STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

EnergyNorth Natural Gas, Inc. d/b/a National Grid NH

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Direct Testimony
of
Mark Hirschey

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Mark Hirschey. My business address is 200 Clarendon St., Boston, MA 02116.

Q. By whom are you employed and in what capacity?

A. I am an Associate Partner in the Utilities practice at Oliver Wyman, a subsidiary of the Marsh & McLennan Companies, Inc.

Q. Please describe the nature of Oliver Wyman's business.

A. Oliver Wyman is a leading management consulting firm with more than 2,900 professionals in offices in over 40 cities around the world. Its Utilities practice has completed hundreds of engagements for over 75 of the leading electric, gas, and water utilities across North America and Europe.

Q. Please describe Oliver Wyman's relationship to EnergyNorth Natural Gas, Inc.

A. EnergyNorth Natural Gas, Inc., which I will refer to as National Grid NH or the Company, retained Oliver Wyman to provide an independent assessment of its collections practices and to review the report prepared by Mr. Bruce Gay of the Monticello Consulting Group (the "Monticello Report") on behalf of the Commission staff ("Staff") in the Company's last rate case, DG 08-009.

Q. Please provide your educational and professional background.

A. I received a Bachelor of Arts degree from Dartmouth College in 1993, a Bachelor of Engineering degree from the Thayer School of Engineering at Dartmouth in 1994, and an MBA degree from Harvard Business School in 2000.

My professional experience includes approximately ten years as a consultant for Oliver Wyman (and predecessors) predominately focused on improving the operational and organizational performance of electric and gas utilities. I've also worked for five years in various technology companies related to supply chain and procurement software. During my consulting career to utilities, I have led a broad range of assignments, encompassing:

- Analyzing and improving bad debt collection performance
- Merger and acquisition analysis
- Organizational and performance improvement
- Strategic and business planning

The core of my focus over the last three years has been detailed analysis of customer behavior as it relates to bad debt for electric and gas utilities, and the application of those analyses to assist utilities in improving their collections performance.

Q. Have you previously testified before this Commission or any other utilities regulatory agency?

A. No, I have neither previously testified before this Commission nor before any other utilities regulatory agency.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to discuss the results of the independent assessment of the Company's collections practices that my firm performed. I will first discuss the Company's collections performance relative to Northern Utilities, the other gas utility in the state, and then I will discuss what we have found to be the most significant drivers of the Company's accounts receivable charge-offs. In doing so, I specifically address the points made by Mr. Bruce Gay in the Monticello Report and provide my assessment of the Company's collection practices and performance. My testimony also discusses a number of changes the Company is implementing in its billing and collection process to respond to the increasing upward pressure it has experienced on its charge-off rate.

Q. Why are you focusing on a critique of Mr. Gay's report, given that it was filed in the Company's prior rate case?

A. It is my understanding that, in two recent proceedings—DG 07-050 and DG 08-009—the Commission staff has been critical of the Company's level of uncollectible accounts expense. To review that expense, the Staff hired Mr. Gay. Mr. Gay conducted his own review and critique of the Company's practices on an expedited basis at the end of the Company's last rate case. My understanding is that Mr. Gay's report was provided to the Company only a few days before the

settlement agreement in DG 08-009 was finalized. At that point, there was no real opportunity to respond. Subsequently, National Grid NH decided to engage my company to conduct its own review of the Company's collections processes—both to determine the validity of Mr. Gay's conclusions and recommendations and to determine whether the Company should pursue different or additional changes to its processes. Our review found that the Company's collection practices were reasonable and consistent with general industry practices, although there were certain areas where modification of existing policies and adoption of industry best practices had the potential to improve the Company's collections results. Our review also found that Mr. Gay's analysis was incomplete and was not performed in enough detail to consider several important restrictions, and therefore its conclusions were flawed in important ways. For that reason, my testimony will focus on the results of our review and their significance for the Company's uncollectible accounts expense.

II. BENCHMARKING NATIONAL GRID NH COLLECTIONS PERFORMANCE

Q. In prior proceedings, the Commission staff has used Northern Utilities as a point of comparison. Is it appropriate to simply compare Northern's uncollectible accounts expense to that of National Grid NH?

A. No. The two companies' service territories are very different, and as a result the companies' respective rates of uncollectible accounts cannot be fairly compared.[1]

Q. How does the Company's service territory differ from that of Northern Utilities?

A. The key difference between the service territories of National Grid NH and Northern Utilities is the level of population density. The Company's service territory contains the cities of Manchester and Nashua, by far the two largest cities in New Hampshire, which have populations of approximately 109,000 and 87,000, respectively. These two cities include six zip codes with population densities greater than 2,500 people per square mile. The largest municipality served by Northern Utilities, Rochester, in contrast, has a population of approximately 30,000. Northern Utilities' territory does not contain a single zip code with population density greater than 2,500 people per square mile. Attachment MUH-2 shows the population density profiles of the two utilities.

Q. What is the significance of the difference in population densities between the two companies' service territories?

A. It is common for densely populated, urban areas to have higher charge-off levels than suburban and rural areas. This is certainly evidenced in the case of National

[1] When comparing bad debt expense ratios, it is necessary to consider that National Grid NH's level of uncollectible expense is adjusted to account for the Company's practice of crediting regulatory recoveries to its uncollectible expense account. Reversing the credits results in the Company's 2008 uncollectible rate increasing from 1.7% to 2.7%.

Grid NH by the fact that the six zip codes in the Company's service territory with population density greater than 2,500 people per square mile account for a disproportionately high portion of the Company's charge-offs, despite the fact that its collections policies and practices are uniform across its service territory. The six high density zip codes, which are in Manchester and Nashua, contain 44% of the Company's customers, but account for 70% of its charge-offs. Attachment MUH-3 shows that, once the six high-density zip codes are excluded, the Company's remaining service territory is much more comparable to that of Northern Utilities. 51% of the remaining service territory has between 750 and 2,499 people per square mile, and 49% has fewer than 750 people per square mile. This is similar to Northern Utilities' service territory, of which 37% has between 750 and 2,499 people per square mile and 63% has fewer than 750 people per square mile. You can still see, however, that even with the most densely populated areas removed, National Grid NH's service territory is still somewhat more densely populated than that of Northern Utilities. The low and medium density areas of the Company's service territory have an uncollectible-expense-to-revenue ratio of 1.4%, which is much more comparable to Northern Utilities' uncollectible expense level of 0.8% than the Company's overall level of 2.7%. Thus, differences in population density alone explain a significant portion of the difference between the two companies' levels of uncollectible expense.

Q. Why would population density correlate so significantly with charge-offs?

A. There are likely several factors that contribute to this correlation, and I would like to focus on two which appear to be the most significant drivers. The largest factor that would cause population density to correlate with charge-offs is the relatively high proportion of inside meters in high population density areas, which makes it difficult to access meters in order to disconnect them. In addition, more highly urbanized areas tend to have a higher level of customer transiency, evidenced by the portion of accounts that have been open for less than one year. Customers with accounts open for less than one year are more likely than those with older accounts to terminate their service with unpaid balances. This is supported by both National Grid NH's data as well as my own experience in working with other utilities. Attachment MUH-4 shows that 36% of the Company's charged-off accounts had been open for less than one year, compared with 14% of all active accounts. 72% of charged-off accounts had been open for less than two years, compared to 23% of the Company's accounts overall. There is a strong, positive relationship between population density and both the percentage of accounts with inside meters (Attachment MUH-5) and the percentage of accounts open for less than one year (Attachment MUH-6) among the Company's customers. Attachment MUH-14, although representing the collection activity for a single account, demonstrates well what can occur when the Company attempts to terminate service to a customer with an inside meter. In the case of the customer (a residential heating customer) used in this example, there were several separate attempts by the Company to disconnect the customer's service once the account's arrears reached the eligible threshold. All seven of these attempts resulted in

"CGI" meaning the field collector could not gain access to the account's gas meter. The account finally disconnected voluntarily with an outstanding balance of over $3,400.

Q. Did the Monticello report consider the impact of the differing level of urbanization between the National Grid NH and Northern Utilities service territories?

A. No, it did not.

Q. Are there other flaws in the Monticello report that you have identified?

A. Yes, we identified several flaws in the Monticello report that I will discuss in more detail later in this testimony. A notable flaw was the Monticello report's failure to account for seasonal differences in average gas usage and bill size when estimating the time required for customers to accrue balances as well as its overestimation of the opportunity represented by late stage debt sales by as much as 16 to 20 times.

Additionally, there are several significant drivers of the Company's charge-offs that the Monticello report improperly dismissed, such as inside meters, payment agreements and the industry-standard practice of limiting service disconnections of residential heating customers during the winter. By ignoring the impact of these limitations on field disconnections, the Monticello report greatly overstated the benefit associated with them.

1 **III. LIMITS ON FIELD DISCONNECTIONS**

2 **Q. Do you believe that the Company's service disconnection practices have been**
3 **prudent?**

4 A. Yes, I do. I am familiar with industry practices regarding account establishment,
5 billing and collections, and National Grid NH's practices in this regard were
6 reasonable compared to utility industry practice. There is always room for
7 improvement, and I will discuss the Company's proposed enhancements to its
8 collections process later in my testimony, but I am comfortable that the higher
9 charge-offs that National Grid NH has been experiencing compared to Northern
10 do not result from a failure to implement industry-standard practices.

11

12 **Q. How do you reconcile that with the fact that, as Mr. Gay observed, many**
13 **accounts were not disconnected until they had balances well in excess of**
14 **$1,000?**

15 A. The Monticello report repeatedly referenced the Company's high balance
16 accounts and simply and erroneously concluded that, given average monthly bills
17 of $100, "it would have taken 10 months of non-payment for the average
18 customer to reach a balance of $1,095 and nearly 17 months to reach a balance of
19 $1,673." (The figures referred to by Mr. Gay are for arrearages associated with
20 specific customer accounts.) Although it is true that the Company's average
21 monthly residential heating bill in 2006 was approximately $100, it would be
22 incorrect to assume, as Mr. Gay's statement implies, that customers' bills are flat

over the course of the year. Attachment MUH-7 shows that the value of residential heating bills is heavily concentrated in the winter months – particularly February and March – when average single family heating bills are $239 and $229 respectively. This is approximately 7.5 times higher than the average summer gas bill, which is just $31 in the month of August. Given the fact that gas usage is concentrated in the winter, it is possible to accrue balances of $1,000 or more in just a few months during the winter, a time when the Company does not disconnect service because of customer safety and health concerns. Attachment MUH-13 illustrates a residential heating account, in service since 2008, was not eligible for field disconnection at the beginning of the 2008-09 winter period, but nonetheless accrued a balance of $1,360 before the Company was able to terminate service in May 2009. Thus, Mr. Gay's criticism of the Company for waiting too long to terminate service to customers with high bills is based on incomplete analysis.

Q. What do you believe is the most appropriate measure of the Company's field disconnection performance?

A. Given the practical and other limitations on the Company's ability to disconnect customers during the winter and the need to comply with applicable rules relating to the timing of disconnection of service, it is not an accurate measure of performance to look at the total time between an account becoming past due and its ultimate disconnection. The two most significant limitations on the Company's ability to more quickly disconnect customers are its policies of not disconnecting

customers within the first 60 days after their accounts become past due and not disconnecting residential heating customers between November 15th and March 31st. The Company has operated over the past several years in New Hampshire with the understanding that field disconnections were not permitted by the state's regulations within 60 days of an account becoming past due, which the Company believes to be a reasonable waiting period in order to give customers an opportunity to pay their balances before facing the extreme measure of field disconnection. Given these limitations on field disconnection, one must look at the "actionable time," not the total time, between a customer becoming past due and their ultimate disconnection when evaluating the Company's field collections performance. We evaluated the "actionable time" for each account as the time between the date an account became 60 days past due using the last payment date and the date the account was acted upon, excluding the time during the winter no-cut period.

We analyzed the time for disconnection on an account-level basis among the population of charged-off customers from 2006, the same population that Monticello used in its analysis. Attachment MUH-8 shows that, although customers on average were disconnected 4.9 months after the customer's last payment, 3.2 of those months were lost to the two limitations described above. This means that just 1.8 of those months were "actionable months," time when the Company could reasonably have been expected to disconnect the customer. The actionable time was 1.3 months for customers with outside meters and 2.2 months

for customers with inside meters. Given my experience working with other utilities throughout the United States, I believe that a delay of 1.8 months of actionable time before disconnection is both reasonable and indicative of prudent field disconnection practices.

Q. Do you believe that, as suggested by Mr. Gay, insufficient levels of field disconnections were a significant contributor to the Company's charge-offs?

A. No, I do not. The disconnect threshold was established at $500 for the period that Mr. Gay analyzed in his report. As discussed later in this testimony, the Company's $500 threshold was based on the fact that accounts with balances greater than $500 represent both a significant majority of outstanding arrears and represent a significantly greater credit risk, as measured using the Company's internal credit index score. Based on those considerations, the threshold was reasonable. Given this threshold, additional field activity would not have had a significant impact on charge-offs. Even if the Company had lowered its threshold – something it did last year – the impact of the change on charge-offs would not have been nearly as great as implied by Mr. Gay. This is because the Company's charge-offs are primarily driven by factors that would not be affected by increased field terminations, including inside meters, the winter termination restrictions, customer transiency, and payment agreements. We performed an account-level analysis of the impact of reducing the Company's disconnection threshold from $500 to $125, and estimated its value during the test year of July 2008 through June 2009 to be between $595K and $882K (Attachment MUH-17). This is

equivalent to 11% to 17% of the Company's actual net charge offs of $5,184,000 during the period and is significantly less than the $2,900,000 opportunity Mr. Gay estimated to be associated with increased field terminations.

IV. ADDITIONAL DRIVERS OF BAD DEBT

Q. What do you believe are the most significant drivers of the Company's charge-offs in New Hampshire?

A. I believe that, although there are many contributing factors to the Company's charge-offs, the most significant are meter accessibility, winter disconnection limitations, customer transiency and payment agreements. They are largely outside the Company's control.

Q. Can you please describe how you think meter accessibility contributed to the Company's charge-off performance?

A. Despite the Monticello Report's claim to the contrary, inside meters are a significant driver of the Company's charge-offs. The Monticello Report based its claim on the fact that 53% of charged-off accounts in 2006 had meters located outside. The more relevant metric, however, is the fact that inside meters represent a disproportionately high number of charged-off accounts. Attachment MUH-12 shows that, although just 26% of the Company's current customers had inside meters, those customers accounted for 54% of the Company's arrears. Furthermore, 47% of charged-off accounts in 2006 had inside meters, and they

accounted for 54% of overall charge-offs. Not surprisingly, inside meters are such a significant driver of the Company's bad debt because of the difficulty field collectors have in gaining access to premises that have them. Disconnecting these customers typically requires multiple field visits spread across several weeks or months. This gives customers with inside meters the opportunity to accrue larger balances, on average, than customers with outside meters. This also increases the probability that when a customer moves or leaves as a customer, they have an outstanding balance that does not get paid, explaining the higher portion of charge-off accounts with inside meters. When combined with the effects of the winter disconnection limitations, accounts with inside meters can accrue balances in excess of several thousand dollars, as illustrated by Attachment MUH-14. The Company attempted to disconnect the customer shown in that example seven times over the course of two years before the customer voluntarily disconnected with a $3,500 balance. Overall, just 48% of customers with inside meters were successfully disconnected during their first field visit in 2009, compared to 85% of customers with outside meters. It took an average of 2.7 visits to successfully disconnect customers with inside meters, compared to 1.3 visits to disconnect customers with outside meters.

Q. Are inside meters evenly distributed across the Company's service territory?

A. No, they are not. Attachment MUH-3 shows that inside meters are highly concentrated in the densely-populated cities of Manchester and Nashua. In these cities, 38% of customers have inside meters, compared to 13% of customers

elsewhere in the Company's service territory. As discussed earlier in this testimony, this is a significant contributor to the high levels of charge-offs that come from these areas.

Q. Can you please describe how you think the winter period disconnection limitations contribute to the Company's charge-off performance?

A. The limitations on the Company's ability to disconnect residential heating accounts between November 15th and March 31st arise at exactly the same time that heating customers, who generate the vast majority of charge-offs, are accruing their highest bills. Because of this combination of high monthly bills and limitations on disconnecting customers, 61% of the Company's charge offs are accrued during these 4.5 months, as shown in Attachment MUH-9.

Q. Could the Company reduce the amount of charge-offs accrued during the winter by increasing its disconnection activity in advance of this period?

A. No, there is little the Company could do to reduce the level of charge-offs accrued during the winter. Exhibit MUH-9 shows that just 15% of all charge-offs, $0.59M, were eligible to be disconnected at the beginning of the winter period. Of the accounts that were eligible to be disconnected at the beginning of the winter, 56% of the accounts had had at least one unsuccessful field visit during the previous cut season. In these instances, the Company had attempted to disconnect the customer in advance of the winter, but was unable to gain access to the customers' premises. This indicates that increased field disconnection activity

would have done little to reduce the amount of charge-offs accrued during the period when disconnection limitations were in effect. Attachment MUH-13 illustrates this problem in the context of a specific account. This residential heating account, in service since 2008, was not eligible for field disconnection at the beginning of the 2008-09 winter period, but nonetheless accrued a balance of $1,360 before the Company was able to terminate service in May 2009.

Q. Is a policy of not disconnecting residential heating customers in the winter consistent with industry practice?

A. Yes. The Company's policy of not disconnecting residential heating customers in the winter is consistent with standard industry practices in northern states. In my experience, most utilities in northern climates, where temperatures reach freezing levels in the winter, do not disconnect residential heating customers in the winter. Utilities that do disconnect residential heating customers in the winter do so in an extremely limited fashion. Utilities typically have policies prohibiting the field disconnection of residential heating customers during the winter out of concern for the customers' safety and health. The protection is particularly important for low-income and elderly customers, who often have the most difficulty getting their service reestablished.

Although New Hampshire's regulations do not explicitly require a winter moratorium as do those of many other states, it is the Company's policy not to disconnect customers between November 15th and March 31st. As discussed

earlier in this testimony, the Company has this policy primarily to protect the health and safety of its customers. Additionally, regulatory restrictions on field disconnections are exceptionally burdensome during the winter, and as a result it is normally impractical to proceed with a service termination during that time. It is my understanding that the Commission staff has periodically asked for the Company's cooperation in not terminating service during the winter months.

Q. Please describe how you think payment agreements contributed to the Company's charge-off performance.

A. Accounts entering payment agreements can avoid disconnection for several months, allowing them to accrue higher balances. Once a customer enters a payment agreement, the first installment is typically due 30 days after the down payment is received. As I noted earlier, it is the Company's policy not to disconnect accounts within 60 days of becoming past due. This means that a customer cannot become eligible for field disconnection until 90 days after entering the payment agreement, even if the customer never pays a single installment. Once this is combined with the effect of the limitations on winter disconnections, many accounts can delay field eligibility by six months or longer simply by entering a payment agreement just before or just after the winter. Although customers are required to make a down payment in order to establish a payment agreement, the down payments are typically just 50% or less of a customer's outstanding arrears balance. 24% of accounts charged-off in 2009 had previously been on a payment agreement, and the median value of those payment

agreements was $855. For a specific account example, Attachment MUH-15 illustrates a customer that was disconnected with a $1,400 balance, which was the first opportunity that the Company had to disconnect the customer given the restrictions outlined above. The customer paid an initial amount on the payment agreement to have service restored and continued to accrue a balance for four more months before the Company could terminate service again when the customer still had a $1,425 balance.

V. COLLECTION PROCESS ISSUES DISCUSSED IN THE MONTICELLO REPORT

Q. Do you agree with the Monticello Report's criticism of the Company's strategy of focusing its disconnection activity on accounts with balances greater than $500?

A. No, I do not agree with the Monticello Report's criticism of the Company's strategy of focusing its disconnection activity on accounts with balances greater than $500. Attachment MUH-16 shows that these accounts represent 71% of outstanding arrears and have a substantially worse credit risk profile than accounts with balances less than $500. In evaluating the accounts' credit risk, we examined the Company's internal credit risk scoring system, which calculates scores based on customers' payment, credit action, payment agreement, and disconnection activity histories. The credit risk scoring system has been in place since before 2006, and the elements used to determine its scores are standard parameters in the industry for determining customer risk. Focusing on high value

accounts, the ones which represent both the greatest arrears and the greatest credit risk, is a prudent strategy that is consistent with industry best practices.

Q. Could you please discuss the opportunity represented by late-stage debt sales?

A. The Monticello Report cited the Company's failure to sell its aged arrears to third parties as a significant opportunity to recover a portion of its bad debt and reduce its charge off rate. The Monticello Report cited "market prices" for charged-off accounts between 300-720 days old of 2.5% to 4.5%. The Company has actually made efforts to engage a third party to collect its older arrears, however, and its experience belies the assertions in the Monticello Report. The Company's solicitation of third parties to provide these services indicates that Mr. Gay significantly overstated by as much as 16 to 20 times the size of the opportunity to generate revenue by selling these accounts. Specifically, in 2008, National Grid solicited bids from external debt collection agencies for fully charged-off portfolios. It received bids that ranged from 0.15% to 0.22%, nowhere close to the 2.5% to 4.5% suggested by Mr. Gay. The debt that National Grid was selling was, on average, about twice the age of the debt quoted by the Monticello Report, but that difference alone cannot fully explain the significant difference between the Monticello Report's estimated "market rate" and the actual RFP responses received by the Company. Had National Grid decided to go ahead with the debt sale, it would have recovered between $7,091 and $10,399, depending on the

offer it had accepted. This does not represent a major opportunity to reduce its net charge-offs.

VI. IMPACT OF PLANNED COLLECTIONS INITIATIVES

Q. Are there other opportunities to reduce the Company's level of charge offs?

A. Yes, there are. Although the Company's past practices were consistent with industry standard practices, there are opportunities for the Company to take a more aggressive or more creative approach to collections. My understanding is that the Company in fact has intensified its collections efforts and has specific plans to further those practices. Ms. McCarthy's testimony discusses those plans in more detail, but I have attempted to forecast the impact of these initiatives on charge-off levels.

Q. Could you please identify each of the planned initiatives and provide your estimate of the potential impact on charge-offs?

A. National Grid NH has planned or implemented six initiatives to mitigate the upward pressure it has been experiencing on charge-offs: (1) lowering the termination threshold from $500 to $125, (2) instituting deposit collection for eligible new accounts, (3) implementing the use of a replevin process, (4) expanding HEAP coverage, (5) employing behavioral scoring to customize the collections process, and (6) tightening the account initiation process. I estimate that successful implementation of these initiatives could reduce net charge-offs by

between $1.1M and $1.8M in total and could reduce gross charge-offs by between $1.3M and $2.1M.

Q. Could you please describe how you reached your estimated net charge-off reduction of $1.1M to $1.8M?

A. We evaluated each of the opportunities by analyzing account-level data from the test year of July 2008 through June 2009. We estimated how each of the initiatives would have affected the population of charged-off accounts in three scenarios with varying degrees of aggressiveness. Under the most conservative assumptions, we believe that the initiatives could together reduce test year charge-offs by $1,143K. Using moderately aggressive assumptions, in what we believe to be the most likely scenario, the initiatives would reduce charge-offs by $1,488K. Using the most aggressive assumptions, the initiatives could reduce charge-offs by up to $1,806K. Attachment MUH-17 provides a detailed breakdown of the opportunity associated with each of the initiatives in each of the scenarios.

Q. Please elaborate on your methodology for estimating the impact of each of the initiatives.

A. Our methodology was as follows:

1. Disconnection threshold reduction: To determine the benefit associated with this initiative we examined each account in the test year charge-offs and estimated

its prospective charge-off value had a lower cut threshold of $125 been in place using the following criteria:

- For accounts that were charged-off for less than $125, the prospective charge off level was equal to the actual charge off value.
- For accounts that were charged-off for greater than $125, a prospective charge -off value was found using the account's arrears balance two months after the account's arrears balance first reached $125. This two month lag time was used to represent the average actionable time it takes for the field to disconnect an eligible account. This lag time was extended to include the time an account accrued arrears during the winter disconnection limitation period if applicable based on its date of reaching the $125 threshold.
- If the account had been cut successfully on a field crew's first attempt, then it was assumed that had the $125 threshold been in place, the account's charge-off value would have been fully reduced to this prospective value.
- If the account either had a previous CGI (could not get in), meaning a field crew was not successful in its attempt to cut the account, or if the account had voluntarily closed, then it was assumed that the account might not have been successfully cut at this prospective value.
- Success rates of 35%, 50%, and 65% were used to calculate charge-off values for the low, medium, and high savings models.

2. Deposit collection: We estimated the impact of this initiative by identifying specifically which accounts would have been affected by it during the test year.

- Any charge-off account that was open for less than one year was assumed to have paid a deposit upon opening the account.
- The value of the deposit represented twice the average bill from the high-use months (excluding the highest-use month). This value equaled $314 for a heating account and $79 for a non-heating account based on gas bill data from 2007.
- For accounts that charged-off for a value less than the total value of the deposit, the remainder of the deposit value was assumed to have been returned to the customer.
- Because New Hampshire regulations only require 50% of the deposit to be paid in order to initiate service, the percentage of deposit received by the Company was varied in the low (50%), medium (75%), and high (100%) savings scenarios.

3. Replevin program: Replevin involves using the courts to obtain an order allowing the Company to enter a customer's premises to disconnect its meter. The impact of this initiative was calculated by examining the effect of instituting replevin on actual accounts that would have been eligible. We also used data from a similar National Grid program that is currently in place in Massachusetts.

- Any account that had two previous CGI's and had reached an arrears balance of $1,000 was considered eligible for replevin.

- 25% of accounts were assumed to have paid an average of $800 after being notified that the replevin process had been initiated. These accounts would not have required a field visit.
- Eligible accounts that did not make a payment were assumed to have been visited 74 days after becoming eligible. This creates a prospective charge-off value equal to the account's arrears balance 74 days after it reached the $1,000 threshold. 25% of accounts were assumed to "self-cure."
- Some accounts were assumed to have requested that service be reconnected after being disconnected. The percentage of accounts that were assumed to make a payment to reconnect service within 30 days was varied at 20%, 25%, and 30% in the low, medium, and high scenarios. The value paid to reconnect service was 72% of the outstanding balance. These percentages were applied to the value of the prospective charge off value to calculate the savings from instituting the replevin program.

4. Expand HEAP coverage: Unlike the other programs, there was not enough information available to identify the particular accounts that would have been eligible for the HEAP program, so calculations were done at a population level rather than at an account level.

- Based on data collected by Infonet USA, the percentage of HEAP eligible accounts among the population of charged-off accounts was 25%.
- The percentage of eligible customers signed up in the program was varied in the low, medium, and high scenarios at 55%, 63%, and 70%.

- HEAP customers pay 14% less per unit of heat used. Therefore charge off value of new customers was reduced by 14%.
- HEAP customers receive an annual grant of $500 that is paid directly to the Company.
- An estimated 10% of accounts change their payment behavior because bills are lower. By staying current, these customers reduce their charge-offs to zero.

5. Behavioral scoring program: We estimated the impact to write-offs on an overall population basis. We assumed an overall reduction to charge offs of 1%, 2%, and 3% in the low, medium, and high scenarios, respectively.

6. Account initiation: The account initiation program will prevent customers from opening a new account if it is discovered that the customer has an outstanding arrears balance. To estimate the impact of such a program, we analyzed account level information with additional data from Experian, a global credit information company.

- We used Experian data to identify customers who established service at a premise where they had been a resident while a previous, unpaid balance was accrued. Using Experian's data, we calculated a "hit rate" representing the proportion of new accounts at premises with outstanding balances for which the account holder had previously been a resident at the premise. These customers were engaging in what is often referred to as "name switching."

- There were 7,089 accounts in the test year that were opened at premises where the previous occupant still had an outstanding balance. This number was multiplied by Experian's "hit rate" to find the number of charge-off accounts in the test year that had opened a new account while having an outstanding arrears balance. This totaled 64 accounts.
- We assumed that the Experian match only caught 75% of the guilty accounts.
- The average value of the write off due to a customer attempting this fraud was found from the data set matched to the Experian results. It equaled $1,121.63.
- It was assumed that not all customers would be caught by the account initiation program put in place. A catch rate of 65%, 80%, and 95% was used in the low, medium, and high scenarios.
- The total savings from the program would arise from customers paying off their past arrears in order to reconnect service. The percentage down for reconnection was varied at 50%, 75%, and 100% in the low, medium, and high scenarios.

Q. Earlier you said that the Company's use of a $500 termination threshold was prudent and consistent with standard industry practices. If that's the case, why has the Company reduced the threshold to $125?

A. All utilities make tradeoffs between expending field resources to terminate customers with past-due balances, and allowing customers the opportunity to pay their past due balances before this last resort measure must be deployed. Utilities must also balance the various pressures of customer advocacy groups who often

1 try to push for customer leniency, and the desires of the governing commissions
2 that vary across jurisdictions and often change from year to year. Given these
3 factors as well as the Company's need to balance resources, National Grid NH
4 had been prudent in focusing disconnection activity on the highest balance
5 accounts, those representing both a substantial majority of arrears as well as the
6 highest credit risk. In 2009, after understanding the Commissions desire to be
7 more aggressive with customer terminations to lower bad debt at the expense of
8 customer leniency, the Company increased the number of field collectors it
9 employs in New Hampshire. This increased capacity enabled it to begin
10 performing field disconnections on accounts with balances as low as $125.
11
12 As I discussed earlier in this testimony, we expect this increased field
13 disconnection activity to reduce the Company's net charge-offs by between
14 $595K and $882K. While this is clearly represents an opportunity, one which the
15 Company is in the process of leveraging, its size is much smaller than the $2.9M
16 estimated by Mr. Gay. The reason for this is that Mr. Gay did not consider the
17 significant limitations on the Company's ability to disconnect customers, such as
18 inside meters, payment agreements and winter disconnection limitations. As Mr.
19 Gay represented in his report, accounts with balances with <$500 accounted for
20 62% of charge-off accounts with an average balance of $169, representing only
21 18% of charge-off dollars. The real charge-off driver are from the 38% of charge-
22 off accounts with balances >$500, an average balance of $1,217, representing
23 82% of charge-offs dollars. As identified earlier, this latter group of accounts

grows such large balances because of other restrictions, not because of termination thresholds or insufficient field activity.

Q. Doesn't the fact that the Company had not previously implemented these initiatives undermine your previous statement that the Company's collections practices are prudent?

A. The fact that opportunities for improvement remain does not indicate that the Company's past collections processes were deficient. As part of our work analyzing the Company's collections processes, the Company asked Oliver Wyman to identify best practices or other ways the Company could improve its practices given the exogenous forces that are adversely affecting its charge-offs. Best practices by their very nature often go beyond industry standard or prudent practices. All utilities have some opportunity to improve collections performance and further reduce charge-offs. I would also like to emphasize that, even taking into account our estimated improvements of $1.1M to $1.8M, for the reasons discussed earlier in my testimony, the Company would not be able to achieve a level of charge-offs-to-revenue comparable to that of Northern Utilities. Even under the most aggressive possible assumptions, it would similarly be unable to achieve the Monticello Report's recommendation of a charge off to revenue ratio of 1.31%.

Q. How long after the implementation of these initiatives do you expect it to take before their full benefits are realized?

A. We expect the initiatives' full charge off reduction benefits to be fully realized by the third year after their implementation. This is due to the fact that most of them function by preventing charge-off balances from being accrued in the first place, rather than by attempting to increase bad debt recoveries. Some of the initiatives – the one to lower the disconnection threshold in particular – will lead to increased terminations in the near term.

Q. In the last National Grid NH rate case, Staff took the position that the Company's uncollectible rate should be reduced from its actual level for purposes of setting the Company's rates. What are the consequences of making such a change?

A. If, as the Staff asserted in the last rate case, one were to assume that the Company's level of uncollectible accounts could have been reduced by disconnecting non-paying customers sooner, it would also be necessary to recognize that the Company would not have booked the additional revenues associated with continuing consumption by those customers. In other words, had the level of write-offs been lower than what the Company actually experienced, the customers whose service was terminated sooner would have consumed a correspondingly lower amount of gas and, therefore, the Company's reported level of sales would have been lower. Under that scenario, the billing determinants used to set the Company's revenue requirement would need to be adjusted accordingly. What that adjustment should be and how it would be calculated are not matters that I am addressing at this time because, as I have

1 noted above, I believe that the level of uncollectible accounts experienced by the
2 Company reflects prudent efforts on its part and therefore the full amount should
3 be included for ratemaking purposes.
4
5 **VII. <u>CONCLUSION</u>**

6 **Q. Does this conclude your testimony?**
7 A. Yes, it does.

Uncollectible Expense / Revenue
National Grid NH and Northern Utilities

	2002	2003	2004	2005	2006	2007	2008
National Grid NH	2.40%	2.60%	2.10%	3.00%	2.20%	2.70%	2.70%
Northern Utilities	1.10%	1.10%	0.90%	0.80%	1.00%	1.00%	0.80%

Source: SNL database

Service Area Population Density Profiles
Percentage of zip codes by population density, 2009

Source: National Grid NH company data

New Hampshire Service Area Profiles

National Grid NH grouped by population density compared to Northern Utilities, 2009

	National Grid NH (Overall)	National Grid NH (High Density[1])	National Grid NH (Low/Med Dens.[1])	Northern Utilities
Description	▪ Entire NG NH territory	▪ 6 zip codes in Manchester and Nashua	▪ All remaining NG NH territory	▪ Entire NU territory
Customers	▪ 82,513	▪ 36,085 ▪ 44% of total	▪ 46,428 ▪ 56% of total	▪ 26,695
Population Density Profile[1]	▪ 28% Low ▪ 29% Med ▪ 44% High	▪ 100% High	▪ 49% Low ▪ 51% Med	▪ 63% Low ▪ 37% Med
% Inside Meters	▪ 24%	▪ 38%	▪ 13%	▪ Not available
% Accounts Open <1 year	▪ 11%	▪ 15%	▪ 8.5%	▪ Not available
Uncollectible% of Revenue	▪ 2.7%	▪ 4.3%	▪ 1.4%	▪ 0.8%

Notes:

1 Low Density defined as <750 people per square mile
Medium Density defined as 750-2,499 people per square mile
High Density defined as 2,500 to 5,000 people per square mile

Source: U.S. Census, National Grid NH company data, SNL database

Profile of Charged Off Accounts by Account Age
% of total accounts by account age bucket, 6/30/2009

Note: Charged off accounts includes accounts charged off between 7/1/2008 and 6/30/2009. All accounts includes account age as of 6/30/2009.
Source: National Grid NH company data

Meter Location v. Population Density
New Hampshire zip codes

% Accounts Open <1 Year by Population Density
New Hampshire zip codes, weighted by # accounts, 2009

Note: Includes National Grid NH service territory only
Source: NG NH company data & U.S. Census

Average Monthly Customer Bill
Heating accounts only, 2007

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Single Family	$36	$86	$195	$186	$239	$229	$158	$87	$46	$36	$31	$32
Multi Family	$246	$556	$1,224	$1,224	$1,492	$1,532	$1,002	$616	$306	$283	$179	$190
Non-Residential	$170	$430	$1,041	$1,052	$1,374	$1,337	$905	$462	$211	$170	$131	$132

Source: National Grid NH company data

Average Account Dwell Time Before Termination
2006 NH residential charge off accounts

Source: National Grid NH company data
Note: First 60 days less than two months due to overlap between the 60 days and the winter. Overlap is included in the winter no-cut period.

Charge Offs by Time of Year Accrued
National Grid NH, CY 2006

Source: National Grid NH company data

Charge Off Cut Eligibility at Beginning of No-Cut Season
2009 Charge offs, $3.98M total

Source: National Grid NH company data

Proportion of Accounts Receiving Unsuccessful Field Visits During the Previous Year

Accounts eligible for cut on 9/15/2008

Source: National Grid NH company data

Inside vs. Outside Meters
Residential accounts, 2006

26%	54%	46%	54%	Inside meters as % of total

Note: 2009 data used for overall # of accounts and arrears
Source: National Grid NH company data

Chronology of Arrears Accrual, Example
Residential heating account

Source: National Grid NH company data

Chronology of Arrears Accrual, Example
Residential heating account with inside meter

Note: CGI = Can't Get In
Source: National Grid NH company data

Chronology of Arrears Accrual, Example
Residential heating account with payment agreement

Source: National Grid NH company data

 # Accounts Segmented by Credit Index Profile and Balance Bin
Active New Hampshire accounts with arrears balances, 2009

% Accounts Segmented by Credit Index Profile and Balance Bin
Active New Hampshire accounts with arrears balances, 2009

	Account Balance Bin			
Credit Index	< $500	$501-$1,000	$1,001-$1,500	> $1,501
0-20	20%	2%	1%	1%
21-40	18%	6%	3%	1%
41-60	29%	14%	6%	3%
61-80	15%	17%	11%	5%
> 81	18%	62%	80%	89%
Avg. Index Score	48.9	86.5	99.7	107.6
% of Arrears	29%	28%	16%	27%

Source: National Grid NH company data

Estimated Benefits of Planned Charge Off Reduction Initiatives – Gross Charge Offs
New Hampshire, July 2008-June 2009

Initiative	Units	Conservative Scenario	Likely Scenario	Aggressive Scenario
Lower Cut Threshold	$K	$693	$863	$1,028
Require Deposits	$K	$271	$381	$476
Increase Replevin	$K	$256	$253	$250
HEAP Penetration	$K	$9	$94	$168
Behavioral Scoring	$K	$81	$106	$131
Account Initiation	$K	$21	$35	$51
Total	**$K**	**$1,331**	**$1,733**	**$2,104**

Estimated Benefits of Planned Charge Off Reduction Initiatives – Net Charge Offs
New Hampshire, July 2008-June 2009

Initiative	Units	Conservative Scenario	Likely Scenario	Aggressive Scenario
Lower Cut Threshold	$K	$595	$741	$882
Require Deposits	$K	$233	$327	$409
Increase Replevin	$K	$220	$218	$215
HEAP Penetration	$K	$8	$81	$145
Behavioral Scoring	$K	$69	$91	$112
Account Initiation	$K	$18	$30	$44
Total	**$K**	**$1,143**	**$1,488**	**$1,806**

Source: Oliver Wyman analysis