comparable number of conversions without the incentives and the incentive program favors one energy option over another.
- Q. Please explain the health and medical expense adjustment.
- **A.** EnergyNorth's revenue requirement includes a pro forma adjustment increasing the Health and Hospitalization expense \$206,116 to reflect the increase in that expense for the period

- January 1, 2008 through December 1, 2008. The increase in Health and Hospitalization based 1 on the 12 months following the test year, July 1, 2007 through June 30, 2008 is \$124,447. 2 Staff's pro forma adjustment decreases the Health and Hospitalization expense to remove the 3 increased costs associated with the period beyond the 12 months following the test year. See 4 Attachment SPF-10 (OCA DR 1-13).
- What is the amount of Health and Hospitalization adjustment? 6 Q.
- An expense reduction of \$81,669. 7 A.

- Explain the adjustment to remove expenses related to the financing and thermal billing Q. 8 9 proceedings.
- The settlement agreements approved by the Commission in Order No. 24,824 (February 29, A. 10 2008) in Docket No. DG 06-122 (financing) and Order No. 24,752 (May 25, 2007) in Docket 11 No. DG 06-154 (thermal billing) expressly preclude EnergyNorth from seeking recovery of 12 those costs from rate payers. EnergyNorth's revised revenue requirement reduces test year 13 expenses to remove outside legal costs related to those dockets but made no adjustment for 14 incremental O&M costs related to those dockets. Staff has reduced test year expenses to 15 16 eliminate O&M expenses that would not have been charged EnergyNorth absent those 17 dockets.
- Why did EnergyNorth only reduce expenses for outside legal costs? Ο. 18
- 19 A. EnergyNorth explained that all other work related to that docket was performed by in-house 20 personnel.
- Q. Was all other work related to those dockets performed by in-house personnel? 21
- 22 A. Yes, if in-house personnel is considered both EnergyNorth and service company employees.
- 23 Q. How is service company employee labor charged to EnergyNorth?

- A. In most cases service company employee time is not direct charged to EnergyNorth but is allocated on a three part formula and, therefore, labor charges are not tied to the actual hours spent working on specific EnergyNorth assignments. Work done on the financing and thermal billing dockets would have had no impact on test year expenses for employees whose labor is charged through the three part formula, as the employee time and wages are not one of the components of the formula.
- Q. Did any of the service company employees who worked on those dockets direct charge their labor to EnergyNorth?
- Yes, in-house counsel direct charges his work hours to EnergyNorth. Consequently, the charge for his time spent on the financing and thermal billing dockets increased service company charges to EnergyNorth.
- 12 Q. Did in-house counsel play a large role in those dockets?
- Yes, particularly in the thermal billing investigation where he headed up the investigation and prepared the final report.
- Q. Why did EnergyNorth not make an adjustment to test year expenses for his time?
- 16 A. EnergyNorth explained that it was very difficult to determine what the additional test year 17 charges would have been. In-house counsel charges no more than 40 hours per week and that 18 time is charged directly to the company he works for but is not assigned by docket. If he 19 spent 80 hours working on numerous EnergyNorth dockets in a one week period, the charge 20 to EnergyNorth would be for 40 hours of labor and overheads with no breakdown as to which 21 dockets were worked on. EnergyNorth is obligated to observe the terms of the settlement agreements, which would necessarily include the obligation to account for the time of its in-22 23 house counsel spent on these dockets since this time represents a cost incurred in connection

5	Q.	How did Staff determine the additional test year charge for work on those dockets?
4		not reducing the revenue requirement.
3		would have been as an excuse for not providing an estimate of the time spent or a reason for
2		properly rely on the alleged difficulty of determining what the additional test year charges
1		with the dockets to be excluded from rate recovery. Accordingly, the Company may not

Based on the test year expenses for outside counsel involved in these dockets Staff estimated
the hours spent by outside counsel and used that as a basis for determining the test year hours
and expenses related to in-house counsel's time on those dockets. Staff assumed five hours of
in-house counsel time for each hour of out-side counsel.

#### Q. How did Staff arrive at a 5:1 ratio for in-house/outside counsel hours?

- 11 **A.** Both the financing and thermal billing dockets were lengthy proceedings that required a great deal of discovery and investigation. Order No. 24,752, approving the settlement agreement in the thermal billing docket states (p. 8):
- 14 "The Company's investigation was conducted by its senior counsel, Thomas P. O'Neill. He reviewed the following records: available gas control records related to gas measurement 15 equipment at the Company's production facilities in New Hampshire, gas supply integration 16 team notes from the KeySpan Corporation/EnergyNorth merger, revenue neutral rate redesign 17 backup on billing determinants, Form E-6 reports, gas control records related to the Btu 18 content of gas received from the Tennessee Gas Pipeline Company and Dracut, 19 20 Massachusetts, and bills for an individual customer for calendar years 1999, 2000, and 2001. Based on this review and interviews with Company personnel, the Company was able to 21 satisfy itself that the thermal factors had been based on the "wet" method through May 24. 22 2001." 23 24

In-house counsel is employed for cost efficiency and convenience and is utilized accordingly.

Based on the record in the thermal billing docket, a 5:1 ratio seems a reasonable

approximation.

10

27

28

29

Q. What is the amount of the adjustment to remove expenses related to the financing and thermal billing proceedings?

- 1 **A.** Using applicable wages and labor burden for the period, Staff calculated additional test year charges of \$114,226.
- 3 Q. Please explain Staff's adjustment to the bad debt expense.
- A. Staff filed testimony in Docket No. DG 07-050, stating that the Company's bad debt expense is extremely high compared to other New Hampshire utilities as a result of poor collection practices and recommends only limited recovery of those expenses. Staff asks that the Commission take administrative notice of the record in DG 07-050 and Staff incorporates its testimony in DG 07-050 in this docket. Staff's position has not changed. Consistent with Staff's recommendation in DG 07-050, Staff has reduced the bad debt expense to 1.54% of revenues (delivery revenues).
- 11 Q. What is EnergyNorth's proposed bad debt percentage and annual expense?
- 12 A. 2.54% of total revenues for an annual expense of \$4,593,826.
- Q. What is Staff's proposed bad debt percentage and annual expense?
- 1.54% of total revenues for an annual expense of \$2,785,233.
- 15 Q. What is the amount of the reduction in bad debt expense?
- 16 A. The amount of the reduction in bad debt expense related to delivery revenues is \$477,451.
- 17 Q. What is the enhanced collection policy?
- As required in the partial settlement approved by the Commission in Order No. in DG 07-050,
  EnergyNorth filed a written plan setting forth its proposed collections process on a goingforward basis (enhanced collection policy). The settlement allows for prudently incurred,
  annualized incremental costs of the collections process described in the plan to be recoverable
  through rates set in the base rate case. The Company estimated the cost to implement the plan
  to be \$566,141, reflected in a pro forma adjustment to expenses. See Attachment SPF-11

(St	aff	DR	1-64)	١
ເລເ	$u_{II}$	$\boldsymbol{\nu}_{\boldsymbol{\Lambda}}$	1-04/	٠.

#### Q. Why is Staff reducing the expenses related to the enhanced collection policy?

A. EnergyNorth hired 7 new employees following the test year to implement an emergency response plan designed to meet the response standards established in the merger settlement. Those new employees do more than simply respond to gas odor calls, as only 13% of their time is spent on response duties and 80% of their time is spent on metering-oriented services.

#### See Attachment SPF-12 (DR Tech 1-7).

The availability of these additional employees to perform the metering services and other duties described in the enhanced collection plan does not appear to have been taken into account. The enhanced plan is designed to improve test year collection activities, which do not reflect the work being performed by these new employees, although the annualized cost of the new employees (\$1,154,907) has been included elsewhere in the revenue requirement calculated by the Company. It is unclear whether the productive use of these new employees on collection-related activities is enough to achieve the goals of the enhanced collection plan without further costs, but it is reasonable to assume these additional employees can, and may already be, performing a good deal of that work.

In addition, a substantial amount of the enhanced collection policy costs are one time and/or capital expenses which should not be included in the revenue requirement. See Attachment SPF-13 (Staff DR 2-26 & Tech 1-6).

Staff has removed one half of the proposed enhanced collections policy expense to reflect collection activities being performed by the new employees and to eliminate non-recurring and capital costs included in the expense.

#### Q. What is the amount of the reduction to the enhanced collection policy cost?

- 1 **A.** \$283,071 (\$566,141 x 50%).
- 2 Q. What is the amount of the pension and OPEB expense and depreciation expense reduction
- 3 as recommended by Mr. Cunningham?
- 4 **A.** \$336,646.

6

22

23

#### **Proposed Tariff Changes**

- 7 Q. Does Staff support the proposed increase in the returned check fee?
- 8 A. Yes. Increasing the returned check fee from \$5 to \$15 better reflects the Company's cost to process a returned check and appropriately charges the customers responsible for the cost.
- 10 Q. Does Staff support the proposed change in the penalty for unauthorized usage?
- Yes. EnergyNorth's tariff p. 51, "Supply & Capacity Shortage Allocation Policy" contains a 11 A. penalty clause that allows the Company to charge \$1.50 above the regular rates if a customer 12 takes more than its allocated volumes. The current penalty of \$1.50 is outdated, as it does not 13 reflect the increased cost and volatility of natural gas prices. The proposed penalty, five times 14 the daily index (the mid-point of a range of natural gas prices as published by Gas Daily) is 15 the same penalty imposed by the Tennessee Gas Pipeline (TGP) on its customers for 16 unauthorized usage. TGP is EnergyNorth's primary pipeline supplier and an EnergyNorth 17 18 customer exceeding allocated volumes could cause EnergyNorth to exceed its allocation on TGP. The proposed penalty reflects the industry standard, allows EnergyNorth to fully 19 recover penalty costs from the customer(s) responsible the cost and uses an index that will 20 reflect natural gas prices at the time of the unauthorized taking. 21
  - Q. Does Staff have any concerns regarding the elimination of 280 day and interruptible sales service?

- Yes. Customers migrating from 280 day and interruptible sales service increase peak demand 1 Α. requirements and these customers are relieved of the necessity of maintaining alternative fuel 2 capability. This has a twofold impact: 1) EnergyNorth may be forced to incur additional costs 3 to reinforce its distribution system and/or acquire additional peaking capacity, such as 4 entering a 20 year contract with TGP for additional capacity at a cost of over \$4 million per 5 year and 2) curtailment plans may have to be modified as the ability to switch those customers 6 to an alternative energy supply in a curtailment situation may no longer exist. The issue of 7 whether 280 day and interruptible sales service should be eliminated would be more 8 appropriately addressed in EnergyNorth's next IRP filing, where demand responses are 9 weighed against the cost of additional peaking supplies and curtailment costs. 10
- Q. Does Staff support the elimination of the 280 day and interruptible transportation service agreements as attachments to the tariff?
- 13 A. Staff recommends approval, as the agreements are duplicative of the provisions of the tariff.
- 14 Q. Why did EnergyNorth propose changing the line extension policy?

16

17

18

19

20

21

22

A. Ms. Leary testified that the proposal is significantly simplifies the existing policy, as the current policy requires revisiting each job for which a contribution is required after 12 months to determine if actual costs and margins differ from those used to determine the contribution and revisit each of those jobs any time a new customer is added to the main extension to determine if the original customer is entitled to a refund. Ms. Leary also states that in many cases the particular circumstances of a job may not justify the free installation of the initial 80-feet of service line. She adds that applying a discounted cash flow (DCF)2 methodology to all requests for service will ensure that the investment is not being subsidized by other

<sup>2</sup> Discounted cash flow analysis compares the revenue and cost streams on a net present value basis using a chosen

- customers and that it is comparable to other investment opportunities available to the Company.
- 3 Q. Does Staff support the proposed changes to the service and main extension policy?
- A. No. While the policy may simplify the Company's evaluation of line extension requests, it is a far more complicated policy. Also, the proposed policy is more variable and restrictive than the existing policy, and is inherently unfair.
- 7 Q. How it the proposed extension policy more variable?
- A. The Company would determine the rate of return it would require to provide service to new customers, even for those customers on existing mains, and that rate of return could be changed at any time at the Company's discretion.
- 11 Q. How is the proposed extension policy more restrictive?
- 12 **A.** Currently, potential customers within 100 feet of an existing main (meter located within 80 feet of the property line) are provided service without any connection charge. The proposed policy would eliminate that provision and all new customers would be subject to the revenue test and, potentially, a contribution requirement.
- 16 Q. How is the proposed policy more complicated?
- Under the existing extension policy, if four years of revenue (customer and delivery charges)
  related to the requested extension exceed the construction cost, no customer contribution is
  required. On the other hand, if capital costs exceed four years of revenues, the customer
  requesting the extension must make up the difference before EnergyNorth will begin
  construction.
  - The proposed policy uses a DCF methodology allows the Company to determine the

discount rate and includes much more than just construction costs in its cost stream. Costs included in the Company's DCF model, some of which may not be appropriate for use in evaluating the investment decision, are depreciation, deferred taxes, property taxes, income taxes, O&M, bad debt, insurance and marketing.

#### Q. How is the proposed policy unfair?

A.

A.

It is unfair in several respects. First, a customer who is expected to provide a rate of return that equals or exceeds what the Company has determined to be a fair and reasonable return could be denied service if that return does not satisfy the internal rate of return the Company is seeking. Second, actual revenues and costs could be different from those used to determine a required contribution and there would be no reconciliation and contribution adjustment under the proposed policy. Third, a customer who partially funds a line extension would not be reimbursed from new customers connecting to that extension. Not only would the funding customer not be reimbursed for his contribution based on the increased revenue the line would be generating, but also the new customer would be free riders, not having to contribute to the cost of the line extension.

#### Q. Does Staff have any other concerns with the proposed extension policy?

Yes. Staff is concerned with comments filed by a residential customer who requested service and was told that the Company is not interested in extending its pipeline anywhere in New Hampshire at this time. *See Attachment SPF-14*. That statement would be consistent with EnergyNorth's shift in priorities from investing in growth to non-growth projects as reflected in EnergyNorth's historical capital expenditures for the years 2001 through 2007, which show a steady shift from growth to non-growth projects, with investments in growth projects declining steadily from 67% in 2001 to 30% in 2007. *See Attachment SPF-15 (DR Tech 1-*

1). That statement is also consistent with the Company's goal set forth in EnergyNorth's (now National Grid NH's) Capital Approval Policy, which states on p.1:

"The overall goal of the process is to optimize investment decisions that support KeySpan's strategic direction and contribute to increased shareholder value. To accomplish this object, the policy establishes authorized levels required to initiate an investment and defines a standard project evaluation methodology that must be followed to ensure that investments across the organization are reviewed on a consistent basis." See Attachment SPF-16 (DR Tech 2-18).

Staff is concerned that National Grid NH would prefer to invest other jurisdictions where a higher rate of return could be achieved and may limit investments in New Hampshire regardless of whether or not EnergyNorth investments are able earn a fair and reasonable return as determined by the Commission, as the contribution required from New Hampshire to achieve the desired return could be prohibitive. Staff is also concerned that EnergyNorth may be evaluating projects based on company-wide corporate standards, rather than pursuant to tariff.

#### 17 Q, Is the Company achieving its allowed rate of return on main extensions?

- A. Close to it. Using the Company's proposed DCF methodology adjusted to more accurately reflect revenues and expense over the life of the investment to determine a rate of return on 2007 line extensions for both residential and non-residential customers, the combined return is approximately 10.38%. See Attachment SPF-17 (DR Tech 2-20).
- Q, What is Staff's recommendation regarding the line extension policy?
- At the conclusion of the rate case a docket should be opened to address whether the current policy should be modified, and if so, how. Staff also intends to audit EnergyNorth's execution of the current line extension policy to ensure the Company is evaluating service requests pursuant to the tariff, rather than company-wide corporate standards.

#### Pension and OPEB Reconciliation Mechanism

- 2 Q. Please describe the Company's proposed Pension/OPEB reconciliation mechanism.
- 3 A. EnergyNorth is requesting that the Commission authorize specific deferral accounting
- 4 treatment, a reconciling mechanism, and the collection of deferred pension and OPEB
- 5 expenses through the Company's local distribution adjustment charge (LDAC). Under the
- proposal, the test year amount would be included in base rates, subject to a reconciling
- 7 mechanism included in the LDAC. See O'Shaughnessy direct testimony, p.15.
- 8 Q. What is the rationale for implementation of a pension/OPEB reconciling mechanism?
- 9 A. Mr. Stavropoulos testified (p. 14):

"Similar to the commodity cost of gas, the calculation of pension and OPEB contribution and expense under the rules of the Financial Accounting Standards Board produces a highly volatile result from year to year which is essentially outside the control of the Company. The company's proposed reconciliation mechanism will allow the Company to recover its pension costs incurred in providing service to customers, and benefit customers by ensuring that an inappropriately high level of pension and OPEB expense is not locked into base rates."

16 17 18

10

11

12

13 14

15

- Q. What is Staff's recommendation regarding the proposed mechanism?
- 19 A. The pension/OPEB reconciliation mechanism should not be approved. The Commission
- should continue its policy of treating pension and OPEB expense the same as all other
- expenses included in EnergyNorth's cost of service used in setting delivery rates. It is a long
- standing Commission policy applied to all other New Hampshire utilities. Staff's view of the
- mechanism proposed by EnergyNorth is consistent with its position in Unitil Energy Systems'
- last base rate case, DE 05-178. See pre-filed direct testimony of Steve Mullen dated June 9,
- 25 2006, incorporated by reference herein.
- Q. Are the pension and OPEB costs similar to the commodity cost of gas?
- 27 A. Pension and OPEB costs are insignificant when compared to gas costs. Thus test year gas

costs total over \$135 million compared to test year pension and OPEB expense of less than \$3 million. A slight change in gas costs will have a significant impact on rates and justifies a reconciling Cost of Gas mechanism, whereas the same cannot be said of annual pension and OPEB costs.

#### Q. Are Pension and OPEB costs volatile?

1

2

3

4

5

21

- On a year to year basis, possibly, but a review of the annual EnergyNorth pension and OPEB expenses provided by the Company in response to tech response 1-31 reveals that the test year pension and OPEB expense is only 12% from the average expense for the prior five years.

  See Attachment SPF-18. Although five years is not a very long time horizon, the results indicate that pension and OPEB expenses are less volatile than indicated by simply looking at year to year changes.
- 12 Q. Are pension and OPEB expense outside the Company's control?
- Yes and no. There are large economic forces beyond the company's control, such as equity 13 A. markets, tax law changes and changes in financial accounting standards which a utility is 14 required to implement, but the Company does retain a certain amount of control regarding he 15 level of pension expense to be recognized and cash contributions to be made. Actuarial 16 studies on behalf of the Company provided by outside consultants are used in determining 17 pension expense and in conducting the valuation the actuary relies on personnel, plan design 18 and asset information supplied by the Company. In addition, the plan's design and projected 19 20 salary increases are factors clearly within the Company's control.
  - Q. How might implementing such a mechanism impact the Company's allowed return on equity?
- A. Implementing the mechanism would enable the Company to more easily achieve its allowed

- return on equity, as it would eliminate the risk of not being able to fully recover pension and
  OPEB expenses.
- Q. Do you have any other concerns regarding potential future implications if the mechanism is approved?
- There is the concern that approving the mechanism will encourage requests for a similar
  mechanism on other expenses a utility may deem "volatile" or "out of its control." Approving
  the proposed mechanism could well put the Commission in the position of having to address
  any number of such proposals.
- 9 Q. Does that conclude your testimony?
- 10 A. Yes.

#### ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH Revenue Requirement

	Reference	Pro Forma
Rate Base Proposed	SPF-2	140,913,605
Rate of Return	SPF-3	8.02%
Income Required		11,294,225
Adjusted Net Operating Income	SPF-4	10,302,185
Deficiency		992,040
Tax Effect	_	1.6814
Revenue Deficiency	=	1,667,996
Percent Increase - Base Revenues		
Revenue Deficiency Test Year Base Revenues	EN 2-2 p. 1 (margin)	1,667,996 41,180,957
Percent Increase	=	4.05%
Percent Increase - Total Revenues		
Revenue Deficiency		1,667,996
Test Year Base Revenues	EN 2-2 p. 1 (revenue)	176,520,190
Percent Increase	_	0.94%

	EnergyNorth Proposed As Filed	EnergyNorth Proposed As Updated (1)	Staff Proforma Adjustments	Staff Recommended
Operating Revenues	180,859,301	180,891,373	-	180,891,373
Operation & Maintenance Expenses	159,649,786	159,628,012		157,556,632
Staff Adjustments Advertising & Promotional Health & Medical Financing & Thermal Billing Bad Debt Enhanced Collection Policy Pension & OPEB (Cunningham 10/31/08)			(778,317) (81,669) (114,226) (477,451) (283,071) (336,646)	
Depreciation Amortization & Cost of Removal	7,770,701	7,785,504	(2,194,792)	5,590,712
Taxes Other Than Income Taxes	3,812,960	3,805,181		3,805,181
Total Operating Revenue Deductions	171,233,447	171,218,697	(4,266,172)	166,952,525
Operating Income Before Federal Income Taxes	9,625,854	9,672,676	4,266,172	13,938,848
State Income Taxes	378,300	377,462	385,317	762,779
Federal Income Taxes	1,425,300	1,422,145	1,451,738	2,873,883
Total Income Taxes	1,803,600	1,799,607	1,837,056	3,636,663
Operating Income After Federal & State Income 1	7,822,254	7,873,069	2,429,116	10,302,185

<sup>(1)</sup> Update schedules provided Staff & OCA but not formally filed as of 10/31/08, see Attachment SPF-

## ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH Bad Debt Expense

#### Calculation of Bad Debt Expense for Delivery Rates

Test Year Delivery Revenues (EN 2-2 p. 1 Pro Forma Margin)	47,745,070
EnergyNorth Bad Debt Percentage Staff Bad Debt Percentage	2.54% 1.54%
Staff Bad Boot Forcentage	-1.00%
Bad Debt Adjustment for Delivery Rates	(477,451)

## ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH State & Federal Income Tax Computation - Utility Operations

#### Calculation of State Income Tax

Operating Income Before Income Taxes & Interest Charges	13,938,848
Interest Deduction (See note below)	4,964,973
Operating Income Before Taxes (p. 1)	8,973,875
State Income Tax (tax rate 8.5%)	762,779
Income Subject to Federal Income Tax (income less state tax)	8,211,095
Federal Income Tax (tax rate 35%)	2,873,883
Total Federal & State Taxes	3,636,663
Note: Calculation of Interest Deduciton	
Rate Base Proposed	141,452,227
Long Term Debt	3.51%
Interest Deduction	4,964,973

140,913,605

#### ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH Average Rate Base

	Total Gas Plant In Service	Noninterest Bearing CWIP (2)	Customer Deposits	Interest on Customer Deposits	Reserve for Depreciation (1)	(Total) Net Utility Plant Service
June 2006	256,048,074		(178,864)	(78,809)	(86,895,808)	168,894,593
July	258,529,222	_	(178,864)	(78,809)	(87,389,034)	170,882,515
August	257,400,623	_	(178,864)	(78,809)	(87,957,995)	169,184,955
September	259,664,652	-	(167,269)	(80,114)	(88,427,685)	170,989,584
October	260,247,367	-	(167,269)	(80,114)	(89,000,314)	170,999,669
November	261,925,597	-	(167,269)	(80,114)	(89,286,828)	172,391,385
December	263,405,591	-	(166,240)	(27,125)	(89,611,827)	173,600,399
January	266,516,831	-	(166,240)	(27,125)	(90,109,657)	176,213,810
February	266,808,496	_	(166,240)	(27,125)	(90,748,792)	175,866,339
March	266,789,959	-	(199,168)	(28,571)	(91,360,626)	175,201,594
April	266,554,819	-	(199,168)	(28,571)	(91,868,166)	174,458,914
May	266,542,565	-	(199,168)	(28,571)	(92,438,371)	173,876,455
June 2007	270,444,136	-	(236,932)	(30,960)	(92,523,376)	177,652,868
Subtotal	3,420,877,933	-	(2,371,555)	(674,817)	(1,167,618,479)	2,250,213,082
Less:						
1/2 June 06	128,024,037	-	(89,432)	(39,405)	(43,447,904)	84,447,297
1/2 June 07	135,222,068		(118,466)	(15,480)	(46,261,688)	88,826,434
	263,246,105	-	(207,898)	(54,885)	(89,709,592)	173,273,731
Total	3,157,631,827		(2,163,657)	(619,933)	(1,077,908,887)	2,076,939,351
Average (Total ÷ 12)	263,135,986		(180,305)	(51,661)	(89,825,741)	173,078,279
		Property Base Adju	ustments (p. 2)			(38,291,271)
		Adjusted Property	Base			134,787,008
		Working Capital (				6,144,829
			• /	Updated EN Schedule	s)	(18,232)
		raumas Circle 110	Jane Tank Kemovar (	opulied Dividence	3)	(10,232)

Average Rate Base

 <sup>(1)</sup> Includes:
 (a) Includes Asset Retirement Obligation in Account 254 - other deferred credits - averaging (\$782) thousand.
 (b) Includes Contributions in aid of construction - averaging (\$387) thousand.

<sup>(2)</sup> EnergyNorth non-interest bearing CWIP average rate base of \$4,510,701 removed

## ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH Summary of Property Base Adjustments

	Amount
Average Balance of:	
Unamortized Deferred Assets - Other (p. 3)	2,755,876
Deferred Income Taxes (p. 4)	(41,047,147)
Net Property Base Adjustment	(38,291,271)

#### ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH Unamortized Deferred Assets - Other

		Gas jobs in		
	FAS-109	Progress (1)	Other	Total
June 2006	2,745,991	-	8,063	2,754,054
July	2,745,991	-	11,678	2,757,669
August	2,745,991	-	11,735	2,757,726
September	2,745,991	-	11,790	2,757,781
October	2,745,991	-	11,848	2,757,839
November	2,745,991	-	11,876	2,757,867
December	2,745,991	-	8,404	2,754,395
January	2,745,991	-	8,463	2,754,454
February	2,745,991	-	8,517	2,754,508
March	2,745,991	-	8,576	2,754,567
April	2,745,991	-	8,634	2,754,625
May	2,745,991	-	8,695	2,754,686
June 2007	2,745,991	-	8,754	2,754,745
Subtotal	35,697,883	-	127,032	35,824,915
Less:				
1/2 June 06	1,372,996	-	4,032	1,377,027
1/2 June 07	1,372,996	-	4,377	1,377,372
	2,745,991		8,409	2,754,400
Total	32,951,892	-	118,624	33,070,516
				-
Average (Total ÷ 12)	2,745,991		9,885	2,755,876

<sup>(1)</sup> EnergyNorth Gas Jobs in Progress average of \$1,414,912 removed.

#### ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH Deferred Income Taxes

			New Hampshire	
		Federal (1)	State (2)	Total
June 2006	-	(33,054,827)	(7,716,648)	(40,771,474)
July		(33,201,648)	(7,755,616)	(40,957,265)
August		(33,102,172)	(7,729,214)	(40,831,386)
September		(32,956,219)	(7,698,599)	(40,654,819)
October		(32,526,622)	(7,584,577)	(40,111,199)
November		(33,466,616)	(7,621,295)	(41,087,911)
December		(34,396,302)	(7,055,822)	(41,452,124)
January		(34,157,083)	(6,992,329)	(41,149,413)
February		(34,925,357)	(7,196,242)	(42,121,599)
March		(33,872,741)	(6,924,983)	(40,797,724)
April		(34,484,713)	(7,087,412)	(41,572,125)
May		(34,761,122)	(7,160,775)	(41,921,898)
June 2007		(32,494,176)	(6,550,964)	(39,045,141)
	Subtotal	(437,399,599)	(95,074,478)	(532,474,077)
Less:				
1/2 June 06		(16,527,413)	(3,858,324)	(20,385,737)
1/2 June 07		(16,247,088)	(3,275,482)	(19,522,570)
	-	(32,774,502)	(7,133,806)	
Total	_	(404,625,097)	(87,940,672)	(492,565,769)
Average (Total ÷ 12)		(33,718,758)	(7,328,389)	(41,047,147)

<sup>(1)</sup> Includes deferred investment tax credit averaging (\$612) thousand.

<sup>(2)</sup> Includes rate case deferred of (\$2.789) million.

### Attachment SPF-3

p. 5 of 6

#### ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH Working Capital

	Amount
Prepayments	155,604
Cash Working Capital (1)	5,989,225
Total Working Capital	6,144,829

#### Attachment SPF-3

p. 6 of 6

#### ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH Cash Working Capital Allowance

	EnergyNorth (Gobles)	EnergyNorth (McCluskey)
Delivery - Cash Working Capital Allowance	4,127,997	1,547,221
Supply - Cash Working Capital Allowance	4,442,004	3,713,586
Total Cash Working Capital Allowance	8,570,001	5,260,807
Staff Working Capital Adjustment for Delivery Rates	(2,580,776)	
Adjusted Working Capital Allowance	5,989,225	

#### ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH Overall Rate of Return For Ratemaking Purposes

Item	Component Ratio (%)	Component Cost Rate(%)	Weighted Average Cost Rate (%)
Common Stock <sup>1</sup>	50%	9.01%	4.51%
Long Term Debt	50%	7.02%	3.51%
Short Term Debt <sup>2</sup>			
Total	100%		8.02%

<sup>1)</sup> Debt to equity ratio of 50:50 approve in merger docket DG 06-107, Order 24,777 (July 12, 2007)

<sup>2) 7.02%</sup> weighted cost of debt approved in financing docket DG 06-122, Order 24,824 (February 29, 2008)

Reconciliatory Explanations (Rate Filing F1 Report)	Excludes that portion of construction work in progress (cwip) identi
February 2008 Rate Filing Schedule 3 June 30, 2007 (1)	
Form F1 Report Quarter Ended June 30, 2007 (1)	
Rate Base Components	

			Excludes that portion of construction work in progress (cwip) identified as
NI Più I	\$ 279,267,361	267,545,686	the bases of accrued allowance for funds used during construction.
Materials & Supplies	5,379,596	•	All fuel related and assumed not part of base delivery rates. (A) imited to now that CEM evinences: (i) reflected effectively last
Cash Working Capital Requirement	2,288,886	6,837,149	(4 Cilings to har her conficted in the conficted direction of the conficted directions for non-fuel and fuel.
Prepayments	4,568,069	155,604	Excludes fuel related.
			Excluded as shareholder bear the cost. Inclusion here as a reduction would
Customer Deposits	(236,832)		provide rate payers with two cost reductions.
			Excluded as shareholder bares cost, Inclusion here as a reduction would
Accrued Interest on Customer Deposits	(30,960)	•	provide rate payers with two cost reductions.
Depreciation Reserve	(91,758,737)	(89,825,741)	Includes liability accounts 230 (related to asset retirement obligations), 254 (related to removal costs), and 271 (contributions in aid of construction).
			Includes investment tax credits but excludes certain deferrals not related to
Deferred Income Taxes	(34,274,135)	[41,047,147]	the rate base.
Reimbursable Contributions	19,477	•	Included as an offset to Depreciation Reserve.
Pension & Benefit Reserve	(1,065,701)		These were assumed to be non-eash reserve accounting balances.
			Related to unrecovered (i) FAS 109 - state income taxes; (ii) rate case costs;
Deferred Assets		2,755,876	and (iii) FAS 106 - opeb and pension costs.
			These costs are included for recevery of financial carrying charges since
Gas jobs in progress		1,414,912	these costs had not accrued a non-cash carrying charge.
Total Rate Base Components	164,169,026	148 037,338	

(1) Ft report utilizes month and June 30 balances whereas rate filing utilizes a 13 point averaging both excluding cash working capital requirement.

#### ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NII DG 08-009

#### National Grid NH's Responses to Staff Set 4

Date Reguest Received: October 7, 2008

Request No. Siell 4-6

Date of Response: October 17, 2008

Witness: John O'Shanghnessy

REQUEST: Ref. Staff DR 3-71 Attachment: please explain how 'customer deposits' and 'accruent interest on customer deposits' are costs borne by the shareholder and how removing it from rate base in the filing provides ratepayers with two cost reductions.

RESPONSE: Customer deposits can interest, which is paid by the Company but has not been included in operating expenses for purposes of determining the Company's revenue requirement. Because the interest expense is not included as an operating expense, temoving customer deposits and accured interest on customer deposits from rate base without including an adjustment for the interest expense associated with these items in Operation and Maintenance expense would have the effect of providing a double benefit to recepayors.

#### ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NH DG 08-009

#### National Grid NIT's Response to STAFF Set 1

Date Request Received: May 1, 2008

Request No. Staff 1-24

Date of Response: May 21, 2008 Witness: John O Shaughnessy

REQUEST:

Exhibit EN 2-4 includes non-interest bearing CWIP in rate base. In light of NTPs anti-CWIP statute, please explain how recovery of CWIP is eliminated from the proposed revenue requirement.

RESPONSE:

The plant that is included in the "non-interest bearing CWIP" account is purchased equipment or construction projects of short duration and low cost that did not accrue AFUDO while the project was under construction. All of the plant in that account during the test year is now in service, and therefore inclusion of this amount in rates is consistent with the anti-CWIP statute.

#### ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NU DG 08-009

#### National Grid NH's Responses to Staff Set 4

Onte Request Received: October 7, 2008

Request No. Sizil 4-6

Date of Response: October 17, 2008

Witness: John O'Shanghnessy

REQUEST: Ref. Staff DR 3-71 Attrachment: please explain how 'customer deposits' and 'accrued interest on customer deposits' are costs borne by the shareholder and how temoving it from rate base in the filing provides ratepayers with two cost reductions.

RESPONSE: Customer deposits earn interest, which is paid by the Company but has not been included in operating expenses for purposes of determining the Company's revenue requirement. Because the interest expense is not included as an operating expense, temoving customer deposits and accured interest on customer deposits from rate base without including an adjustment for the interest expense associated with these items in Operation and Maintenance expense would have the effect of providing a double benefit to rerepayers.

#### ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NII DG 08-009

#### National Grid NH's Responses to Staff Sct 4

Date Request Received: October 7, 2008

Date of Response: October 17, 2008

Request No. Stalf 4-7

Witness: John O'Shaughnessy

REQUEST: Ref. Staff DR 3-71 Attachment; how does 'gas jobs in progress' differ from noninterest bearing Construction Work in Progress? Is it the same rationale for including 'gas jobs in progress' and 'non-interest bearing CWIP' in rate base?

RESPONSE: The rationale for including gas lobs in progress in rate base is similar but not identical to the rationale for including non-interest bearing CWIF. In both cases, the capital investment at issue relates to projects that are now in service (i.e., used and useful), and therefore the investment is properly included in rate base. Gas jobs in progress are accounted for in their own account because a reimbursement from a governmental agency remained outstanding at the time the entry was booked.  $\Lambda$ project that was banked as a gas job in progress could be one that was already in service when it was booked, but the outstanding reinflursement amount nevertheless caused the Company to book the project as being "in progress".



(m)

Rop. 8, "Sales-Advertising Exp." "Incontive Programs – Other" and "Incentive Programs – Free Boiler." Please explain these incentive programs and whether they increased the Company's revenue requirement by \$685,317.

Response:

Incentive Programs — Other included in Sales Advertising Expense consist primarily of Heating Conversion, Commercial/Industrial Free Equipment and Cash Rebate programs designed to increase oil to natural gas conversions. Incentive Programs — Free Boilers is another program designed to increase conversions to natural gas by offering to provide free gas boiler equipment. Those O&M expenses are included in the Company's revenue requirement.

#### BNBRGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NII DG 08-009

#### TECH SESSION

Date Request Received: July 25, 2008

Request Vo. Tech i-39

Date of Response: September 4, 2008

Witness: John O'Shaughnessy

REQUEST: Reference OCA 2-15(m) and (n). Please explain the rationale for including these expenses in the revenue requirement in light of the Puc ch.

510 rules.

RESPONSE: Pue 510.05 (a)(7) allows the Company to include in its revenue requirement promotional activities which are consistent with the utility's approved integrated resource plan ("TRP"). Implicit in the Company's growth forecast contained in its IRP is an assumed level of promotional advertising designed to drive growth in various customer markets. Therefore, such promotional advertising activities are consistent with the Company's IRP and properly recoverable in rates.

# ATTACHMENT SPF-10 (OCA DR 1-13) p. 1 of 2

#### ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NH DG 08-009

#### National Grid NITs Response to OCA - Set 1

Date Request Received: May 1, 2008.

Request No. OCA 1-13

Date of Response: May 21, 2008 Witness: John O Shaughnessy

REQUEST:

Re Exhibit EN 2-2-2, p4-1, and Workpaper-Exhibit EN 2-2-2, page CO149. The proforma adjustment for Health and Hospitalization is based on the period January 1, 2008 through December 31, 2008. Please calculate the proforma adjustment for the 12 months following the test year, July 1, 2007 through June 30, 2008 and provide workpapers.

RESPONSE

The pto forma adjustment for the 12 months following the rest year would be \$124,447. See attached workpapers.

		Mex		T. C.	22122 22222 23222 23	41		132 132 145			HIRM		*******				
	M-1-1 M-1-	N.S.	2244 2014 2014 2014	- 4			***	×		700	1 5 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		- Parage				
		æ		1	1,10%			* * *	* <b>:</b>	9879	ं		1				
4		N.		}: <u>}</u>		<b>#</b> !		123	55	150			1000				
With the state of		7	45.1		(i, 7)		11 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	L	×			Property.				
1		Á	(1) (1) (1)	7 7	And a	Ľ.		M CAR	¥ (2)								
, and and	78.15%	Ā		T. T	<b>M</b>	-	i i	12.3	T. Car		7.00		-				
	X. 171X.			Yelg	* ** **		1						4.61				
		77		X				讀	1		5						
		170	2221 2221 2221			: W	Secretarion and the second	;]	•	2×3	??		1	į			
		!			187.24 187.24	982 (1) 								andeciria (n			
	-	ž.		A Kerr			· · ·			A A Y	MAN.			A: W			
		, in 19-1	<b>\$(1)</b>	. 6.0			* No.	il i	)ř	, ax	244		-	Have sed			
		171	Sprij	: 5	4	1 1		l t	1 2		Color						
	•	M	12111	110	5555 5555 5555 5555 5555 5555 5555 5555 5555	1	11 55	5×5 5×8 3×8	12	15.72	3,14.6	13	******				
	Let. 4"3"	;			***	2		at loca	100	NATURE OF THE PARTY OF THE PART	- 1 C. 1.	• ;	*				
1		Ā		47	158				- 13		*	1 15	777				
AND THE PROPERTY OF THE PROPER		No. to	3H GG	11	\$2.00 m	333	;		11	÷ .	35	!: :					
1111		, W. A.		::	î.	¥-3	**************************************	7. 15	7	Ÿ	1	1					
		l	३३५६ रकारः∌	136	2547	***		11		466 200				į			į
		1				1		Ì	4.1					1			
						MICONOCONA MARIENTANIA	:		Address of the second		SSOILS Assessment State of the			The second secon	And the second of the second o	Control of the Contro	The figure of the form of the first of the f
			To an	No. 45 Per September 1				Political Control of Section	N. C. C.		CALL TO SERVICE STREET		SINCE SECTIONS			15	10.8 Page . 7 481.

#### ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NH DG 084009

#### National Grid NIT's Response to STAFF Set 1

Date Request Received: May 1, 2008.

Date of Response: May 20, 2008

Wilness: Gary Bennelt

REQUEST:

Request No. Staff 1-64

Please explain the difference in the added collection cost of \$442,458 used in the filing and revised cost of \$644,078. What costs were changed or added. Please identify where those costs are

comained in the filing.

REQUEST:

An error was discovered in Attachment GB-1 page 4 of 5. A multiplier was applied to the wrong cell in Excel (line 3 vs. line 4). Below is the corrected calculation. The affected data points are lines 3 and 4. This reduces the field costs from \$539.053 to \$401.116 and total costs from \$644,078 to \$566,141. The answers to the above cuestions are below the Corrected Field Costs.

	Corrected Field Costs for Visits and Reconnects	
1	Total Incremental Jobs	5,798
2	Incremental Field Collection Employee Labor	\$112,764
3	Incremental Field Collection Employee Labor Burdens	\$115,437
4	Non-Labor Costs	\$74,998
5	Total Incremental Field Collection Costs	\$303,199
ß	Total Turnons	1,398
7	incremental "Reconnect" Field Employee Labor	939,504
8	Incremental "Reconnect" Held Employee Labor Burden	560.914
9	Non-Labor Costs	537,499
10	Total Incremental Field "Reconnect" Custs	\$157,917
11	Total = old Collections Cost	\$461,118
	Contact Center Costs for Accounts Terminated	
12	Call Center Costs	
13	Number of Locks	1,472
14	Galls per Lock	3.0
15	Total Calls	4,418
16	Cost per Call	97.70
17	Sub - Total Call Conter Cost	534,000
	Contact Center Costs for Accounts Noticed but not Terminated	
18	Incremental Visits	5,798
19	Required Increase in Term Notices	11,596
20	Resolution Rate for Term Notices	50%
21	Incremental Accounts Resolved	5,798

ATTACHMENT SPF-11 (Staff DR 1-64) p. 2 of 2

22 23 24 25 28	Calls For Account Resolved Incremental Calls to Resolve Accounts Cost per Call Sub - Total Call Center Cost Total Call Curtor Cost	1.5 5,897 \$7.70 \$66,967 \$100,966
27 28 29	Cost of Sending Incremental Notices Incremental Notices Cost per Notice Total Noticing Cost (Facilities)	11,598 50.35 \$4,059
30	Grand Total Cost	\$56â,141

The difference in the added collection cost of \$442,458 used in the filing and revised cost of \$644,078 (subsequently revised to \$566,141 per above) was due to:

- 1. \$127,00% was primarily due to the calculation of the EUL requirements needed for the physical reconnect (turn on) (lines 7-10 above). The original calculation assumed the number of "reconnects" to be 618 jobs, when in reality the number of subsequent requests for turn on after turn off for non payment is calculated to be 1,398. The difference in the number of jobs is due to fact that of the customers that were turned off for non-payment, a percentage of these customers will request turn on after they pay their bill. There exists another percentage of new customers that request turn on at these premises that was not included in the original calculation (line 6-10 above).
- (\$12,635) due to lower labor rate assumed for FTE for collections (line 2 and 3 above)
- \$9.310 due to higher cost per call from \$6.69/eall to \$7.70/call (line 16 and 24 above).

#### ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NH DCI 08-009

#### TECH SESSION

Date Request Received: July 25, 2008

Date of Response: August 14, 2008

Request No. Tech 1-7

Witness: She Fleck

REQUEST: Please set forth the functions performed by the incremental 6 FTE's hired to enhance performance in response to gas odor calls in accordance with the merger settlement for the most recent six month period, February thiπugh July 2008,

RESPONSE: The workload is shown in the table below. Additional detail is provided in Attachment Tech 1-7.

NH incremental FTE's - We Detail	o-klead	
Category	Total Jobs	FCT
Dig Safe	16	0.35%
Fitting	272	6.01%
Meter Readings	29	0.64%
Meter Oriented Services	3630	80.19%
Ешегденсу	580	12.81%
Crand Total	4527	109.93%

It is important to note that these six individuals were added to ensure that the Company had the capacity to respond to emergencies. Specifically, by adding them to the existing workforce, the Company was able to increase coverage on night and workend shifts. As was discussed during the merger proceedings, while the number of emergencies is relatively low, the additional staffing was needed to achieve the agreed upon response times at all hours. Therefore, during periods when no emergencies are called in, all shift employees are engaged in other productive work that can be interrupted such as meter-oriented work, so that they can be quickly redeployed when an emergency call is received.

# ATTACHMENT SPF-12 (Tech DR 1-7) p. 2 of 2

Dissertation
CCC Set 1.2 March 15
CCC Set 1.2 March 15
CCC Set CCC Than 12 March 15
CCC Set CCC Than 12 March 16
CCC Sease CCC Fek Mai April Mag 34 - 144 - 2019 8 1 17 - C - 4 - C - 19 - - 87 1 - 1 - 1 - 1 - 1 Peter Griente I Service: Vomr Griente I Service: Voter Griente I Service: Voter Griente I Service: 318 346 349 345 317 C44 Ferrow: Mitter Other C4G Km/s Uling han Lost khi G16 Change Meres, Km U17 Change Meres, Heat 245 245 252 018 Change Mean, Par Crig 018 Change Mexic, Other \_ محب <u>ع</u>دي CSC Lock But Chilipton CSC Lock But Chilipton CSC Letters Visitation Common 561 162 (h) 135M ...16.45. ICSN ....6.ask C54 ....6.ask. Paid 81 050 No Ses CCC Verify Patier (rip CSS turn C6 C77 inst-1 Endown Davids C79 Cycle 4 : Endy Alexand 364 062 063 063 063 075 Wester Chemist Services
 Wester Chemist Services
 Water Chemist Services
 Wester Chemist Services
 Wester Chemist Services C78 Cultial: Fraxete i (01) (01) 050 Meintein Kernote Mer Dylac 057 Change Meguteter 000 february Regulation 004 Renova Regulation 005 Other Work in Conj W/ Pep 000 February Regulation 7 2 46 70 55 54 77 77 77 333 646 530 55 579 coc 410 - Mercr Offerted Services, Morr Or ented Services Mercr Or ented Services Mercr Or ented Services Morro Or ented Services Morro Or ented Services Enteropy Display Sefe Enteropy Display Sefe Enteropy offi 15) Value Russell . 450 Glienge News, Clast Rug 12 19 19 1 3 489 Chappe Metal Per Roc 489 Chappe Metal Per Roc 489 Chappe Metal Per Roc 439 Chappe Metal Per Rock 439 Chappe Metal Per Rock Digister (Metal Person 173 Want Shie Drown Cart Hau 16. ----18---4--E. F. Vennt Shit Dawn Ru ge E. F. Vent Shit Down Rim Health C. F. Com Shit Down Xt. Lin Emercency Emercency Emercency 117 118 - 70 ... 12: Count Shall Unweither: Angl. Emercency Fallock Falor up L'11ca: Se ar L'21cac : Serára Emergency Emergency Emergency
Emergency
Financy
Emergency
Emergency
Emergency
Emergency 10 16P F'A Laws - Brown L'4 Law - Broot L'6 Law - Fra | Color | During law App | Dr. Leak Sound By | N/2 Unlock Vol Corn Son Hear <u>i</u> NES Unteck: Non-test Net University and Suppose the 7 012 Cake Sanger 013 Dake Sanger 020 Otto Hilse, Appliance 115 Inc. 05 Emergency
Friendersy
Mager Drienled Services 2 ; -TOR The Touries

Grand Total Common Common Total Common Co Mover Driegled Services

Allashment Tech 1-7 National Grid Not DO 05-009 Page 1 of 1

Summer POTALS (\$250.00) POSTS	
Calculated Services (Appelli)	A. RCT
Dg 8afe 18	0.35%
· fung 272	5.01%
Meter Readings 20	_5,52%
Meter Oriented Services 2000	93.19%
Smarpacoy 520	12.91 %
Gland Total	100,00%

Energians, Work Inspector (Inside Survey) Nation Chlorical Services Major (Changes 107 175 136 85 76 72 579 375 252 442 256 231 379 2.56

50.5

13%

#### FNERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NH DG 08-009

#### National Grid NH's Responses to Statif Set 2

Date Request Received: June 13, 2008

Request No. Staff 2-26

Date of Response: July 11, 2008

Witness: Gary Bennett.

REQUEST: Rell response to Staff .-64. What comprises Non-Labor Costs (lines 4 and 6)? Please describe each component and calculate the percentage total non-lapor cost. How often are non-labor costs calculated? Please provide the applicable monthly Non-Labor Costs for July 2006 through May 2008.

RESPONSE: Non-labor costs are based on a combination of one time costs and recurring / replacement costs. The mm labor costs are not tracked on a morthly basis. Von labor costs are calculated annually as part of the budgeting process. Below represents the detail used in calculating the non-labor costs

Thols for Each Rep	\$ 2,099	6"%
Vehicle Cost and Gasoline & Maintenance	\$ 20,000	53%
Uniforms and Safety Shoes	\$ 600	2%
Personal Protective Equipment	\$ 800	2%
Cell Phones & Miscallaneous Supplies	\$ 2,000	5%
MDT Termina!	\$ 5,000	13%
Flame Ionization Equipment	\$ 5,000	13%
Combustatic Gas Indicato:	\$ 2,000	5%
Total Non Labor Costs per Yech	\$ 37,499	100%

#### ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NH DG 08-009

# TECH SESSION

Date Request Received: July 25, 2008

Date of Response: August 14, 2008

Request No. Tech 3-6

Witness: Gary Bennett

REQUEST: Refer to Staff 2-26 and 2-64. Please identify each of the one-time costs

shown on those responses.

RESPONSE: Non-labor costs are based on a combination of one time costs and

recurring/replacement costs. The non-labor costs are not tracked on a morthly basis. Non-labor costs are calculated annually as part of the budgeting process. Below represents the detail used in calculating the

non-labor costs:

Tools for Each Rep	\$ 2,099	6%	Allocated to	initial allotment of tools then
1	]		O&M (73%) and	recurring miscel aneous supplies
}		1	Capital (27%)	such as rags, batteries, snap, loof
	i			replacement etc.
Vehicle Cost and Gasoline &	\$ 20,000	53%	Allocated to	; Recurring Manthly
Maintenance	ł		Q&M (73%) and	<u> </u>
		l	Capital (27%)	
Uniforms and Safety Shoes	8 600	2%	Allocated to	One time initial uniform and then
		1	O&M (73%) and	Annual Uniform and Safety Stice
<u> </u>		4:41	Capital (27%)	Allotment
Personal Protective Equipment	\$ 8CO	2%	Allocated to	One Time Purchase then monthly
	J		O&M (73%) and	desning fee
C-D Dhan a A Mina N		-á	Capital (27%)	
Cell Phones & Miscellaneous	\$ 2,000	5%	Allocated to	One time cost to purchase phone
Supplies	ł		O&M (73%) and	then monthly fee.
MDT Terminal	ا مستحد ما	22.00	Capital (23%)	· · ·
	\$ 5,000	13%	Capital	One time Purchase
Flame (onization Equipment	\$ 5,000	13%	Capital	One time purchase
Combostble Gas Indicator	\$ 2,000	5%	Capitel	One time Purchase
Total Non Labor Costs per	\$ 37,499	100%		
Tech				

# **Deborah Wegehoft**

2 Juniper Drive Amherst, NH 03031 phone: (603) 672-2833

email: wegehoft@wormstar.com

Debra A. Howland Executive Director and Secretary New Hampshire Public Utilities Commission 21 S. Fruit St, Suite 10 Concord NH 03301

Meredith A. Hatfield Consumer Advocate – NHPUC

July 25, 2008

RE: DG 08-009, ENNI/National Grid - Technical Session

Dear Ms Howland and Ms. Hatfield:

I understand that DG 08-009 technical sessions are for the NHPUC and National Grid to discuss natural gas rate increases.

However, I have a related issue I would like the New Hampshire Public Utilities Commission to consider during this session. I apologize for the late notification.

Bartlett Common is a subdivision adjoining our property in Amherst, NH and they have natural gas. Because Bartlett Common is so close, I decided to look into converting our home at 2 Juniper Drive from fuel oil to natural gas. Why? Natural gas is less than half the cost of fuel oil; it's much cleaner; and no more deliveries or oil tanks.

National Grid (formerly Keyspan) was running a promotion with a \$1500 rebate for new customers converting to natural gas. I went to their website and confirmed that the promotion included Amherst, New Hampshire.

Between May 2, 2008 and June 25, 2008, I contacted National Grid over twenty times and spoke with twelve different people about converting our home at 2 Juniper Drive, Amherst, NH, to natural gas.

In the course of these conversations, National Grid wanted to know how many people on Juniper Drive were interested in converting to natural gas. They would not consider extending the pipeline unless 4 or 5 of my neighbors provided their names, addresses, and phone numbers, confirming their interest in natural gas conversion.

In June, I wrote a letter to my neighbors and included a chart with the current costs of fuel in New Hampshire. There was a great response to my letter. Fourteen of my neighbors provided their names, addresses, and phone numbers so National Grid would estimate the cost of bringing natural gas from Josiah Bartlett Road/Amherst Street to Juniper Drive in Amherst.

A week after I faxed the 14 names/addresses to National Grid, one of their field reps, Rick Pelletier. called me. According to Rick, the pipeline needs to be extended 700 feet to reach our house. National Grid's estimate is \$35,000 just to run the pipeline to 2 Juniper Drive. For the entire road, the estimate is \$250,000 to \$300,000. I think these costs are excessive.



#### ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NH DG 08-009

#### TECH SESSION

Date Request Received: July 25, 2008

Date of Response: August 6, 2008

Request No. Tech 1-1

Witness: Sue Heck

REQUEST: Is the Company able to provide annual capital expenditures from 1993 to

2000 broken out by growth and non-growth? If so, please provide.

RESPONSE: The Company does not have access to this information in its current

financial systems. We are accessing archived records and will attempt to use these records to obtain the requested information. This process will take additional time to complete; a supplemental response will be

submitted if the information is obtained.

The detailed breakdown of capital expenditures for the period 2001 to 2007 is shown in the table below:

		His	torical Capital 2001-2				
	2001	2002	2003	2004	2005	2006	2007
Yotal Growth	\$11,809,961	19.437,334	_511,505,318	\$6,845,680	\$6,120,314	65,035,482	<b>3</b> 5,736,716
Total Non- Grawth	S5,838,146	<b>\$</b> 7,414.362	\$9,665,795	\$7,952,0 <del>6</del> 7	\$7,566,907	810,207,738	\$17,353,068
Total Growth and Non- Growth Capital	\$17.648.107	S16,851,696	S21 171 113	\$14.800,747	\$13,687.221	\$15,243,220	\$19,089,784

#### ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GREDINH DG 68-009

National Grid NH's Responses to Data Requests from Technical Session #2

Date Request Received: October 6, 2008

Date of Response: October 23, 2008

Request No. Tech 2-18

Witness: Susan Fleck

REQUEST: Please provide the Company's capital policy upon which you relied in

generating your response to Stall 1-41.

SESPONSE: The Company relied upon the attached KeySpan policy in generating its

response to Staff 1-41. As discussed by Mr. DeRosa curing the October 3,

2008 technical session, the general policy remains the same under

National Grid, however, the internal authorizations required to approve a

project are different given the new organization.

# ATTACHMENT SPF-16 (Tech DR 2-18)

National Grid Nf1 DG 06-009 Attachment Peta 2-38 28 Pages



Capital Approval Policy

Proprietary and Confidential

Effective January 1, 2003 Options December 10, 2002

ATTACHMENT SPF-16 (Tech DR 2-18)

# Table of Contents:

# Policy:

EXTCUTIVE SUMMARY:	1
RESTURCE ALLOCATION PROCESS.	
CAPITAL ALLOCATION PICLUSOPEY:	
BUSINESS UNIT FINANCIAL PERFORMANCE	
PROJECT SPONSOR:	
PROJECT REVIEW AND ATTHORIZATION PROCESS:	
CAPTIAL APPROVAL AUTHORIZATION LEVELS:	
CAPITAL APPROVAL PACKAGE OVERVIEW;	
PROPER MONITORING:	
Posy Promitt Review Profess	
RESCURÇE ÁLLOCATION/ CAPITAL APPROMAL PROCESS SUMMANY:	₹
Appendices:	
N <b>Fr</b>	
DEFINITION OF TERMS	
APPENDIX A: FINANCIAL REPORTING SEGMENTS.	1 ≟
APPENDIX B: HUROLE RATES BY OPERATING SEGMENT	12
APPENDIX C: SUMMARY FINANCIAL STATISTICS	13
Capital Approval Package:	
Capital Approval Package:	
APPENDIX D: CAPITAL APPROVAL PACKAGE	14
Financial Methodology and Model Design	
Data Requirements and Assumptions	
SECTION 1 - DESCRIBE SUMMARY AND APPROVAL	10
SECTION 2 - TRANSACTION JUSTIFICATION.	30
SPOTION 3 - RISK ASSESSMENT	
ASTACHMENT A FENANCIAL MODEL OVERVIEW.	21 77
ATTACHMENT B - FINANCIAL MODEL REVIEW CHECKLISH	44 22
ATTACHMENT C - FINANCIAL MODIT	
ACTACHMENT D - DUEDINGSNUE CABOKUST FOR ACQUISITIONS AND DIVESTSTURES	20
·	

KEYS ALS

## Esecutive Summary:

The purpose of this policy is to establish the framework for defining, ablocating, approving and monitoring capital investments by the business write of KrySouri Corporation.

emperty followed, the pulicy should ensure that capital resources are optimally approved to:

- 1. Support the Company's short and long term objectives and business strategies
- 2. Maintain the existing infrastructure of each business
- 5 Assume safery and reliability of the systems.
- 4. Provide funding for mandatory programs

The overall goal of the process is to optimize investment decisions that support KeySpan's strategic direction and contribute to increased shareholder value.

To accomplish this objective, the policy establishes authorization levels required to initiate an investment and defines a standard project evaluation motioodology that must be followed to ensure that investments across the organization are reviewed on a consistent basis.

This policy applies to all wholly owned subsidiaries of the firm including KeySpac Services Inc. and KeySpac Energy Development Corporation.

ECT PAN

#### Resource Allocation Process:

The "Annual Resource Allocation Process" is one component of the "Enterprise, Wide Planning Process," The Annual Resource Allocation Process establishes the operating and capits, investment budgets for each business of the component on the picenting housen (rypically five years). The process, executed correctly, assures that approved budgets optimally contribute to the achievement of the strategic and financial targets set for each business.

The Annual Resource Allocation Process should be the primary process to review investments for the corporation. Herdie Roses for each mutor business segments and standardize financial model assumptions will be distributed during this process. Investments that arise during the year will be evaluated as part of the Incremental Resource Allocation Process that occurs on a quarterly basis.

#### Capital Allocation Philosophy:

The allocation of capital will be undertaken or two lavels

- 1. On a macro level, capital will be allocated among the business units to provide them with the resources necessary to support KeySpan's approved sinkegic plans and financial targets. The financial performance of each business relative to expensed performance will be taken into consideration. Safety, system reliability, and mandated requirements are critical factors that must be considered.
- On a micro leve, projects within each business will be evaluated using standardized Empiral
  analysis methods and assauniprious said produced bused in ability so enhance contribution to
  shareholder value.

#### Business Unit Financial Performance:

The Business Unit Financial Performance Review is the highest level of review in the Cupital Allocation Process.

A primary focus of the business units is the continuous improvement of financial performance over time. To support this objective, each business should employ the rigerous capital investment review and prioritization process described borein within their area. It is critical that each area employs the standard project evaluation methodology and approved assumptions to assure investments excess the organization are reviewed on a consistent basis. The focus should be on enhancing the value of each business unit over the long term.

Each business unit (see Appendix A) is expected to meet or exceed a number of financial targets. One of the financial targets will be an investment Fundle Rate. Appendix B contains established Hurdle Rates for the various operating segments of the corporation. These Hurdle Rates will be reviewed on a quarrently basis and updated on an annual basis. The Capital Expenditure Planning area will publish the approved rates.

The Financial Reporting Area will report tinancial statistics (see Appendix C) for each business including Retain on Investment for each business. The financial results will give an indication of the effectiveness of the investment review process within each business. Businesses not meeting expensations may be subject to additional Researce Allocation Committee review. The Director. Financial Strategy will monitor and assess the financial performance of each segment on an ongoing basis.

KETTERN

#### Project Sponsora

All-Investigants may have an Officer of the Company of Project Source. The Project Sponsor is responsible for walking a project through the Project Review and Appenval Processes. It is the Project Sponsors responsibility to assure an investment passes all decision points in the process:

- 1. Imirial investment Screening.
- 2 Detailed Panjoot Review Capital Approval Package
- 3. Expansive Review and Approval.

The Project Sponser is also responsible for assuring that the Director of Prinance for each organization reports the status of each project to the appropriate parties on a guaranty basis.

## Project Review and Authorization Process:

The Director, Capital Expanditure Planning will work with the Project Sponsors to coordinate the analysis and review of proposed investments.

#### Non-Standard Investments are defined as:

- A. Projects exceeding \$10 million in total project cost.
- B Any nusiness adquisition or divestitue, including the purchase of sale of a minority interest in the equity of a corporation, partnership or other form of legal ownership.
- C. Any investment that signif-cautty changes KeySpan's portfolio of assets.
- D. Any major real estate perchases, sale or lease transactions.

These investments will be required to complete a three-stage review process:

#### 1. Initial Investment Screening:

Project Sponsor should develop a summary of the investment, key terms and a timesable and receive an Initial Approval from the President of the Business Unit prior to undertaking a detailed review of a potential investment. The President of the Business Unit should consult with the Chief Financial Officer and Executive Vice President of Strategic Services to assure that the potential investment takes into account factors including; the investments strategic fit; initial project returns compared to established Hurdie Rates; financing availability; and regulatory requirements or restrictions. The Project Spensor should identify the simulable for the key milestones for the project including project review and approval.

#### 2. Detailed Project Review:

Invastments that receive Inite! Approval will be required complete a detailed project plan that identifies project budget, key milestones and deliverables for the investment process. The Project Spouser will complete a comprehensive project review and financial analysis as detailed in the Capital Approval Package in Appendix D.

Subsequent to completing the Capital Approval Package, the Project Sponsor and President of the Business Unit must approve an investment before it can proceed to the Executive Review and Approval stage.

#### 3. Executive Review and Approvel Resurred:

All Non-Steadard Investments must be reviewed and approved by the Executive Committee. In certain objuinstances, the Chairman of the Executive Committee may require that an investment be reviewed and approved by the Office of the Chairman.

KE PAR

A) investments greater that \$25 to be not must also be approved by the Board of Directors of ReySpan Corporation. The Executive Committee most review and entermorated any investment presented to the Board of Directors. The Chairman of the Executive Committee may recommend that contain project below the \$25 to then intested be presented to the Board of Directors of KeySpan Corporation.

There may be investments grouter than \$10 million that are regular ongoing business expenditores related to system maintenance or mandate programs. In these cases, the Chief Financial Officer may require completion of an abbreviated financial analysis

Standard Investments are defined as transactions less than \$10 million. These investments are part of regular ongoing business expenditures and will be reviewed and approved by the Resource Allocation Committee.

There are two levels of Standard Investments:

. 1. Investments > \$3million -

Should be justified by a formal financial analysis. These investments are only required to complete Sections - 1.1, 1.2, 3, and Attachments - A. B. and C in the "Capital Approval Package" in Appendix D. The Resource Allocation Committee may request additional analysis on a specific project.

There may be investments greater than \$3 million that are regular ongoing business expenditures related to system maintenance or mandated programs. In those cases, the Chief Thanciel Officer may require completion of so abbreviated financial analysis.

#### 2. Sovestments < \$3million -

Explorated within each business unit. The Resource Allocation Committee will mount be business as part of the overall budget approved for each business unit. Afternamagement of these businesses should apply the same financial criteria and approved assumptions when documenting and evaluating investigates to assure they are adding value to the enteringse. The Capital Hapenditure Planning area of Resource Allocation Committee may periodically ask to review specific projects less than 53 million.

Executive Review and Approval Required:

The Resource Allocation Committee will review and approve expenditures incurred as part of normal business operations during the annual Resource Allocation Process. Expenditures required to support the business plan should be reviewed for each operating segment on an aggregate basis

invex.ments notween \$3 million-\$10 maßion included in the plan should be reviewed and approved on an individual basis.

#### Capital Approva' Authorization Levels:

Below are the levels of authorization required to approve projects at various expenditure levels.

u \$25	Greate than \$ million	Greater than \$10 million	\$3 million - \$9.9 million	\$500,000 - \$2,999,999	\$0 - \$499,999	Authorization Required
λ	<u> </u>	X	X	¥	X	Director VP
		· · ·	<u> </u>	<del> </del> _	ļ	Resource Allocation
- <u>x</u>	-  · · <del>,</del>	3	<del>-</del>	<del> </del> -		Committee  Executive Contributes
X	2	3		<del></del>	1	Office of the Chairman*
				<u> </u>	·	Board of Directors

<sup>\*</sup>  $R_{\rm tot}$  ion and approval of the Office of the Chairman is only required when requested by the Chairman of the Executive Convultee.

The above authorizations are based on total project costs. Multi-year projects should be aggregated to determine the level of authorization required

The subsidiary Board of Directors for KoySpan Services Inc., KeySpan Energy Development Comporation, and KeySpan Technologies, Inc. do not have the authority to approve Non-Sundard Investment. Bither the Executive Committee, Office of the Chaliman or Board of Directors of KeySpan Composition must approve these investments, as discussed shove.

The Executive Committee and Resource Allocation Committees delegates the initial review of certain types of expenditures to various sub-committees (i.e. Information Technology Steering Committee). The Committees must report back to sither the Executive Committee of Resource Allocation Committee depending on the expenditure type and investment amount. The sub-committees should assure that the ineview is consistent with the standard project evelocation methodology and approved assumptions detailed in the "Capital Approval Package" to assure investments are reviewed on a consistent basis. Projects should comply with all accounting policies related to capitalization of expenditures (Policies can be found on the Office of Finance web one or call the Manager, Financial Policies & Procedures).

#### Project Guidance and Support

Any lesses versus buy englysis or non-standard financing transaction should be reviewed and methods approved by the Financial Flaming area. Please copract the Director, Financial & Frontenic Analysis to discuss a specific project.

Contact the Oircester, Financial & Economic Analysis ter support in developing financial models to support a project request.

KE FEFAN

## Capital Approval Package Overview:

All investingings. The Capital Approval Package addresses the Standard and Non-Standard investments described above. The Hurdle Rates for each business segment to public to evaluate projects are continued to have. The Hurdle Rates for each business segment to public to evaluate projects are continued to Appendix B. These Fordle Rates are base rates and certain project tray be assigned a Risk Adjusted Fundle Rate as part of the Financial and Risk Management project review. A risk adjustment will compensate for any polytomak characteristics inherit in the graject. For example, an electric generation investment that has a contract for 100% of its output and rates based on an imputed capital structure may have the Phrelic Rate adjusted lower or allow leverage in the analysis. According to details the required data and analysis required in the "Capital Approval Package."

The Emorphise-Wide Corporate Risk Policy provides basic guidelines for menaging the Company's humbers softy'nes in accordance with its risk profile. The Capital Allnezhon Process incorporates the nonnepts and is consistent with the basic guidelines contained in the Policy. Refer to the Engagenes-Wide Corporate Risk Policy." Appendix C - Transaction Evaluation Requirements" for additional details. Contain the Director, Enterprise Risk Management to obtain a cripy of the policy.

There may be a situation where an investment decision requires expedited approval. Good planning should make these situations avoidable and exceptional in nature; however, in these situations the Project Sponsor and Capital Expenditore Planning Area will facilitate an expedited review and analysis by the various greas involved in the review process.

The "Capital Approval Package" located in Appendix D of this policy contains:

- Financial Methodology, Model Design and Data Requirements / Assumptions
- 2. Executive Summary and Approval
- 3. Transaction Justification
- 4. Risk Assessment
- 5. Supporting Documents
- 6. Financial Model
- 7. Figancial Model Review Checklist
- 8. Due Diligance Chacklists

Individual projects may be sequired to complete additional analyses at the distration of the Financial Planning Area of Enterprise Risk Management Area. These may include Present Worth of Revenue Requirements, Probabilistic Modeling, Real Options analysis, etc.

International projects will require additional analyses and assumption reviews by the Finance Group and Enterprise Risk Management Group to assure that consideraries has been made for foreign exchange, country risk, repairialion of funds, etc.

Non Standard Investments are expected to complete ail sections of the Capital Approval Package.

<u>-Standard Lygeringers</u> between 30 mill him and \$10 million will be expected to complete Sections - [4.4], 1.2, 2<sub>3</sub> and Attachnients (A. B. and Con the "Capital Approval Package," The Resource Allocation Committee may request additional analyses on a specific project

Ķ.

Keysean

#### Project Menitoring:

#### Non-Standard investments:

Project sponsors are required to monitor the progress of investments on an ongoing basis and apprise the Capital Expenditure Planning area and Executive Committee of the engoing states and actual invasions from the engoing states and actual invasions, project economic changes, ever variations, project economic changes need to be communicated to and evaluated by the Capital Expenditure Panning area and the Executive Coronines.

Cost variations of A0% of the total project cost to \$1 offlion, whichever is greater, need to be identified and reported quarterly to the Capital Expenditure Planning area and Executive Committee. A project needs to be reasses see if any variation results in a change in the overall economies of a project and the expected Rourn on Investment falls below the Hurdle Rate at the time of approval. The Executive Committee will determine if the project changes necessitate a different course of action for a project

#### Standard Urrestments:

#### à. Investments > \$3million

Project sporsors are required to monitor the progress of investments on an ongoing basis and apprise the Capital Expenditive Planning area and Resource Allocation Committee on the cagoing status and actual financial results of Standard Transactions on a quarterly basis. Expended project scope changes, cost variations, project economic changes ased to be communicated to and evaluated by the Capital Expenditure Planning area and the Resource Allocation Committee.

Any cost variation of 10% of the total project cost of \$500,000, whichever is greater, needs to be identified and reported to the Capital Expenditure Planning area and the Resource Allocation Committee on a quarterly basis.

A project needs to be massessed if any variation results in a change in the overall economics of a project and the expected Return on Investment falls below the Burdle Rate or the time of approval. The Resource Abharation Committee will determine in the project changes necessitate a lifferent course of action for a project.

# 

The management of each business unit is responsible for monitoring expenditures within their areas. (Phe Directory & Finance of each business unit is tespions the for deporting significant, results for these expenditures to the Capital Expendents Planning area of Resource Allocation Controlline may periodically ask to review specific projects less than \$3 million.

525 4569264

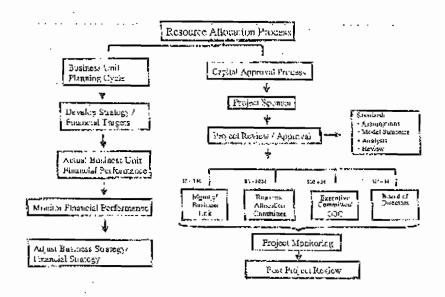
#### Post Project Revies Process:

The Innancial and Internal Additing Areas should review selected Non-Standard I tyestments and a random sample of Standard Investments. The review should focus on the adoctory of documentation, actual results compared to projections used when the project was approved and project program relative to goals. Exit strategies identified during the project review should be evaluated on an ongoing basis.

The results of the review should be used to improve the Capital Allocation Process, the estimating techniques utilized and the evaluation process. The Capital Expenditure Flaming area will coordinate this with the Internal Audit area.

# Resource Allocation / Capital Approval Process Summary:

Below is an review of the Resource Allocation / Capital Allocation Process:



Š

KEYSEAN

# Definition of Terms

	· - ·
Allowetics for Famile	Non cash parcylog pharge equal to the approved weighted average cost of
Used Traing	papital, which is compared on the contalative balance of funds investor in a
j Constr <u>uction</u>	capital project dailing its construction phase.
Asser Life	Useful economic life of the asset
Average Investment	Average of the field and equity embedded in a project in each calcudar year of
1	the project.
Capital Charge	The annual Capital Charge is equal to the burdle rate times the average
	investment. For certade that are not animal indigeneats, the hurdle should be
<u>:</u>	adjusted accordingly (e.g. for a quarterly calculation the sound builds rate
	should be divided by 4)
(Jop. Expenditure /	Ratio of total capital expendiences to not piant (property, plant & equipment
Net Plant	loss accumulated connectation and depletion).
Capital Expenditure /	Ratio of total capital expenditures to annual despeciation expense.
Depreciation	,
Capital Expenditure /	Ratio of unal capital expenditures to net revenues (total revenues less fuel and
Net Revenue	revenue tex expenses).
Capital Structure	Approved percentage of debt and senity used to finance a capital project or
	investment
Cash flow from	Ratio of case flow generated internally from business unit operations (net
operations / common	income plus annual depreciation expense, deferred taxes and changes in
dividents	working capital) to common dividencis paid.
Current Asseis /	Current essets divided by correst liabilities.
Current Liabilities	,
EBIT/Interest expense	Earnings before interest and taxes divided by interest expense.
Free cash flow	i Cash flow generated internally from operations less capital expanditures and
1	in vestments.
Free cash flow !	Ratio of free cash how to common dividends paid.
common dividends	<b>1</b> ,
	Minimum rate of return which a project must generate over his useful life in
Hurdle Rate	order to increase the value of the company. See Appendix B for approved rate
İ	for each Operating Segment.
Interest Expense / Nei	Ratio of interest expense to yet revenues (total revenues less fuel and revenue
Revenue	tax expenses).
Enternal Rate of	Discount rate at which the net present vs'ue (NPV) of an investment is zero.
Return	
Investment	Total debt plus total equity
Long term debt /	Ratio of tutal long-term debt to common equity.
cammon equity	The state of the s
Long term debt/	Ratio of total long-term debt to total expitalization.
Total Capitalization	
Net Present Value	The present value of the expected future pash flows at the approved discount
(NPV)	rate less the original cost of the investment.
	The standard of the covered and the covered an

Keyropen

	Investments: 1. Greater that, \$10 million; 2. Any business apprisition of
Nor:-Standard	diversiture, including the proclasse of sale of a minority interest in the equity of
anvestments	a comperation, partnership or other form of legal ownership. 3. Any investment
	and significantly mountes KeySpan's partio to of assets; or 4. Any major real
	estate purchases, vale or loage transaction.
O&M / Net Revenue	Ratio of operations and maintenance expenses to net revenues (total revenues
	less feel and revenue tax expenses).
Operating fucume /	Ref a of appointing income before income taxes to net revenues (total revenues
Net Revenue	less fuel and revenue tax extenses).
Payback Period	The length of time it takes to recover the initial cost of a project without regard
	to the time value of money.
Return on Equity	Earthigs available for common for a 12 month period divided by the average
(ROa)	- balance of common copity for the same period.
Return on	Ratio of earnings before interest, but after taxes, to total expitativation.
Investments (ROI)	
	Routing investments of up to \$10 million that occur during the normal course
Standard Investments	of husiness
Total Capitalization	Total debt plus preferred stock plus common capity.
Total Debt / Koral	Ratio of total debt to total capitalization(also referred to as the amount of
Capitalization	leverage).
Working Capital / Net	Ratio of working capital requirements to per revenue, (total revenues less fue)
Revenue	and revenue lax expenses).
	•

KYYYFAN

## Appendix A: Financial Reporting Segments

# Gas Distribution: KeySpan Energy Delivery, N.Y. KeySpan Energy Delivery, L.I Boston Gas Essex Gas Colonial Gas Phengy North Total

#### Electric Operations

Concration Long Island
Transmission and Distribution
Energy Management
Glammand
Por Jefferson
Total LIPA
Generation Ravenswood
KeySpan Energy Supply
KeySpan Operating Services
Total

#### Energy Investments

The Houston Exploration Company
KeySpan Exploration & Production
Sub-total E&P
Investments in Iroqueis
KeySpan Caunda
Northert, Ireland
KeySpan North East Venturus
KeySpan Fuergy Development
Transgas
Other
Sub-total Other
Total

#### Amergy Services

KeySpan Business Solutions KeySpan Home Energy Services KeySpan Energy Services KeySpan Communications KeySpan Services Inc Total

#### Notes:

 Figure(a) Reporting segments will be reviewed on a periodic basis to reflect changes in durporate structure and level of investment in each segment.

# Appendix B: Hardle Raies by Operating Segment

Gas Districution	100% Equity Hurdle Rate
Electric Generation - 75% + SPA	16%
Gas Midstream Operations Regulated (Pipeline, Storage, Other) Unregulated (Gas Processing, Other)	10% 25%
Merchant Electric Generation	TRD *
Information Technology Investments	15%
Energy Related Services	20%

<sup>\*</sup> Hundle Rate to be evaluated on a case by case basis due to content state of flux in this sector

#### Notes:

- The Fundle Rates are post yed using the expanded CAPM method and based on an unlevered bets haved upon 100% expany financing.
- Heiddo rates will be updated aroundly and reviewed and updated quarterly if discomptances workent.
- The Chief Pinancial Officer may request that a specific project or reviewed with an assumed capital structure (see p.15) and compared to a levered hundle rate, if circumstances warrant.
- International projects Hurdie Rutes may be risk adjusted based on the circumstances of the
  proposed project to assure that consideration has been made for foreign exchange, country risk,
  repatriction of finds, etc.

PETTER

## Appendix C: Summary Financial Statistics

Below is a summary of additional functional performance metrics to be reported on a business unit / line of intents s basis on a quertally basis to allow better business performance measurement.

- Income Stauments, Balance Sheets and Cash Flow Statements by line-of business. Summary income and pash flow statement variations.
- 2. Return on invosument, consolidated return on equity for each regulated entity, corporate consolidated return on equity, total debt / total capitalization, long term deutl/ total capitalization, long term deutl/ total capitalization adjusted for leases, cash flow from operations / mesuest before and after working capital, TOSCT / mesees, current essets / current habilities.
- 5. O&M/ netrevenut, operating incline/ not revenue, cap ex / not revenue, cap ex / net plact, interest expense / net revenue, working capital / net revenue, cap ex / depreciation, cash flow from operations / common dividends. They cash flow / common dividends.

#### Note:

 Reporting requirements will be reviewed periodically and adjusted to meet corporate or business unit requirements

KETSTER

#### Appendix D: Capital Approval Package

The Capital Approval Package is an expenditure request that must be completed for all capital expenditures greater than S3 million.

Star Card Investments between \$2 million and \$10 million will be expected to complete Sections - \$4.1, 1.2, 2, and Attachments - A, B and C in the "Capital Approval Package," The Executive Committee or the Resource Allocation Controller may request additional analysis on a specific crosect.

The Project Sponsor has primary responsibility for ensuring this document is completed

#### Phonois' Methodology and Model Design

All projects to be presented to a reviewing occuration shall include standard analyses and assumptions. Financial model inputs, assumptions, assumption sources and calculations must be clearly identified and easily verified by others. Assumptions shall be audiend on first page of the financial model.

The financial models should include the Income Statement, Falance Spect and Statement of Cash Flow. The generic headings below are identified for reference only and should be used as a golde to completing project specific financial statements.

14

## General Income Statement information:

Revenue Less Expense Equal Operating Income Less Interest Charges Less Income taxes Equals Net Income

#### Genzal Balance Sheet information:

Assers

Current Assets
Property
Defenred charges

Tatu. Assets

Liabilities and Capitalization

Conent Liabilities .
Defened credits

Capitalization
Total Liabilities and Capitalization

# General Cash Frow information (3 sections):

Operating Activities Investing activities Financing activities

MOVERN

(

All projects simulable madeled assuming 100% equity financing. Handle Rates that a project will be compared against nave been derived based on this assumption.

Proximital model projections should encompose the economic life of the underlying observation may not 20 years. For assets with a perpetual life.

Projects should assume a reasonable terminal value if appropriate. The project results should be prosepred including and excluding the terminal value

All financial models shall present Earnings Per Share (EPS) calculations that include KSE consolidated EPS as well as the EPS for the specific project. Project (jarryings per Share is the calculation specific to the project. It is the set meaning generated by the project divided by the number of common shares issued to finance the project.

Consolidated Earnings per Share is the calculation for the project impact on KeySpan Corporation as a whole. The financial data for the project lengthed into the overall corporaty financial data for the project lengthed into the overall corporaty financial forecast to arrive at the consolidated EPS impact. In the consolidated information, the financial statements shall show the pre-project EPS and post-project EPS and whether the project is ancretive or distribute to the company's EPS.

Below are the long-term capitalization tersets for each operating segment. These targets should be used to model the impact of the project or consolidated EPS.

	Debt/Equity
Gus Discribution	50/50
Blactric Generation - 75% + FPA	50/50
Membast Electric Generation	180+
Cas Midsteam Operations	
- Regulated (Pipoline, Storage, Other)	50/50
- Unregulated (Gas Processing, Other)	40/60
Energy Related Services	35/65
information Technology Investments	100% Ecuity

<sup>\*</sup> Long term targeted capital structures for this segment are being re-evaluated due to the outrem, opportain assume of this segment. An assumed capital structure will be determined for each project evaluated.

Unless stated otherwise, all equity to be issued for new projects shall carry a discount of 10% to the current market price. The market price used to mark the discount should be identified with the price and the date. The discounted equity price shall be the price used to calculate common stockholders' equity for project and consolidated EPS purposes.

**EXPERSIS** 

At least 3 sensitivities should be presented ; a best case, werst case and expected scenario. Simulation analyses may be unificant to test key modes variables and enhance the southand analysis. There are no upper limit on how many "what it" cases should be presented, however, it is becalicial to the company to have as many caseonable and foreseable scenarios mapped out for discussion and computage as possible.

Any deviations from required treatment shall be specifically noted in the Capital Approval Peckage.

#### Data Requirements and Assumptions

Commodity Prices	The Engineral and Economic Analysis Department shall be consulted to
(if epplicable)	distermine the appropriate commodity price forecast to be used in the analysis.
Liscount rate	The approved Hurdio Rate for the applicable operating segment shall be used
	as the discount rate. Huidle Rates for each operating segment and type of
	investment are listed in Appendix D.
Exchange Rates	- The Financial and Economic-Analysis Department shall be consulted to
(if applicable)	determine the appropriate exchange rate forecast to be used in the analysis.
(F2)	
Inflation - Labor	The Financial and Hadpornic Analysis Department shall be consulted to
	determine the appropriate inflation rate to be assumed. The rate decided upon
	shall be applied in all related analyses.
Inflation − O&M	The Financial and Konnomic Applysis Department shall be consulted to
	determine the appropriate inflation rate to be assumed. The rate decided upon
	shall be applied in all related analyses.
Insorance	The Imanoise and Economic Analysis Department shall be consulted to
	determine the appropriate insurance rate to be assumed. The rate decided upon
	shall be applied in all related analyses.
Interest rate	Treasury shall be consulted to determine the appropriate interest rate to be
	used on my debt financing of the investment. Projects shall be assumed to be
	financed with long-term debt having a term consistent with the useful life of
	the investment
Taxes	Appropriate tax treatment and rates at all tax levels shall be used. The Tax
E 13.202	Department shall be consulted to verify tax rates and identify any unique tax
	impacts that must be reflected in the englysis.
Termingi Value	An appropriate lemmal value calculated in a manner consistent with the exil
111111121 7 <b>31</b> 23	elections for the temperature shall be exflorted in the mode of a continuous A.
	strategy for the transaction shall be reflected in the analysis if applicable. All
	analyses will be run including and excluding the terminal value.

KEYEPAN

#### Section 1 - Executive Summary and Approva

President Name   Majey Capeeris?   V   K		Section 1.	" RASCRIVE M	11171117	ny ano A	pprorai		
Structures Liff: Project Symmetry Trially's Date:  Ext. Clove Date:  Struction Description:  If Eachy or Carbon Date:  Triansaction Description:  If Eachy or Carbon Date:  Triansaction of the remaining of the symmetry of the symmetry driver of researce and explanes, major counterparties, contingent capital requirements or groundists, the symmetry driver of researce and explanes, major counterparties, contingent capital requirements or groundists, the symmetry driver of researce and explanes, major counterparties, contingent capital requirements or groundists, the primary driver of researce and explanes, major counterparties, contingent capital requirements or groundists, the primary driver of researce and explanes, major counterparties, contingent capital requirements or groundists, the primary driver of researce and explanes, major counterparties, contingent capital requirements or groundists, the primary driver of researce and explanes, major counterparties, contingent capital requirements or groundists, the primary driver of researce and explanes, major counterparties, contingent capital requirements or groundists, the primary driver of researce and explanes, major counterparties, contingent capital requirements or groundists, the primary driver of researce and explanes, major counterparties, contingent capital requirements or groundists, the primary driver drive		ECH-						
Project Spanner: Today's Date:  Fix. Close Date:  St. J. Service Date:  Transaction Description:  [Clearly artenaise in a few reatences have the transaction ledge Kepfyers meet its strategic and financial goals. In addition, the rationale for proceeding and the transaction's key contideration (cases twolved, location, the primary devices of researce and explanes), major counterparties, contingent capital requirements or general primary devices of researce and explanes), major counterparties, contingent capital requirements or generalises, etc.; should be summarized.  The averagion Straight be written for a version that is familiar with the project, but un landitiar with the santspiller. The averagion of the project o	Transaction Name:	_				Major Concerns?	Y	į N
Total Service Date:  281. In Service Date:  282. In Service Date:  283. In Service Date:  283. In Service Date:  284. In Service Date:  285. In Service Date:  286. In Service Date:  287. In Service Date:  288. In Service Date:  2	Susiness 1.13ft! .					Strategic:		
Transaction Description:  If the chy of cache to a few restances have the transaction to the Keyloran meet to strategic and financial goals. In addition, the restances and september, major counterparties, contingent capital requirements or groundses, major counterparties, contingent capital requirements or groundses, and, should be summarized.  The major option should be written to a conson them is familiar with the tradestry, but unlanding with the analysis, that unlanding with the analysis.  The major option should be written to a conson them is familiar with the tradestry, but unlanding with the analysis.  The major option should be written to a conson them is familiar with the tradestry, but unlanding with the analysis.  The major option should be written to a conson them is familiar with the tradestry, but unlanding with the analysis.  The major option should be written to a conson them is familiar with the tradestry, but unlanding with the analysis.  The major option should be written to a conson them in the tradestry.  The major of the tradestry of the major option to a summarized.  The major of the tradestry of the major option to a summarized.  The major of the tradestry of the major option to a summarized state of the major option to a summarized.  The major of the tradestry of the major option to a summarized state of the major option to a summarized.  The major of the major option to a summarized state of the major option to a summarized.  The major of the major option to a summarized state of the major o	Project Sponsor:					Regulator		1
Transaction Description:  [Clearly articulate in a few restances how the transaction teles Keptipus meet in strategie and financial goals. In addition, the rationale for proceeding and the transaction teles considerations (cones two location, the primary drivers of resonance and explanes), major counterparties, contingent capital requirements or grotanties, etc.; should be summarized.  [The distance should be within for a genson that is familiar with the midsely, but an auditial with the against the proceeding of the proceeding of the midsely for the process of the proc	Today's Date:					Financial:	j	
Transaction Description:  [Clearly articulate in a few restances how the transaction teles Keptipus meet in strategie and financial goals. In addition, the rationale for proceeding and the transaction teles considerations (cones two location, the primary drivers of resonance and explanes), major counterparties, contingent capital requirements or grotanties, etc.; should be summarized.  [The distance should be within for a genson that is familiar with the midsely, but an auditial with the against the proceeding of the proceeding of the midsely for the process of the proc	Est. Close Date:						į	
Transaction Description:  (Clearly orlinative in a flow reateness how the frantaction feeles Replican meet to alreage and financial goals. In addition, the rationale for proceeding and the transaction's key considerations (cones tevolved, location, the primery driver, of recenture and expenses, major transformatics, contingent capital requirements or grottanties), etc.; should be summarized.  The appendion should be written for a person that is familiar with the radiostry, but unlanditiar with the passaction of Proceeding and Procedure of Proced	Zet In Service Date:	·- <del></del>					: 1	
Clearly of Carlos in a few reastences how the formancians indige Replying most in change on a financial goals. In addition, the rationale for proceeding and the frontaction's key considerations (cones to older for anon, the primary drivers of resenter and explanet, major countryparlies, contingent capital requirements or groundses, and, should be summarized.    The appropriate should be written for a person that is familiar with the redustry, but unlandition with the massachout.     The appropriate   Crischi   Norther Crowder.   Other	2317717011111111111111111111111111111111							
Clearly of Carlos in a few reastences how the formancians indige Replying most in change on a financial goals. In addition, the rationale for proceeding and the frontaction's key considerations (cones to older for anon, the primary drivers of resenter and explanet, major countryparlies, contingent capital requirements or groundses, and, should be summarized.    The appropriate should be written for a person that is familiar with the redustry, but unlandition with the massachout.     The appropriate   Crischi   Norther Crowder.   Other	Transaction Descri	eindiane						
addition, the retinate for proceeding and the transaction's key consideration (cross two leaf, locators, the primary drivers of resonate and expenses, one or wounterparties, contingent capital requirements or given thirty.  The area primary driver is constant for a person that is familiar with the industry, but unlanditial with the manager.  The area primary driver is constant for a person that is familiar with the industry, but unlanditial with the manager.  The area primary driver is a primary driver of the process of the primary driver.  The area primary driver is a primary driver of the primary driver of the primary driver.  The area primary driver driver driver driver driver driver driver driver.  The area of the primary driver driver driver driver driver driver driver driver driver.  The area of the driver   The area of the driver			row the foundarding f	arties Ke	المعصيم برسراكان	iv Americand Sugar	នៅនៅ ១០នាង	. In
The therepion should be summarized.  The therepion should be within the exposon that is familiar with the miliate, but un anothin with the nanostry, but un anothin with the nanostry to the property of the p								
The discription should be written for a person that is familiar with the trabitive, but un habitiar with the trabitive of the property of the			ses, major counterpa	udiča, ci	natityyvai caj	silal requirements or	gwasantse	1,
Transpacition   Crowled   Nun Growth   O) Nor   This   Color   Total Capital (000s)   Total Negurin Stuming   Other   Other    Total Capital (000s)   S   Frequent   Frequent   Total Capital (000s)   S   Frequent   Frequent   Total Capital (000s)   S   Frequent   Total Capital (000s)   S   Frequent   Frequent   Frequent   Frequent   Total Capital (000s)   S   Frequent   Fr	atc.; skould be summe	irizež.						
Transpacition   Crowled   Nun Growth   O) Nor   This   Color   Total Capital (000s)   Total Negurin Stuming   Other   Other    Total Capital (000s)   S   Frequent   Frequent   Total Capital (000s)   S   Frequent   Frequent   Total Capital (000s)   S   Frequent   Total Capital (000s)   S   Frequent   Frequent   Frequent   Frequent   Total Capital (000s)   S   Frequent   Fr								
Type   Vester and   Dovelopment   Maxible Timing   Tiveshure   Gelekt   Toaternental	The mac pion shoul	<u>.d iso westuu for a</u>	gerson that is famile	ar with	the endustry,	hut un kadiliar with th	ىلىپ <b>ەي</b> رى <u>دى</u> د	wil.
Type   Vester and   Dovelopment   Maxible Timing   Tiveshure   Gelekt   Toaternental	December   Co.	an traction	3002:	17351	ior · · · · ·	- 310000000	In Box	1901
Total Capital (000s) S Frojet Hurtle Rate (CAT) Base Case IRR Base Case IRR wo Term, Value S Sear Case NPV S S Sear Case NPV wo Term, Value Tactor I:  Factor 2  Annual Performance—Rase Case (CST) University Charge I'E' = A'Gri Return ato Capital (CST) Case Flow  Capital (S000s) and Returns (S)  Average investment (TST)  Return ato Capital (TST)  Return Suprise  Other:  Ot							<del></del>	<u> </u>
Total Capital (000s) S  Froject Hurdle Rate (YAT)  Blace Case IRR  Base Case IRR	Usediculones.			$\rightarrow$		(One)		
Total Capital (000s) S Frajaci Huarite Rate (CAT) S Base Case IRR % Base Case IRR % Base Case NPV Asse Case NPV w/o Term, Value S Payback Y74.  Playback Y74.  Playback Y75.  Playback Y75.  Annual Performance - Rase Case 2003 2004 2005 2006 2007  Less: Taxes ("U") Unleyered Net Lemme ("D") Less: Case Sin. Charge ("P"=D-E) Case Flow  Case Investment ("G") Return on Investment ("G")	A	.ag.cixitium	Nun-Hex. Timing	_1_	Other:	4.45.52	Other:	
Total Capital (000s) S Frajaci Huarite Rate (CAT) S Base Case IRR % Base Case IRR % Base Case NPV Asse Case NPV w/o Term, Value S Payback Y74.  Playback Y74.  Playback Y75.  Playback Y75.  Annual Performance - Rase Case 2003 2004 2005 2006 2007  Less: Taxes ("U") Unleyered Net Lemme ("D") Less: Case Sin. Charge ("P"=D-E) Case Flow  Case Investment ("G") Return on Investment ("G")		10.50.10.10.10.10.10.10.10.10.10.10.10.10.10	95.5. 5 \$5.5.				7. 4 . 31	···
Total Captest (1903) Froject Hardle Rate ("A") Buse Case IRR Base Case IRR Base Case NPV date Case N			otal Keggr	n Sunr	mary	<u> </u>		
Total Captest (1903) Froject Hardle Rate ("A") Buse Case IRR Base Case IRR Base Case NPV date Case N	1	1_ !		u 200				
Biss: Case IRR				22		Mear.		
Tisk factors not included in probabilistic analysis:		' .	4	524		<b>∤</b> ¶		
Tisk factors not included in probabilistic analysis:			ğ			$i$ $\Omega$		
Tisk factors not included in probabilistic analysis:			<u> </u>	5.62		i Dake		
Tisk factors not included in probabilistic analysis:			ĕ		1	<b>⊕</b> Case		
Tisk factors not included in probabilistic analysis:	Sase Case NPV	T <sub>5</sub>	ğ	22	ĺ	<u> </u>		
Tisk factors not included in probabilistic analysis:			<u>.2</u> .	. 55	} storeH	11		
Tisk factors not included in probabilistic analysis:	Terus Value	. 5	<b>~</b>		Rent∫	111		
Tisk factors not included in probabilistic analysis:		1	Ş	1 3-	-1i	- i ! \		
Company   Comp	Payback	Yrk.	€	г	<b></b>   / −	· · · · · ·		
Description				-ઃજ્યન્	<u>~</u> by4—		<del>-</del>	
Factor 1:				_				
Factor 2					312	TRR		
Annual Performance				Ţ <u>8</u>	0/3- ut distript ac	on Jeg between 11% and t	- 18	
Less: Taxes ("U")   Unlayered Net Income ("D")   Return after Capital (Charge I"F"=D-E)   Capital (S000s) and Returns (S):   Average Investment ("G")   Return on Investment ("G")   Return on Investment ("T"=I'vG)	1 40 40							
Less: Taxes ("U")   Unlayered Net Income ("D")   Return after Capital (Charge I"F"=D-E)   Capital (S000s) and Returns (S):   Average Investment ("G")   Return on Investment ("G")   Return on Investment ("T"=I'vG)	Annual Performance	n - Rase Care		2003	2004	2005 .2006	2 INI	7.
Unlayered Net Income ("D")				·				
Leas: Capital Charge ("B"=A"G)	Less: Taxat ("L")			i				
Return after Cantra Charge PPF=D-E)	Unlayered Net Incom	ne ('D')						
Cash Flow   Capital (\$000s) and Refurns (\$):								
Capital (\$000s) and Returns (\$):   Average Investment ("G")		(.harge !"F"=D-b	=)	ļ				
Average Investment ("G")	Case How			<u></u>				
Return on Investment (*TP=IvG)   \$\\ \\$ \\ \\			Capital (\$000s) a	nd Refe	цтпх (%):			
Impact to Key Span:				l				
	Return on Investmen	a (°1Y°≈EvCr)				<u>≥</u> ≥	- 15	
Accresion/(Effution) to Conactioned Corporate EPS   \$   \$   \$   \$   \$		<del></del>						
	Accretion (Dilution)	to Conschörted	Corporate EPS	ŝ	\$	\$ 5		<u> </u>

KEVSEGN

#### Section 1.2 - Executive Authorization

Ару	orevals Required for Expe	uditures 53 Million to STO	Million
Fanctine (ite	Nation	Signature	Clate
Meral Middlaness Unit			
Restanté Alice, Guran.	Wally Parker		
Resource Allow Comm.	Boa Fas.		
Resource Alloc Comits.	Charg Lakermen		
Resguera Allee, Comm.	Steve Zelkowitz		

Resident of Business, to d		
Fredutive Committee 1	John Beshar, .m.	
Executed Columns	John Carnsolti	1
Executive Constitute	Bab Fani	* CEO and CFO will sign
Executive Contriltee	Teay Negrobbio	
Justiniais Committee	Wally Priker	en peaulf of majority of
	Lenore Pulco	the Executive Committee
£ \$5000 \$ Committee	Nick Stavpopenios	
By of Girly o' Contribution	Elaine Weinstein	1
Exac rave Chiremence	Steve Zelkuwitz	
Properties Committee 6	Gerry Latterman	
TED.	Robert Caret.	T

#### Authorization Requirements:

- Project Spouse: and responsy of the Resource Allegation Control tas for all computal expenditures between \$3 million and \$10 million.
- Project Sponsor and the ChO and ChO and ChO, duting on behalf of a anguilty of the Executive Committee, required for all expiral expenditures greater than \$10 million.

Board of Director outloods that for all capital expenditures greater than 325 million must be obtained through a Brian resolution property by the Cooperate Secretary

MET SE SAN

Capital Approval Policy

25

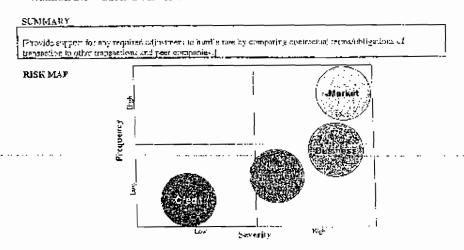
Section 1.3 - Functional Review Comments

		Pro	inidi Y				į
Required Review	Review Sammafy	3"	N	Approval Contingers	Reviewing Jardé	Initials	; Date
Filiance	(sict also Adschment B.	—- <u>;</u>	7		(rinerwish		
	Paramial Modul Region Checklish		;	j	Planding Officer		ļ
Enterprise Risk Vlaragement	(Sec. also Section 3, Tusk	_			Chilef Risk Officer	 	
Treasury and Credit Protestions					Treasury Officer	[	
Logal					General Coneset	· · · · · · · · · · · · · · · · · · ·	Ţ <del></del>
Strategie, Hinnige Togord					Strategic Services Offices		
Accounting					Controller		
nddicing Review	, in πυρίκαυμε		T		S (C) of the D. (C) of the CT Officer	1	6.401.
HR			1		HR Office		j
Karporale Services			İ		Client Services Officer		
Tare Principle nital			<u> </u>		Environmental Officer		
Epipeering					Singiresting Officer		1 -
Commercial	1				Commercial office:		<u> </u>
Other				··: ··· — — — —	Other Officer		

KETSFAN

#### Section 3 - Risk Assessment

#### Section 3.1 - Risk Overview



Section 3.2 - Quantitative Analysis and Results

Approach to Probabilistic Analysis:

Tecutify which financial model assumptions are describinate (single parts) and which are probabilistic. Discuss probability in approach and provide reasoning for selection of probability distributions for assumptions (for complex mindole, include detailed analysis with details or probability distributions of assembliche and outputs of an Appendia).

Results of Probabilistic Analysis (distribution of IRR):

(Provide saminary of redults and company NeW from single point analysis to most, of NPV astrogrambulation). approach. Disture reasons for differences. Comment on carrainlity of mitomore using probabilistic approach. A similar approach should be applied to net income and east though

Scenario Analysis

[Test for extreme averus with scenario development,]

Review of Optionality:

[Identify and discuss from to use to create apside. Discuss whether opt builtly been consulted in the base case ]

Section 3 completed by:	Signature	Date
	!	

Ketsfan

# Atrachment A - Financial Model Overview

(to be completed by the grayed spoisor)

#### Dare of Final Model:

Capital Requirements (000s)	2002	2003	2004	2005	2006)
Fixed Assets					i
Working Capital					
Liab. Assumed					
Confingent Liab.				ļ <del></del> -	
Other Capttal .					i
Tetal Capital			<u> </u>		

Model Structure (detailed base case financial model in Attachment C):
Provide a written automaty of:
Model legis/ealeulation flow (for complex models, propage a schematic).
Model legis/ealeulation flow (for complex models, propage a schematic).
Model legis/ealeulation flow (for complex models, propage a schematic).

Maint Mhuel Assisaplain	Base ::	Basis Source	Range for Besparles
Revenue grawth (average amount)	9h		
Operating expense growth, noncommodity (average analysi)	Si.		
Expected annual credit loss (specify 5 or % of revenue)			
Systement in the Survivies of American (specify 5 or % of American)			
Average from a south Change in working dapital (checify § or % of revenue)			
Assumed useful life (years)			
Projection period (verus)	i		
Terminal value (S value before discounting)	· -		
Year of terminal value estimate		1	1
Discount rate used for NFV calculation	1 %		<u> </u>
Othe.		1	

Esceptions to Required Treatment/Methodology:
[Confert has cost and adea standard assumptions for inflation develops %, interest rates, commodity prices, exclange taxes and tax rate. Explain any deviations from confining system locus or methods.

Attachment A completed by:	Signature	Date

NEV SPAN

# Attachment B - Financial Model Review Checklist -

(to be completed by the Figures and Eccusion's Applysis Denormant).

Date of model reviewed:

_	į į	ار		
έ.	اخ ا	Ž	Irom Reviewed	Comment
_			Model anglorus to and possidus information recurred under KaySpan's storder?	
			modeling requirements	
			Mindel design accurately reflects the transaction (conforms to legal decorrolls	1
	l	<u> </u>	trans setion structure, tax rogularemonas, 200.)	
	i		Model legis has been thereegally reviewed and no pelociation errors have been identified.	ļ — — —
	ī —	i	Key assumptions have been clearly identified in one area of the model	
			Sources for key assumptions have been identified (purside consultants, contract at	1 -
		1	arrengements, merket data, historical relationship, etc.)	1
	!		Important variables have been reviewed for reasonableness, including:	
	Τ_	1	Resente growth finefacing assumptions that impact)	
_	Τ-	1 -	Community arreas	
	7		Consting expenses (including assumptions that Impact)	
	: -		Counterparty profit (expected and unexpected (test)	Ţ
		i	Environmento) costs	
		1	! Insurance costs	
	<del> </del> -		Trivici lik	1
	-		Taxes (tax department must reviewed model)	
		T	Jr flatige	
	<b>. ,~</b>	<u> </u>	Usaful like	
_			; Terminal value	-
		Ţ	Werking capital	
		$\top$	For asset of business combinations, synangy benefits have been reviewed	
_	!-	_	Distract rate	7
		1	Key variables have been compared in historical sevents, nodes by benchmarks and	
		:	resear KeySpan transactions (natterial variances documented)	
			Exit strategy, marketability of investment and repatriation of capital have been	· -
		_Ĺ	reviewed, clearly summarized and detectained to be senso about	
		-F	Incline statement, balance sheet and cash flow statements have been prepried and	:
		۷	continuity US GAAP (indeprecapions)	
	!	1	Literest expense has been expelained for development projects requiring more	;
<b>_</b> .	$\perp$		distrigo days to antispleto	
			For fareign projects, appropriate consideration has been made for foreign	
_	$\perp$		exchange, claimtry first, repetitation or floods, etc.	
		}	Reviewed float day diffigures (is, and confirmed mesocial findings appropriately	! .
	!.	-L-	incorporated into model.	
	. i		Other:	

Keyffan

Summary of Additional Financial Analysis Performed:  Attartiment B completed by: Squature. Onto	thet Comments on P. Provide summary of th	inancisì Mudoi: <sub>N</sub> independent rec	ucis developed, resu	ng al essemptions, reas	inshienesk attack	., ow.!
Affarirmen: B completed by: Squature. Date						
A thar brace is to complete if by: Signature Date						
A thur timen :- 18 completed by: Signature						
A thar brace is to complete if by: Signature Date						
A thar brace is to complete if by: Signature Date						
A thar brace is to complete if by: Signature Date						
	noilible A lo yran mui	nd Dinameial Ana	lysis Performed:			•
				<u> </u>		<b>.</b> . <b>.</b>
	<del></del>					
	Atturbmen: It compl	ofeil by:	. Signatuse.		.) Date	` . ` . `
			[		<del></del>	
				· · · · · · · · · · · · · · · · · · ·	<del></del>	
	•					

### Attachment C-Financial Model

Any deviations from the required finational model treatment must be specifically noted in Section 2.2 under the heading "Exceptions to Required Treatment/Methodology".

#### Attach:

Detailed base case financial should with assumptions clearly identified. Required items include income statement, balance shoul, cash flow statement and required ratios.

Summary of sensitivity cases run - (ROLNEV, 168, EBIT, Payback, etc.).

MEYSFEL!

# $\label{eq:Attachment} A + Due\ Dibgence\ Checklist\ for\ Acquisitions\ and\ Divest tures$

(to be completed by the perjust sponsor and support functions).

ATTACH COMPLETED DUE DILIGENCE CHECKLIST (From Functional Area)

For Acquisition and Divestiture activities, the following functions, areas are responsible try performing due conjected. The Financial and Economic Analysis area maintains detailed checklist for each area listed perow.

- Engineering
- Enterprise Risk Management
- Jinvironuumtal
- Minance
- Gas Supply
- Human Resources
- Thiforination Technology
- Legai
- Real Estate
- Regulatory
- Strategic Planning & Performance Tax and Accounting
- Treasury and Credit Operations
- Other, as applicable.

Each area shall have policies and procedures to place for conducting due diligence matters. The policies and procedures shall be reviewed on a regular basis for thoroughness and updated as needed.

- 26

#### ENERGYNORTH NATURAL GAS, INC. D/B/A NATIONAL GRID NIL DG 08-009

#### National Grid NII's Responses to Data Recuests from Technical Session #2

Date Request Received: October 6, 2008

Date of Response: October 17, 2008

Rixquest No. Tech 2-20

Witness: Susan Flock

REQUEST: Please rerun the analysis provided in response to Staff 1-41 and 1-42. based on the following changed inputs: (a) revenue based on temporary rutes; (b) marginal costs instead of historical easts; (b) remove bad debt expense; (c) remove marketing expense; (d) debt service at 30 years; (d) weighted average service life for banked depreciation for mains (60 years), services (40 years) and meters (35 years).

RESPONSE: The answer to the question is contained in the attachments Tech 2-30 (42) and Tech 2-20 (42). Attachment Tech 2-20(41) covers the re-run of staff. 1-41 and attachment Tech 2-20(42) covers the re-run of staff 1-42. Also attached are the two internal rate of return models that developed the results shown in the attachments.

National Grid NH DG 08-009 Attachment Tech 2-20 Page 1 of 3

## TECH 2-20

Requests for Service	50D
Number of Requests Reculring a Contribution	31
Number of services installed	483
Number of installations requiring a contribution	2B
Tatel emount of Contributions	\$12,262
Total Cost of In≋tallations	\$1,356,018
Estmated Annual revenues from installations	\$203,343
Actual annual revenues from installations received in 2007	\$114,739
Number of customer contribution refunds	0
Return on Investment on forecasted annual revenue	6,36%

¥	Apart Design	W Art.	4205 142 123 SA	::	4300 141 1111,141	i.i	6400 0000			2	2015 64433 372.4 62433		11.00.5 572.00.5 17.00.00.00.00.00.00.00.00.00.00.00.00.00	9257.ck 0000.cd	233762 380,232	ett'mb mates	unter State	thick by **	POFERS. ICERCA	KIMIG 221.#	milities and the	5.800 S004	. W. 112.00 112.	20423 62482	73 AV 187	416	
Ř.	PrijaX I	al c	<b>Q</b>	Ř	32133	ង	200			ĸ	14	: M 5	8 <b>4</b>	¥116.524	5 EV/5	\$74,712	W/A/W	347)46	Reffeic	11.383	40000	3731654	929,640	13.40	429 64	¥:-44	
Ā	Price Pri	2007	#308.64:	u	500,242	ij	DE'NES			R	2000 2000 2000 2000 2000 2000 2000 200	i R	Carry Co	371.11	21.73	30.00	an car	7. 17.	 2	\$18 323	11:11	¥ 134	#5K.724	38453	49'00	Anny 440	
Ę	(ACHEA	(A)	(d)	ş	140,000	SI	17,00			¥	not Ex	: ::	64	#IM##	(X) 88	¥. 225	575,413	.91744	881,006	のイジに	56.55	da,	22. MP.	20713	7.6	*****	
Ř	अभ्यत्यः	4000	** ***********************************	Ľ	502,203	L§	\$10,212			2	48. 48.	2	56.5	77W 221 G	31: :1E	20% 20%	11,144	ž.	50 No.	2000	M44.04	***	#1,192	58.63%	10,833	18/3403	
: R	0.022215	90/34	22,121	ř	2000	Ħ	्रत्यस्य			u	14 14 14	a uş	FI I	arsen.	est'his	AL 388	D.'B.	.pr( ***	80F*\$4	60000	4	Safeti	ž	2 2	**	21.23	
¥.	2 (20) 4		(F(*)33)	а	EM,010	R	(40,125)			2	78. 24	i R S	2000	9,82,4	18,005	52,65	denote the	430	# ::::::::::::::::::::::::::::::::::::	20.37	110.43	10.08	246,392	27	No tes	100,000	
ä	95,866	-316	÷(86)	L:	5305,242	£:	SACOR			8	間 (名) で (2) (2)	<b>3</b>		3:2:2:5	82.73	2017	# in #	***	:: #	ä	12.296	24.1218	Per 16	18.15%	822,036	(1×1, 144	
g.	353141	45176	\$23 EUL#	Ħ	590 343	Ħ	37.0k*			ı:	## 8¥71	u u s	G E	: 31,997	しゃなる	222,800	0.000	See See	\$ in (8)	H 2	20 204	Ar to	#	28.63	\$11,538	er jag	
						800'8756	K.73 17.P	HXIDXL	2.2 7.12	1130611											(30%) (60%)	SHEATING				(ALL BOX Lab	

3

į

Presting															,															٠.
2 Mar 2	386	14 352,01	4.10	14.25	Ę.	505.347		36,362				3	2 . 3 .	# 64 E1	-61,13			:(4.)}:	اد: <sup>ا</sup> . تع	vec;239	. (20'29)	£\$.33	\$29,557		#V152	2 = 6	F2234	1320		
ñ	233	1. 30 K	. 3	420354	2	501505	ä	0.0000				Σ	547,158 541,154	មព្យូត្ គេមួន	1.2.764		11.70.5	E X	38.4	SC1.77#	82.00	AN	9rr 535	#3( <b>%</b> );	210,012	11.00%	26	548C,W1		
	:aus	5:W. 11: 14	(E. N3	34,000	G	4564,141	ç	* \$5				×	3 <b>8 #</b>	ងក់ខ្លែនិ ពិតិនិ	80		3412,437	545,783	34'64	2	823,073	11. 11	80.03	11,97	(1007	7.11 N	¥.	: 3 k		
	- R	11,85,61	<b>615</b>	230.20	ŭ	9	럷	(at total				÷	្តត្តប ក្នុង	-=:# \$\$\$	IN CO.		\$10.674	î	37.236	4925	1000	400,145	<u>.</u>	30.70	0.724		222,694	111/3113		
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	27.	0.0720.0	4.7.	1865,343	7	\$200,343	ij	141 UM				¥		2998 283 283	.e.		R*212	25,12	574,337	17/1/12	(i. %#	1	:: k	:: XX	1	73.60	100	E To		
POSECO ELPOTANCITUM EGENTAL POSECO (P. 1787)  THE POSECO POSECO (P. 1787)  THE POSECO	ñ 	4.1404.4	***	# W	H	8.65	ä	4000				3	7.7.7. 18.1.7.	3 A S S S	\$105.234		3021045	F-3 (L-8	-	#22 KS4	33165	. 000	997 (E	*	R. El	Ä	23,65	SEC. 113		
EVERAVE	55	21,333 016	200	27.11.2	ş	æ.×	ឆ	145,000				7	## ###	70 20 8 8 4 6	4.0166		72 etc	è	977	19122	LTA,SCS	MAN	F1 A44	514,633	57,314	4.67.3	ŧ	110,011		
	ĝ	410,220.18	45,315	(MCDS	ā	5505.343	17	\$60,343				æ	1976. 1976.	13.00 10.00 10.00			127.22	'22	550,353	\$57,114	(\$0.07)	11.11	Have	\$40 m	41.6 415	23,484	ğ	31.3110		
	.F.24	1 6757.4	46,447	0(%)	r.	2407043	¥	\$200 745				9	4007 4007 4007 4007 4007 4007 4007 4007	M	: 158,35		::'as	475,822	\$ ME	¥ 1	138.13	ij	11,574	.20.20.6	2	497.03	70 6 <b>3</b>			
	£.	9' AM. 31"	3	100 A	ĸ	374 Upor	ál	â				S,		នដូចផ្លួន និនិធី	•		11 24	*1.14	# RX #	ij	£	905	227.400	ed'tis	Đ, C	21.00	180.00	5115,820		
TWG-233	া :: : : : : : : : : : : : : : : : : :	IN AN I WAS A WARRANTE	SECURE CHARLE	SERVICE THREE	RA. Yell	41-408-95065	SACHON" "D"C	95 MITH	1000000 (1) Friends	0.0457.7540	CUSTOMER (2000 KNO) EN	PROJECT 03-E%	N & O STANDARY STANDARY STATESTA	TANGE CONTRACTOR TO DE TANGE CONTRACTOR TO DE	POLICE ALEXANDE	HARVAT POPETS (1988)	4444	67. 38.00k	SKILM TON	LKIRAKE LELE	ASPARCATOR	(Angeler Living)	30' - HRA	WE - 11590	estedad patenta.	31.04.60	LONG TERMINE.	FX	SAMPER PROBLEM	<u> </u>

National Grid <b>N</b> H
<b>DG</b> 08-009
Attachment Tech 2-20(b)
. Page 1 of 3

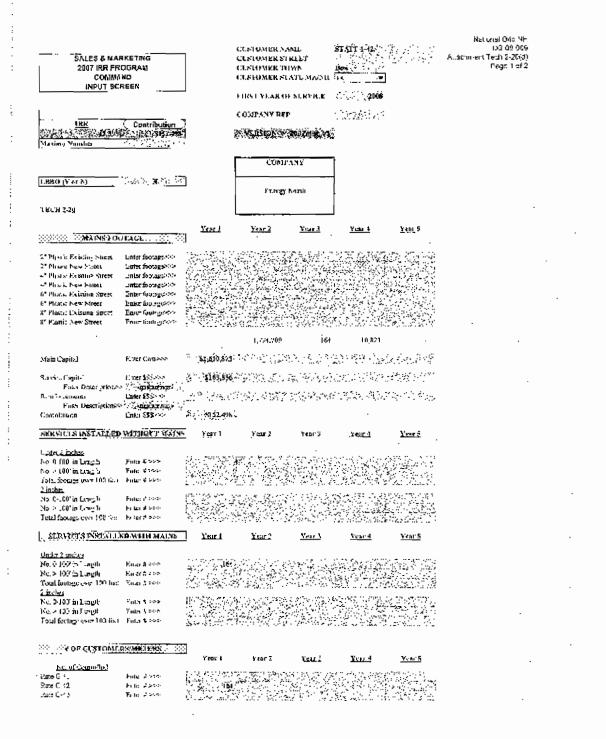
TEGH 2-20		
Staff Dala Request 1-42		
Books to Continu	408	
Requests for Service	166	•
Number of Requests		
Requiring a Contribution	65	
Number of services installed	164	
Number of installations		
requiring a contribution	65	
Total amount of		
Contributions	\$152,498	•
Total Cost of		
Installacions	\$1,809,725	
Estimated Armuel revenues from installations	\$414.756	
nem ii aldiidiloha	\$414170G	
Actual annual revenues from		
installations received in 2007	\$26B,009	
Number of customer		
contribution refunds	С	-
Return on investment		
on forecasted annual		
revenue	13,39%	

WOI SAN					04. (20.54E	SECRETARY AND TOWARDS FROM AND THE SECRETARY WHEN SECRETARY WENT TO SECRETARY SECRETAR	041 AUT 1040				C pile.	Table Alexandra
		305	Ž	Ping	ā	2.2	8163	2	a g	P. 72	XIN.	
77.78f.												
COMPANY INSTITUTAL		3: (40) 22	\$- EC0'533 -\$	24,500,04	35. 82.55	22/901 2	54,133 725	12 KB/133	25, 000,12	5 MS,723	67,000,14	
STORE THOSE		15.00	119,730	91.1	ž	12,21	×	K. (61	Marce.	Richard	92 6	
SEA FOT TORSHE		5	\$244,755	2414,736	× 5	27,73	<b>%</b> LK.85	M2'vivi	15, 1, 15	X	% 7.53	
Set Jil.		×	ē	ş	k	ţ2	×	8	H	8	R	
GROSS TROUTS		1	P. Carlot	10,000	<u>4</u> :: 1	5446,375	34.446	5444.7%	345	54.4,7%	5. 5. 7.	
ATT TELEVISION	111 000	**	7	돼	H	ផ	zł	•	×	s	9	
All Breits	Sur	<b>54</b> 5.33	344,78	34 6,786	į. Š	BE1/41 #3	¥, - 3	87411	# 1. <b>4</b>	2414,641	ğ	
ESPRAPE . S.S SESS.												
10" 2, 027 721	22, 562, 523											
OLET CWEST SERVINGUETH	0000											
FREEDOT CHIMA.	\$ 805,722	и	8	8	<b>.</b> .	Ā	ĸ	ā	4	ş	a	
NA O BUCCHUSTI NOTATION AND THE		838 84.	875 87	9# 8588	27.83 30.	हुई <b>क</b> ं 87-	\$5 20 20 20 20 20 20 20 20 20 20 20 20 20	5.5 19.8	2 T 2 F	1986 1986	# 12 F C	·
HOLESCHER BEST		2 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	98 88 98 88 98 88	45 P. S.		* # Z Z Z	n i s Xáj	115	1 (A) (A)	148°	100	
1074, 877 8468		115,000	10.11	******	144.	r nes	1.5,736	2 2	, c'33;	1 1 1 1	120-25:	
P ROZUG NEWLOW												
ACT		.51'5663	\$237.£37	99.63	7	5275 194	#55/15# #55/15#	1244.000	#/08,24*	40% CHCS	12 v8c*	
INCORE TAX		ž,(12	1400	28 862	E.'15	62.33	126'10 l±	Q41 7 .L.	*115,-1	980(1.1.)	\$-16.42H	
Allow ISh		100	e de la composição de l	124 42.¶	5475,224	2477.910	F187,423	0rl 38:5	\$1,00 to	5477.3	· • • • • • • • • • • • • • • • • • • •	
UEBI FONNEZI		06,20	911148	į	8:0,4,2	21.16	27 07.5	20 50	3X, 62	531.02	\$30 (\$2	
401-403-104		523.25	ë	11.00	183.09)	WE VE	(N)38	QTT/C	50,84	233 TO	120,000	
STERRITO TARRE		1100	MLC.I	2		20.00	47,02	37. 444	54.30	31.0 TK	140,315	
6001-1000	same and same	· 33 550	a a	1177	2 (1115	£ 683	\$15.38	i and	£ X (	A''E''	8467,544	
M31. 4253	(524,443)	\$ 49.220	221 0.29	11.12	2.602	. 44 ***	716, 617	00 A.4	310,000	SE 45.5	110,64	
48 10 10 10 10 10 10 10 10 10 10 10 10 10		0X 2K	22.148	×	4007.743	delite.		7 83	, <b>1</b>	20,000	ECC, 932	
TAKRET		20r R	39 463	8.6		4766	£	20465	59.465	19 17.4	:47:	•
106.6 408.9 340.1		to us	25 A25	31.1	23 15	200.00	535.186	186.30	90 W	e. Ver	211,160	
4:0:	34,401,756	400,457	GC 130	554,34	200'0115	1317.27	62,22	1127673	235.62	*****	485,43	
	1											
TREJECT RIV	E 100											

<b>40.0</b> 3				MARKATAN MARKATAN MARKATAN	THE STATE OF THE S	300 Hg				, i	STATES CALIFORNY STATES CALIFORNY RESIDENTE LY SANS
J	ege.	ij	202	E:	305:	13	302		***	12	
										i	
CANADAR PARENCE	M,811,23	90 37 <b>4</b> 13	14 Mar. 15	16,30	\$21,000.12	51, 885,12	5. 407,729	* 16712	\$22,450.6	24,439,182	
FRED TOTALS	<u>ځ</u>	3	70.5	.E.W.	36.23	82 E8	1.34	3	40,44	27.00	-
PROJECT MARRIE	2444,735	R/3:00	\$ 7 3	14 VIII	844.00	47.4	FH,03	34.4.0	84038	344.74	
THE TOTAL	R	8	ß	*	æ	£	Ľ!	à	#	á	
CHOSEPSONIA	×44,71	344478	X 8.	111	MIN	94-1-28	11744	24.0	100	444,776	
DESTI HERBYC	ন	耳	\$	H	а	쾳	;;	¥	ч	휘	
KET RELOYS	2444,725	R/9182	3.7.7	44.41	Š	20,000	4.724	98,104	3	2414,736	
Karetain selection (SESSE											
Party Colerat											
CLUTCHES SON MICE TON											
Te. Neo concau	2	:;	4	8	Ħ	ā	<u>.</u>	я	u	ş	
A STAN I WE STAN THE STAN I WE WE STAN I WE WE STAN I WE WE STAN I WE WE STAN I WE WE WE WE WE WE WE WIN I WE WE WE WE WE WIN I WE WE WE WE WIN I WE WE WE W	3.7. 2.7.	11 X	1-0-4 1-4 1-4 1-4 1-4 1-4 1-4 1-4 1-4 1-4 1	2 E E	10 to 10 to	888 114	## ##	5 5 5 5 5 5 5 5 5	¥ [ 2	460 A	
CANADAM SALAMAN SALAMA	i i i	3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5	4	15.00 15.00	1 p (1)	# <b>2</b> € 1	11 } 11 12 12 14 15 15 15 15 15 15 15 15 15 15 15 15 15	27.75	100 g	5 % E	
State of Manual deal		2K <sup>1</sup> 83	7	4	*6.20	500/555	<u> </u>	30.1.50	fr us	511,74	
ICHTEASHSE	845 (483	12,217	表現を記	3076	1	F41,154	3	1000	¥	ļš Ž	
Const. Egg, 4-8 pt 1785 1795											
5000	M2.8/29	#1001#	1761,233	/v/100	i.	(a) (supp	310.45	111 003	13.1851	7.44	
X5-19423.8	5. 1206	1.791.1		1471,633	5.2.32	-	NAME OF	11825	2 33.20	11,570	
LF" ACCM"	37.73.866	. X .: . x	3103,054	Contests	5 1770	1	2	44.5 42.3	1376	281,1614	
Deat MONAGA	STATE	221 123	\$20.05	76.76	earline.	000	Ų. H	271.00	21.11	20 P.	-
V0135241/20	41.080	AX: 17.0	1103	11.71	B+775	244 685	927,530	217 515	333.00	11.67	
\$265_37,00000	£.:	4.4.3	\$10.763	511,735	80:H:	J41, K15	¥.	14:01	EC.313	÷	
327. 627	3 31 345	330 (DC#	Maria Ma	2510,435	76 P 10 20 20 20 20 20 20 20 20 20 20 20 20 20	1 2 902 1	Ø. 48	K1010	874.412	(372	•
draffic altern	9.8.6.6	\$30 K	\$50 Mg	4E-338	2617.182	2,146.13	6508,9373	202	297-122	4.4	
HTREST BETWEE	25.55	¥	20.04	1X,232	36/111	Ē.	82,538	37	400.455	100 KG	
TAX EXT.	ŧ	-100	58.5	* G &	\$3.7 11	4) (4	21 - 22	59 487.	1. AD	8976	
LONG TURM DEST	201.00	2 Ā	200,000	22, 63	531 162	î od	60.70	EN.133		45AL162	
ופיו	.6975353	2007422	40000	# 1/4 # 1:1	CEC. 222	419 2622	4	22.00	20.1455	27.74	
ARAITTINE FOL											
お子 いせつが											

SALES & MAR 2007 IRR PRO RESIDENT INPUT SCR	OGRAM TIAL		CLSTOMER NA CLSTOMER SI CLSTOMER G CLSTOMER SI FIRST YEAR O COMPANY SAI	RLEI DYN ATE MA/NH F SERVICE US RUP	SUNDY 1-31 Sow	National G4d NH 200 200 200 200 Page 1 of 2
Haximu Number		9	x 7 900012-6-6-0-1	21171720-11211111		
			COMP	ANY	1	
LEBO (Y or N)	TO NOT NOT BEEN ASSESSED.	3	lithenda	North	•	
TEC II 2-21					_	
l'' <del>origination de</del>	Compose a law	<u>Yearl</u>	<u> Y EUT 2</u>	Year 3	Year 4	Year 5
MAINTOOTSCE	INSTALL IO					
21 Plastin Existing Street 21 Plastin New Street 41 Plastin Existing Street 41 Plastic Existing Street 61 Plastic Existing Street 61 Plastic New Street 81 Plastic Existing Street 81 Plastic New Street	Index inclagation Enter footage to better footage to better fortage to be the footage to be footage to be the footage to be the footage to be the footage to					
			1,273,93†	483	2,638	
Fotal Service Empired	Enter Cost292	4.113,024	026472	ANNEWS (STATE)		
Joni Main Capital	Eula 135>>>	158.907			Palmi	
Enter Doser priem?? Reinfordmens	etganunder Euler ISS				Větaklada	
Ento Description** Contribution	Finter KSSSSS	3.	rin deleni.		National Jan 20	e restructuse ve Juga en agentou
SERVICES INSTACEED	WITHOUT UNALS		Year 2	Yeard	Year 4	Year 5
T1. 3 0 4 - 3				,		
<u>Under 2 inches</u> No. 3-1007 in Length	Eater # ≥>>	18 No. 18 18 18 18 18 18 18 18 18 18 18 18 18				
No. ≥ 1981 in Length	Sales #>>>					
Total frotage over 100 feet. 2 inches	Euco # ***		soyanad	SOLD MAK	vanan kata	N882-3092
No. 0-100 in Cough	Eeta #7998		有双型性多类			
Nis. ≥ 100 in Longilu Potal flootage over 100 feet	Emer# >>> Emer# >>>					
SERVICES INSTAL		Yeur 1	Year 2	Year 3	Year4	Year.5
M. den Mindres						
Trade: 2 <u>ingliga</u> No. 0-160' in Length	Finter 0.2858	A 10 10 10 10 10 10 10 10 10 10 10 10 10	n (villa)	583 S.D.J.		
No. > 100° in Longto	Einter (1906)					
Total footings over 100 feet 2 inches	Linter # 2022	THE PARK AN		Salation (	91.592000 1	All Aller (All

No. 0-100 in Length No. 3-100 in Length Total footage over 100 feet	lenter # 2005 Lenter # 2005 Lenter # 2005					Nh 206 0(c Page 2 of 2
# # # # # # # # # # # # # # # # # # #	JUS METERS	-				
Enter the Number of Motor Conversion On Main Conversion Off Main New Construct XXLs go New Construct XLsage New Construct Angle New Construct Medium New Construct Medium New Construct Small Small Condo Large Condo	4,500 kg feet 3,500 kg feet 3,500 kg feet 1,500 kg ees 1,000 kg ees	<u>Year 1</u>	Vest 2	Year 3	Year 4	Year 5
SHADOW PROFILE	CENTIVES. 1888	<del>_</del> <u>-</u> .			٠.	
Inner Incentive Autoria Pe	et Clistrimer	Year 1	Year 2	Year 3	Year 4	Year 5
RENIDENTIAL Conversion Om Main Conversion Om Main New Crossmuck XXLarge New Construct XXLarge New Construct Large New Construct Medium New Construct Medium New Construct Medium Small Cimida Large Condu	Elect \$48.800 Enter \$48.000 Other \$50.000 Union \$50.000 Enter \$50.000 Enter \$50.000 Enter \$58.800 Enter \$58.800					
Through	augro)	₃ .				
Project Title:				SUNS	MARY GRIEF	IVES:
Project Dosoriptions				TOTAL COMP	ANY IRR	6.36%
CESTOMER	POTENTIALISOM	**************************************		TOTAL COMP	ANY NEV	(\$264,428)
	1300 635 1742 803			тотаі, сомра	ANY INCENTIVE	<b>የ</b> ዕ
	•			COTAL COMPA	ANY CAPITAL	\$1,559,018
				C.STOMER C	ONTRIBUTION	\$12,262
				TOTAL ANNU.	AL MMBTU	45,585
				AVERAGE MA	RCIN/MWATI.	Selvis
		٠.		TOTAL ANNU	41. MARGIN	8203.5913



	Page 4 1005	1.30 Becchine 1		\$ 15 - 1 A . 1 . 1 . 1 . 1 . 1			MAIDOR COMM
.tu G-11	Enter A Sec.	100		(1) (N. N.	Section 1		000 600 000
Ray (NS)	min 4 has	1 112 11 11					Attachment Tech 2-20(c)
Ratio (%)\$3	Kulo 4 see		J. L. Girald				Page 2 of 2
Tata C-54 (4-65)	Into Vision						
© COMMON	MAIRTER CO	<u>&amp;</u>					
Entra in communited authors	e approjule Acco	Year 1	Verse 2	Year ?	Vent 2	Year 5	
Rato (141	Futer Coop	572 (23)		法支持的			
Ratu O-72	Subs #300	389,794	27.7		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A. 1. 1 / 1 / 1	
Ratu IC-13	三面皮 美名公	2	START WILL	Astronomic March		Salar Salar	
Ratu (G=44	三面の一葉ンジン				33.4.3 PM		
Circ (3:51	Battle # DAY	100				5-32 C.	
Lilu (0-52	Enter # 222		医存储定律		1.00		
Mr 0-53	であたっとランツ		n (* 3.07. j.)	The Court of the		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	Faller 6 3329	11 Mar. 12 year					
Mis (3-54 or (3-63	PARTY FIRMS	torum Proc.	- *:.::::: .	or selection in the	E AUTOMORE	. 4.7 ( ) 2 ( ) 2 ( )	
CHSTONER MARK	SIX BER MARIE	٦,					
menta MariaM was	from the Margin 1446	e: [	TRISTST	HE NEW INPUT	SECTION		
		Terri 1	1'en: 2	POST 3	Year 4	Year 5	
SUMMAND		فالمراجع الراماجة	Magnetina in a re	gegen by the programme and the	e englishmen engen sæder		
ate (i=4)	Latter # 3000	11 12 380		12.00		-3:8:0:4:5:	
ль () 42	Linter (f. 800)	32.00	17. April 18.		多数产品基	<b>《文学》</b> 《金》	
ate G 12	Control of the control	<b>一种人类的</b>	·	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	102.00W2	M.C. 11	
ate (i 44	Extend (* >00)	- Marie 1973		800 TO 100 Sec	of 1000 of 1	. * * 2 A*	
ate G of	Carrier & Hotel	177 300	Mark 18 18	ese TANK I			
ate C >2	Egraph Mich	r (80)			4.100.007.3		
ak: G-52	Extend 2002		2000	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		7. W. W. W.	
aki G-54 er (3-6)	En . i i i i i i i	10 S. S. S. S. S. S.		IN 13 (176)			
			AND THE SECTION	e such a man			
Cognomities	MOENTIVES	<u>:</u>			•		
nter incunt -e Al <b>ac</b> ount P	er Custiano						
THE PERIOD OF A SHOOL P		Pr 1	N	31.44.7	None I	L'ann f	
		Yerl	Yest 2	Yest 3	Jeon 4	Year 5	
CADAMAGO		Yert gymanayaya	Yeir 2 Voice State Cons	<u>Year 3</u> No. 800 (1996)	Yeard Sanking Cyre	<u>Vestá</u> NS 01404 6%	
DEMMOND ale G-4.	Cater & 1985	Yert Santagan Malanda	Year 2			Year 4	
054M/IKD aie G.4. age G. 42	Color à 2005 Uniter à 2005	Yerl	Year 2	Yest 3		Year 4	
054,547,N.D ale G-4, ale G-12 ale G-12	Coter à 2005 Enter à 2005 Coter # 2005	Yerl	Year 2			Vest 4	
0.9444/08.3 (ale G.4.) (ale G. 42 (ale G. 42 (ale G. 42	Coter à 2005 Enter à 2005 Coter #2005 Enter #2005	Yeri	Year 2			Year 4	
DEMINICALIS Case G. 42 Case G. 12 Case G. 12 Case G. 14 Case G. 14	Cater & 2005 Later & 2005 Cater & 2005 Uniter (1000) Enter (1000)	Yerl	Year 2			Vest 4	
DEMINION D (aute 61-4) (aute 61-4) (aute 61-1) (aute 61-1) (aute 61-1) (aute 61-1)	Cotec & 2000 Enter & 2000 Cotec & 2000 Enter & 2000 Enter & 2000 Enter & 2000	Year I	Yest 2			Year 5	
00 (4 (4 (4 ))) (a)	Cortex & 2000 Cortex & 2000 Cortex & 2000 Cortex & 2000 Entra & 2000 Fortex & 2000 Fortex & 2000	Vari	Yest 2	¥.		Year A	
0044MCND aue G-4 aue G-12 aue G-12 aue G-1 aue G-5 aue G-62 aue G-63	Cotec & 2000 Enter & 2000 Cotec & 2000 Enter & 2000 Enter & 2000 Enter & 2000	Vari	Yest 2	¥.			·
094(MOND) tate 644, tate 644, tate 644 tate 644 tate 644 tate 644 tate 646 tate 646 tate 646 tate 646 tate 646	Cortex & 2000 Cortex & 2000 Cortex & 2000 Cortex & 2000 Entra & 2000 Fortex & 2000 Fortex & 2000		Year 2	¥.			
0004MOND tate 614. tate 6142 tate 6142 tate 614 tate 615. tate 615 tate 615 tate 615 tate 615 tate 615 tate 615	Coter & 2005 Cuter & 2005 Coter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005		Yest 2				
(1954,MCNN) (aue 6.4.) (aue 6.4.) (aue 6.1.) (aue 6.7.) (aue 6.6.)	Coter & 2005 Cuter & 2005 Coter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005		Year 2	STIM	MZĀV ()FRTRI	नक <b>र</b>	
(1954,MCNN) (aue 6.4.) (aue 6.4.) (aue 6.1.) (aue 6.7.) (aue 6.6.)	Coter & 2005 Cuter & 2005 Coter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005		Year 2		MZĀV ()FRTRI		
OPAMONAD  tate 61-4.  tate 61-4.  tate 61-1.  tate 6-1.  tate 6-52  tate 6-57  tate 6-54 or 5-63  TITE TABLES  respect field	Coter & 2005 Uniter & 2005 Coter	Year 2	STIM	MANY OF REAL	नक <b>र</b>		
OPAMONAD  tate 61-4.  tate 61-4.  tate 61-1.  tate 6-1.  tate 6-52  tate 6-57  tate 6-54 or 5-63  TITE TABLES  respect field	Coter & 2005 Cuter & 2005 Coter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005 Cuter & 2005		Year 2	SIM TOTAL COMP. TOTAL COMP.	MANY OF REAL	17.78°	
(1954)MOND (auc 644, (auc 644) (auc 641) (auc	Coter & 2000 Coter		Year 2	SIM TOTAL COMP. TOTAL COMP.	MARY DERTRI AVERE AVENDO AVENTO	7.778°	
DESIMPING  Case G. 4.  Case G. 42  Case G. 12  Case G. 14  Case G. 52  Case G. 52  Case G. 52  Case G. 53  THT (TODINS)  Case G. 54  Case	Cotec & 2005 Little & 2005 Cotec & 2005 Epite & 2005 Epit		Yest 2	SIME TOTAL COMP. TOTAL COMP. TOTAL COMP.	MARY OF RESE	元が多************************************	
CHAMMON D  Rate G. 4.  Rate G. 4.  Rate G. 1.2  Rate G. 1.2  Rate G. 1.4  Rate G. 1.  Rate G. 6.2  Rate G. 6.	Coter & 2000 Coter		Yest 2	STIME TOTAL COMP. TOTAL COMP. TOTAL COMP. TOTAL COMP. CUSTMARS CO	MARY OF REAL	13 2556 \$545,571 \$11 \$1,809,775 \$152,468	
CONTROL OF THE CONTROL OT THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTRO	Cotec & 2005 Little & 2005 Cotec & 2005 Epite & 2005 Epit		Year 2	STIME TOTAL COMP. TOTAL COMP. TOTAL COMP. CUSTMARS CO	MARY DERTRI AND RE AND NOV AND CARTAL OKTRIBUTON AL MIMBELL	13-2555 \$14-5571 \$11 \$1,809,775 \$157,408 139,776	
CONTROL S Rate G. 4. Rate G. 4.2 Rate G. 4.2 Rate G. 5.1 Rate G. 5.2 Rate G. 5.2 Rate G. 5.2 THE TRANSPORTS Project This	Cotec & 2005 Little & 2005 Cotec & 2005 Epite & 2005 Epit		Year 2	STIME TOTAL COMP. TOTAL COMP. TOTAL COMP. CUSTMARS CO	MARY OF REAL	13 2556 \$545,571 \$11 \$1,809,775 \$152,468	
CONTROL OF THE CONTROL OT THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTRO	Cotec & 2005 Little & 2005 Cotec & 2005 Epite & 2005 Epit		Year 2	STIME TOTAL COMP. TOTAL COMP. TOTAL COMP. CUSTMARS CO	MARY OF REEL AND TRE A	13-2555 \$14-5571 \$11 \$1,809,775 \$157,408 139,776	

# ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH Historical Pension and OPEB Costs

	Annual	over/(under) Prior Year	Percent Change	over/(under)	Percent Change
Year	Expense	Cost	(Prior Year)	Average Cost	(Average)
2003	1,838,061				
2004	2,125,062	287,001	15.61%	(452,841)	-17.57%
2005	3,233,440	1,108,378	52.16%	655,537	25.43%
2006	3,429,161	195,721	6.05%	851,258	33.02%
2007	2,263,793	(1,165,368)	-33.98%	(314,110)	-12.18%
Average	2,577,903	106,433	9.96%		7.17%
Test Year	2,893,617			315,714	12.25%

Costs from Attachment to Data Response Tech 1-31.

# ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH EnergyNorth Updated Computation of Revenue Deficiency

Data Daga Duamagad	Reference	Revised Case Pro Forma
Rate Base Proposed	EN 2-4	149,651,959
Rate of Return	EN 3-1	9.26%
Income Required		13,857,771
Adjusted Net Operating Income	EN 2-2-1A	7,873,068
Deficiency		5,984,703
Tax Effect		1.6814
Revenue Deficiency		10,062,680

#### ENERGYNORTH NATURAL GAS, INC d/b/a NATIONAL GRID NH EnergyNorth Updated Itemized Adjustments

	As Filed	Updates	As Updated		Revised Case
Operating Revenues Occupant Billing Issue	180,859,301		180,859,301	32,072 _	180,891,373
Operation & Maintenance Expenses	159,649,786		159,649,786		159,628,012
Field Collections Costs Pension Burden Adjustment( Audit Issue # 2) Right of Way and Appraisal Fees (Audit Issue #6) Dues and Memberships Reclass of Contributions (miss coding) Advertising Adjustment (Audit Issue #10 and Issue 12) Propane Conversion (Audit Issue #11) Legal for Case #				123,684 (31,284) 90,437 (19,204) (19,435) (79,257) (35,675) (51,040)	
Depreciation Asset Retirement Obligation (Audit Issue #9)	7,770,701		7,770,701	14,803	7,785,504
Amortization	-				
Loss from Disposition of Property	-				
Taxes Other Than Income Taxes Right of Way and Appraisal Fees (Audit Issue #6) Paroll Taxes Capitalized	3,812,960		3,812,960	(4,873) (2,906)	3,805,181
Total Operating Revenue Deductions	171,233,447		171,233,447	(138,434)	171,218,697
Operating Income Before Federal Income Taxes	9,625,854		9,625,854	138,434	9,672,676
State Income Taxes	378,300	(4,872)	373,428	4,034	377,462
Federal Income Taxes	1,425,300	(18,355)	1,406,945	49,864	1,422,145
Total Income Taxes	1,803,600	(23,227)	1,780,373	53,898	1,799,608
Operating Income After Federal & State Income Taxes	7,822,254		7,845,481	(192,332)	7,873,068
Rate Base	148,037,338	1,632,853	149,670,191	(18,232)	149,651,959
Rate of Return	5.28%		5.24%		5.26%
	9.26%		9.26%		9.26%
ShortFall	3.98%		4.02%		4.00%
	\$ 5,886,003	:	\$ 6,013,979		5,984,703
Tax Effect	1.68		1.68		1.6814
Revenue Requirement	9,896,726		10,111,904		10,062,680

## **Educational & Professional Experience**

Mr. Frink graduated from the University of New Hampshire with a Bachelor of Arts degree in Sociology in 1977 and a Masters in Business Administration in 1980. He attended and completed Depreciation Programs sponsored by Depreciation Programs, Inc. at Grand Rapids, Michigan in 1992, 1993, 1994 and is a member in good standing of the Society of Depreciation Professionals since 1994.

In 1981, Mr. Frink worked as a High School Math Teacher in Manchester, New Hampshire.

In 1982, Mr. Frink relocated to Texas and worked as an Auditor for Dallas County. He audited various county departments and performed monthly reconciliations of various fund accounts.

In 1985, Mr. Frink went to work for Schenley Industries, Inc., a wholesale liquor distributor located in Dallas, Texas, where he audited national and international manufacturing plants.

In 1986, Mr. Frink left Schenley to work for the City of Dallas as a Budget/Financial Analyst, where he prepared and monitored budgets, prepared pro forma statements, amortization schedules and performed cash flow analysis. He was promoted to Senior Analyst in 1987.

In 1988, Mr. Frink left the City of Dallas to work for the City of Austin as a Financial Analyst. There he prepared budgets and fiscal impact statements, developed a capital projects tracking and monitoring system, and provided training and technical assistance in the implementation of a new accounting system.

In 1990, Mr. Frink joined the Finance staff of the New Hampshire Public Utilities Commission. Working as a member of the PUC Audit Team, he conducted or participated in audits of the books and records of public utilities. He performed desk audits and determined rates of returns. He prepared schedules and exhibits supporting testimony in dockets involving rate increases and participated in settlement conferences. In 1995, Mr. Frink became a full time Analyst for the Finance Department and in 1996 was promoted to a Senior Analyst position, primarily responsible for analyzing and advising the Commission on issues of depreciation, cost of gas adjustment filings, special contracts, and finance and rate increase petitions. In 1998, Mr. Frink was promoted to Assistant Finance Director. As Assistant Finance Director, he assisted in the direction of all aspects of a department responsible for the audit, analysis and review of public utility financial operations, including financing, rate cases and various utility studies filings related to public utility regulation. In 2001, New Hampshire Public Utilities Commission operations were restructured and Mr. Frink became Assistant Director of the Gas & Water Division and now administers all aspects of regulation of gas utilities.

STEVEN V CAMERINO MCLANE LAW FIRM 11 SOUTH MAIN ST STE 500 CONCORD NH 03301 SARAH KNOWLTON MCLANE GRAF RAULERSON & MIDD PO BOX 459 PORTSMOUTH NH 03802-0459

STEPHEN R ECKBERG OFFICE OF CONSUMER ADVOCATE 21 SOUTH FRUIT ST STE 18 CONCORD NH 03301 ANN LEARY KEYSPAN ENERGY DELIVERY NEW E 52 2ND AVE WALTHAM MA 02451-1127

GARY EPLER UNITIL ENERGY SYSTEMS INC 6 LIBERTY LANE WEST HAMPTON NH 03842-1720 ALAN LINDER NH LEGAL ASSISTANCE 117 N STATE ST CONCORD NH 03301-4407

DAN FELTES NEW HAMPSHIRE LEGAL ASSISTANCE 117 N STATE ST CONCORD NH 03301-4407 THOMAS O'NEILL KEYSPAN ENERGY DELIVERY NEW E 52 2ND AVE WALTHAM MA 02451-1127

ART FREITAS LACAPRA ASSOCIATES 20 WINTHROP SQ 3RD FLR BOSTON MA 02110 SAMANTHA SAARI MCLANE GRAF RAULERSON & MIDD PO BOX 459 PORTSMOUTH NH 03802-0459

ROBERT R GIORDANO 12 COBBLER LANE BEDFORD NH 03110 KEN E TRAUM OFFICE OF CONSUMER ADVOCATE 21 SOUTH FRUIT ST STE 18 CONCORD NH 03301-2429

MEREDITH A HATFIELD OFFICE OF CONSUMER ADVOCATE 21 SOUTH FRUIT ST STE 18 CONCORD NH 03301

RORIE HOLLENBERG OFFICE OF CONSUMER ADVOCATE 21 SOUTH FRUIT ST STE 18 CONCORD NH 03301-2429

Docket #: 08-009 Printed: October 31, 2008

FILING INSTRUCTIONS: PURSUANT TO N.H. ADMIN RULE PUC 203.02(a),

WITH THE EXCEPTION OF DISCOVERY, FILE 7 COPIES (INCLUDING COVER LETTER) TO:

DEBRA A HOWLAND EXEC DIRECTOR & SECRETARY NHPUC 21 SOUTH FRUIT STREET, SUITE 10 CONCORD NH 03301-2429

#### PURSUANT TO N.H. ADMIN RULE 203.09 (d), FILE DISCOVERY

#### DIRECTLY WITH THE FOLLOWING STAFF

### RATHER THAN WITH THE EXECUTIVE DIRECTOR

LIBRARIAN NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

PRADIP CHATTOPADHYAY NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

JIM CUNNINGHAM NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

EDWARD DAMON NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

STEPHEN FRINK NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

RANDY KNEPPER NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

GEORGE MCCLUSKEY NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

#### **BULK MATERIALS:**

Upon request, Staff may waive receipt of some of its multiple copies of bulk materials filed as data responses. Staff cannot waive other parties' right to receive bulk materials.

Docket #: 08-009 Printed: October 31, 2008

DISCOVERY

## PURSUANT TO N.H. ADMIN RULE 203.09 (d), FILE DISCOVERY

# DIRECTLY WITH THE FOLLOWING STAFF RATHER THAN WITH THE EXECUTIVE DIRECTOR

F ANNE ROSS NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

ROBERT WYATT NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

AMANDA NOONAN CONSUMER AFFAIRS DIRECTOR NHPUC 21 SOUTH FRUIT ST, SUITE 10 CONCORD NH 03301-2429

Docket #: 08-009 Printed: October 31, 2008