BEFORE THE

NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

Re.	**:**	
	:	
ENERGY NORTH NATURAL GAS, INC.	**:**	**Docket No. DG 10-017**
d/b/a National Grid New Hampshire	**:**	
	:	

DIRECT TESTIMONY AND EXHIBITS OF

ROGER D. COLTON

ON BEHALF OF

Pamela Locke
Concord, NH

October 22, 2010

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Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is Roger Colton. My address is Fisher, Sheehan & Colton, Public Finance and General Economics, 34 Warwick Road, Belmont, Massachusetts, 02478.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am a principal in the firm of Fisher Sheehan & Colton, Public Finance and General Economics of Belmont, Massachusetts. In that capacity, I provide technical assistance to a variety of federal and state agencies, consumer organizations and public utilities on rate and customer service issues involving telephone, water/sewer, natural gas and electric utilities.

Q. FOR WHOM ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of Pamela Locke. Pamela Locke is a low-income residential natural gas customer of National Grid New Hampshire.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL BACKGROUND.

A. I work primarily on low-income utility issues. This involves regulatory work on rate and customer service issues, as well as research into low-income usage, payment patterns, and affordability programs. At present, I am working on various projects in the states of New Hampshire, New Jersey, Pennsylvania, Illinois and Colorado as well as in the provinces of Ontario and Manitoba. My clients include state agencies (*e.g.*, Pennsylvania Office of Consumer Advocate, Maryland Office of Peoples Counsel, Illinois Attorney General's Office, Iowa Department of Human Rights), federal agencies (*e.g.*, U.S. Department of Health and Human Services), community-based organizations (*e.g.*, Coalition to Keep

Indiana Warm, The Energy Project [Washington State]), and private utilities (*e.g.*, Entergy Services, Citizens Gas and Coke Utility, Xcel Energy). In addition to state- and utility-specific work, I engage in national work in the United States and Canada. For example, I was part of a team that recently completed a national study of the responses of water utilities to the payment troubles of residential customers for the American Water Works Association Research Foundation. In 2007, I was part of a team that performed a multi-sponsor public/private national study of low-income energy assistance programs.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.

A. After receiving my undergraduate degree in 1975, I obtained further training in both law and economics. I received my law degree in 1981; I received my Masters Degree (economics) in 1993.

Q. HAVE YOU EVER PUBLISHED ON PUBLIC UTILITY REGULATORY ISSUES?

A. Yes. I have published more than 80 articles in scholarly and trade journals, primarily on low-income utility and housing issues. I have published an equal number of technical reports for various clients on energy, water, telecommunications and other associated low-income utility issues. A list of my professional publications is appended in Appendix A.

Q. HAVE YOU EVER TESTIFIED BEFORE THIS OR OTHER UTILITY COMMISSIONS?

A. I have previously testified before the New Hampshire Public Utilities Commission ("NHPUC" or "Commission") on multiple occasions regarding low-income energy and telecommunication issues. A complete list of proceedings in which I have previously appeared as an expert witness is presented in Appendix A.

Q. WHAT IS THE GENERAL PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony today is to assess the impact of the natural gas rate increase proposed by National Grid New Hampshire ("Company" or "National Grid") on low-income customers. This review will consider the following issues:

- The Company's proposed rate structure, including its fixed monthly customer charge and block rates;
- The Company's proposed automatic adjustment clauses; and
- The Company's proposed implementation of additional collection practices in pursuit of a lower rate of uncollectibles.

In general, I conclude that the Company's rate structure involving its customer charge and rate design should be modified; that the Company's proposals regarding automatic rate adjustments, including its revenue decoupling proposal should be disapproved; and that any approval of the Company's proposed increase in expenditures on its proposed collection plan should be conditioned on the Company adopting certain additional collection enhancements.

PART 1. THE COMPANY'S PROPOSED RATE STRUCTURE.

Q. PLEASE EXPLAIN THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY.

A. In this section of my testimony, I review the Company's proposed rate structure. In particular, I examine the customer charges proposed for residential customers, along with the block rates proposed for residential customers. I respond to the Company's rate design proposals from the perspective of the low-income, low-use residential customer. In particular, the Company has advanced two rate design proposals to which I wish to respond.

- First, the Company has proposed to increase its residential heating customer charge to $21.00 per month. (Attachment PMN-RD-4-3, page 4 of 5). This increase represents a 50% increase in the fixed monthly customer charge for the R-3 class. (Attachment PMN-RD-4-3, page 1 of 5).

- Second, the Company has proposed to maintain a declining block rate structure for the R-3 class. It proposes a volumetric rate of $0.2706 for the headblock rate and a volumetric rate of $0.2039 for the tailblock rate. (Attachment PMN-RD-4-3, pages 3 and 4 of 5).

I conclude that any increase in the Company's fixed monthly customer charge should be limited to the average percentage increase in overall residential rates. I conclude that the Company should adopt a flat rate structure.

A. THE IMPACT OF RATE DESIGN ON LOW-INCOME CUSTOMERS.

Q. WHAT IS THE IMPACT OF THE INCREASED FIXED CUSTOMER CHARGE ON LOW-INCOME CUSTOMERS IN PARTICULAR?

A. The proposed increase in the fixed monthly customer charge will have a particularly adverse impact on low-income customers. Low-income customers tend to be low-use customers. The proposed increase in the fixed monthly customer charge has the effect of imposing a much higher rate increase on low use customers.

Q. WHAT IS THE IMPACT OF THE DECLINING BLOCK RATE STRUCTURE ON LOW-INCOME CUSTOMERS IN PARTICULAR?

A. Imposing a declining block rate structure on R-3 customers has the same impact as imposing a higher customer charge in that a declining block rate structure has a particularly adverse impact on low-income customers. Low-income customers tend to be low-use customers. A declining block rate structure has the effect of placing a greater amount of cost recovery in the lower consumption ranges. As a result, the declining block rate structure has the effect of imposing a much higher rate increase on low-use customers.

Q. HOW DOES THE COMPANY JUSTIFY A 50% INCREASE IN THE CUSTOMER CHARGE FOR R-3 CUSTOMERS GIVEN A 25% INCREASE FOR OTHER CUSTOMER CLASSES?

A. According to Company Witness Normand, "the customer charge increases should be greater than the average increase if meaningful movement towards cost to serve were to be achieved." (OCA-1-128).

Q. HOW DOES THE COMPANY JUSTIFY ITS INCLINING BLOCK RATE STRUCTURE?

A. The Company states that ". . .declining block rates are intended to recover the fixed portion of a customer's costs and promote efficient pricing of natural gas service. This should translate to cost-effective decisions by customers." (Locke 2-28).

Q HAVE YOU EXAMINED THE IMPACT OF THE COMPANY'S PROPOSED RATE STRUCTURE ON LOW-USE CUSTOMERS IN PARTICULAR?

A. Yes. The Company provided a "comparison of present and proposed rates" for the winter season, as well as for the summer season, in response to discovery. The comparison for the R-3 rate class is set forth in Schedule RDC-1. As the Schedule shows, low use customers receive a significantly higher rate increase than do high use customers. When looking only at distribution rates, the increase at the 25^{th} percentile is nearly half again as high (29% vs. 20%) as the increase at the 75^{th} percentile. When looking at the total bill, the increase at the 25^{th} percentile is nearly twice as high as the increase at the 75^{th} percentile (10% vs. 6%).

Consider the data presented in Appendix B. These pages are duplicated from the Company's own analysis of the bill comparisons given existing rates and bill comparisons given the rates requested by the Company in this proceeding. (See, PMN-RD-4-5). A summary of the percentage distribution rate increases is presented below for the R-3 and R-4 customer classes. The percentage rate increases for the low use customers are consistently higher than the percentage rate increases for the high use customers.

Percentage Distribution Rate Increases
Under Company's Proposed Rates by Usage Levels

	Winter		Summer	
	R-3	R-4	R-3	R-4
25th percentile	29.15%	27.60%	42.71%	41.81%
50th percentile	24.19%	24.16%	30.27%	37.91%
75th percentile	20.34%	21.35%	36.63%	34.44%

B. THE RELATIONSHIP BETWEEN INCOME AND CONSUMPTION.

Q. HAVE YOU EXAMINED DATA SPECIFIC TO NEW HAMPSHIRE TO ASSESS THE RELATIONSHIP BETWEEN NATURAL GAS USAGE AND INCOME?

A. I have examined data produced by the U.S. Census Bureau setting forth natural gas bills by income level for the State of New Hampshire. While the Census data does not contain usage data per se, the information on expenditures nonetheless provides insights into the relative use of natural gas by income level.

The New Hampshire data is set forth in Schedule RDC-2. In this schedule, I present natural gas monthly expenditures as reported by the 2008 American Community Survey, the most recent Census data available. The American Community Survey collects annual data on selected household and housing characteristics in years between each Decennial Census. As can be seen, natural gas expenditures increase as each income tier increases in

New Hampshire.[1] Households with incomes greater than $150,000 have gas bills more than twice as high as households with income between $20,000 and $30,000. Households with income between $30,000 and $50,000 have gas bills more than twice as high as households with income between $10,000 and $14,999.

Q. IS THERE OTHER EMPIRICAL ANALYSIS OF THE RELATIONSHIP BETWEEN INCOME AND NATURAL GAS EXPENDITURES THAT IS CONSISTENT WITH THIS NEW HAMPSHIRE DATA?

A. Yes. The U.S. Department of Energy, Energy Information Administration ("DOE/EIA") has published regular periodic reports entitled the *Residential Energy Consumption Survey* ("RECS"). In a document released in June 2001, DOE/EIA released its analysis of RECS data titled *Natural Gas Use in American Households*. In the section of its analysis that examines the relationship between income and natural gas usage, DOE/EIA states:

> The use of natural gas for any end use and as the main heating fuel was approximately the same regardless of household income category. In contrast, natural gas consumption and expenditures per household did vary by household income—higher income households consumed more and spent more on average. Higher income households lived in larger housing units, which require more energy for heating.

(EIA/DOE, *Natural Gas Use in American Households*, Household Income, at text accompanying Figures 1 – 3) (June 2001).

[1] I offer no explanation for the outlier at $0 - $9,999.

Q. DOES THE DEPARTMENT OF ENERGY'S OBSERVATION THAT "HIGHER INCOME HOUSEHOLDS LIVE IN LARGER HOUSING UNITS, WHICH REQUIRE MORE ENERGY FOR HEATING" APPLY TO NEW HAMPSHIRE?

A. Yes. The association between the size of housing units and natural gas consumption can be empirically tested in New Hampshire. Schedule RDC-2 shows that housing unit size increases as income increases. While households with income between $10,000 and $20,000 have fewer than 4.5 rooms per housing unit, households with incomes between $50,000 and $75,000 have nearly 5.5 rooms; households with incomes between $75,000 and $150,000 have more than six (6.2) rooms; households with income of more than $150,000 have nearly eight (7.8) rooms per housing unit.

There can be little question but that there is a relationship between number of rooms in a housing unit, income and natural gas bills. Schedule RDC-3 sets forth the average monthly natural gas bills and average incomes by the number of rooms in a housing unit. The average monthly natural gas bill steadily increases as the number of rooms increases, from $29.90 per month for a two-room unit to $237.60 per month for a 12-room unit. So, too, does the average income of the household increase, from $38,109 for a two room unit to more than $60,000 for a five room unit, to nearly $200,000 for a 12 room unit.

I conclude that the observation that lower income households live in smaller housing units and consume less natural gas on average is an accurate, data-based observation for New Hampshire.

Q. IS THE NEW HAMPSHIRE DATA YOU DISCUSS ABOVE CONSISTENT WITH OTHER GOVERNMENT DATA ON NATURAL GAS EXPENDITURES AND CONSUMPTION?

A. Yes. The U.S. Department of Labor ("DOL") reports natural gas expenditures by region by income. New Hampshire is in the Northeast regional data reported by the Department of Labor's Consumer Expenditures Survey ("CEX"). The CEX data (Schedule RDC-4) corroborates the state-specific and national data on the relationship between natural gas consumption and income. As income increases, natural gas expenditures increase as well.

Q. WHAT IS THE IMPLICATION FOR LOW-USE CUSTOMERS OF PLACING ADDED COSTS ON TO THE CUSTOMER CHARGE AND INITIAL RATE BLOCK?

A. First, as I document above, by placing added costs on to the fixed customer charge and initial rate block for low-use customers, the Company is imposing a higher percentage rate increase on low-use customers and a lower percentage rate increase on higher use customers. In addition, the Company is making it more difficult for customers to respond to increases in their natural gas bills by adjusting their usage as a budget-control measure. This has several related impacts. To the extent that households reduce their natural gas consumption, the result is simply to subject themselves to a proportionately higher rate increase. Second, the Company's rate design increases the cost of the R-4 discount by disproportionately increasing low-income, low-use bills. Third, the Company's rate design impedes the ability of low- and moderate-income customers to pay their bills, thus interfering with the Company's collection efforts.

Q. WHY DO YOU CONCLUDE THAT THE COMPANY'S RATE DESIGN IMPEDES COLLECTION EFFORTS?

A. Increasing natural gas rates have significantly contributed to a loss of purchasing power in recent years. The impact of rising costs is more burdensome not only on low income but also on fixed income households. For example, consider the increases in the cost of living in recent years. According to the U.S. Department of Labor's "inflation calculator," items that cost $100 in 2005 would have cost $111.78 in 2010, i.e., the cost of living increased 11.78%.

Home energy bills in general, and natural gas bills in particular, have contributed to this increasing cost-of-living. The U.S. Department of Labor measures the cost-of-living using the three-year period 1982 through 1984 as the base (Base=100). By July 2010, the Consumer Price Index for all urban consumers ("CPI-U") had increased to 195.4 for "all items." In the time between July 2005 and July 2010, the CPI-U increased further to 218.011 (12%). The importance of the "all items" lies in the comparisons it allows me to make with specific components of a household's budget. From July 2005 through July 2010:

- Utility (piped) gas and electric service increased from 165.5 to 200.117 (an increase of 21%);
- Food (at home) increased from 189.8 to 215.256 (an increase of 13%);
- Rent (of primary residence) increased from 217.5 to 249.125 (an increase of 15%);
- Clothing increased from 113.8 to 115.248 (an increase of 1%).

My purpose in reviewing these figures is not to make an assessment of the relative importance of expenditures for any given household. The review clearly reveals, however, the disproportionately high increase in home natural gas prices as compared to increases in the price of other basic household necessities such as food, clothing and shelter. By disproportionately adding to the cost-of-living for households whose income already does not cover their cost-of-living, the Company is contributing to the very problem that it later seeks to spend more money to remedy through its collection proposals.

Q. WHAT DO YOU CONCLUDE?

A. Given the burden customers already face from rising costs, now is not the time to allow a shift of risks in utility rates from the utility to its customers by increasing the fixed customer charge and maintaining a declining block rate structure. Low and moderate-income households today are struggling to meet basic needs. These are precisely the customers, however, who will bear a disproportionately increased burden should the Company's proposed rate design be approved.

Q. WHAT DO YOU RECOMMEND?

A. I recommend two actions in response to the analysis above. First, I recommend that the Company be allowed to increase its customer charge, if at all, by a maximum of the rate of increase in the underlying distribution rates as a whole. If distribution rates are increased, by 10%, in other words, the customer charge should be allowed to increase by

10%. In so doing, the Company will be allowed to increase its customer charge such that it will continue to collect roughly the same proportion of its total revenue through its fixed customer charge as it has in the past. If the Commission allows a higher or lower percentage increase in the distribution rates, the percentage increase in the customer charge should also be increased or decreased accordingly.

Second, I recommend that the revenue not collected by the Company through its increased customer charge be collected through a flat block rate structure. This is a modest change from the Company's proposal. Under the Company's proposal, the Company retains a declining block rate. The Company's block rate structure is explicitly designed to collect a high proportion of costs from the lower consumption levels (Locke 2-28). The modest change I recommend continues a move to more actively provide a price-based conservation incentive.

Q. HAVE YOU CONSIDERED THE IMPACT OF YOUR REDUCED CUSTOMER CHARGE ON LOW-INCOME, LOW-USE CUSTOMERS?

A. Yes. I have adjusted the Company's R-3 and R-4 rates to reflect the recommendations I make above. I have increased the customer charge by 10%, resulting in a customer charge of $15.43 for the R-3 class (and the corresponding R-4 discounted customer charge). I have further set the block rates equal to a flat rate of $0.32980 per therm.

Q. WOULD A DECISION TO ADOPT A LOWER CUSTOMER CHARGE, ALONG WITH A FLAT BLOCK RATE STRUCTURE, AFFECT TOTAL REVENUES TO BE COLLECTED FROM OTHER CUSTOMER CLASSES?

A. No. The impact falls exclusively within the residential class.

Q. WOULD A DECISION TO ADOPT A LOWER CUSTOMER CHARGE, ALONG WITH A FLAT BLOCK RATE STRUCTURE, AFFECT TOTAL REVENUES TO BE COLLECTED BY THE COMPANY?

A. No. For the R-3 class, while the Company's rate design would generate revenues of $28,938,064, my recommendation would generate revenues of $28,922,295. For the R-4 class, while the Company's rate design would generate revenues of $1,027,876, my recommendation would generate revenues of $1,030,773. Nor does my change modify the overall rate increase. While the R-3 rate increase is 10.0% under the Company's proposal, it is 9.97% under my recommendation. While the R-4 rate increase is 5.34% under the Company's proposal, it is 5.46% under my recommendations.

Q. GIVEN THIS LACK OF OVERALL CHANGE, WHY SHOULD THE COMMISSION ADOPT THE MODIFIED RATE DESIGN?

A. The modified rate design results in higher bills to those customers causing higher costs. Schedule RDC-5 sets forth a comparison of the bills resulting from the Company's proposal to the bills resulting from adoption of my recommendations. Looking at bills at the various percentiles used in the Company's own bill comparison (Attachment PMN-RD-4-5, p. 3 of 24), I find as follows:

- At the 25th percentile, while the Company's rates would increase distribution bills by 29.16%, my recommendation would increase bills by 22.16%.
- At the 50th percentile, while the Company's rates would increase distribution bills by 24.19%, my recommendation would increase bills by 25.09%.
- At the 75th percentile, while the Company's rates would increase distribution bills by 29.85%, my recommendation would increase bills by 38.95%.

While bills at the median (50th percentile) remain virtually the same, in other words, higher use customers pay somewhat more while lower use customers would pay somewhat less. The "percentiles" show what proportion of customers are at or below that usage level. The "75th percentile", for example, says that 75% of all customers have usage at or below this usage level.

Q. DO THE R-4 RATES SHOW A SIMILAR PATTERN?

A. Yes. As indicated in Schedule RDC-5, the R-4 rates show a similar pattern.

C. CONSISTENCY WITH ECONOMIC AND REGULATORY PRINCIPLES.

Q. PLEASE EXPLAIN HOW YOUR PROPOSALS REGARDING THE CUSTOMER CHARGE AND BLOCK RATES ARE FUNDAMENTALLY CONSISTENT WITH BASIC RATEMAKING PRINCIPLES.

A. The purpose of a customer charge is to compensate the Company for the costs the Company incurs in connecting a customer to the system. The customer charge should be designed to include the costs of factors such as the customer's meter, the service, and the basic meter reading and billing activities. The customer charge should *not* be a dumping ground for miscellaneous expenses.

Moreover, placing excessive costs in the customer charge discourages customers from making investments in usage reduction practices. To the extent that costs are placed into the fixed monthly customer charge, the only way for a customer to avoid paying those costs is to leave the system. While perhaps, at some gross level of abstraction, it is theoretically conceivable for residential customers to leave the natural gas system by moving to an alternative fuel such as fuel oil or electricity for space heating, in reality, the transaction costs (such as refitting the home for a new heating system) involved with this action makes the choice to switch fuels effectively unavailable.

The fact is that the Company has no evidence that residential customers can economically engage in fuel switching as a mechanism to avoid paying higher natural gas bills due to increases in the customer charge (or in the initial block rate). (Locke 2-31).

Quite aside from that general observation, for low-income customers in particular, the same market barriers that impede investments in usage reduction would impede such fuel switching as well. Those barriers include high hurdle rates –hurdle rates range from roughly 30% for residential customers as a whole up to 100% for low-income customers, the lack of investment capital, and the lack of dominion over energy-consuming systems in the home.

For these reasons, it is reasonable to limit the increase in the fixed monthly customer charge in the way I recommend. It is further reasonable to move to a flat rate structure. To do so not only benefits consumers, but it also promotes more efficient consumer decision-making as well. It finally enhances the Company's ability to collect its revenues without resort to the more stringent (and more costly) collection processes that it advances in this proceeding.

Q. HAVE YOU CONSIDERED THE CONSISTENCY OF YOUR PROPOSED RATE STRUCTURE WITH ECONOMIC THEORY?

A. Yes. In theory, utility rates are designed to serve multiple functions. Those functions include, but are not necessarily limited to:

- Allocating risks between the utility and the utility's customers by allowing the utility to collect sufficient revenue to cover its revenue requirement and provide a reasonable opportunity to earn its allowed rate of return while providing the utility customers with an opportunity to avoid the need to spend money on home energy should they be able to reduce their consumption;

- Providing a price signal so that consumers understand the full economic cost of their consumption decisions; and

- Matching the costs incurred by the Company with the revenues generated by the Company, both by time and by customer.

Q. HOW DOES THE COMPANY'S PROPOSED RATE STRUCTURE ALLOCATE THE RISKS BETWEEN THE UTILITY AND ITS RATEPAYERS?

A. The Company's proposal to place the bulk of its cost recovery in the fixed monthly customer charge will tilt the allocation of risk away from the utility and toward its customers. One purpose of the Company's proposed rate design (high customer charges coupled with a declining block rate structure) is to protect the Company against a decrease in revenues due to customer decisions to reduce their natural gas consumption. Particularly when the customer decision is to reduce consumption based on a need to control the strain that home heating bills place on the household budget, one primary objective of the Company's rate structure in this proceeding is to modify the existing allocation of risks between the Company's investors and the Company's customers so as to deprive the customer of that choice. As I indicate above, however, now is not the time for such a change in that allocation of risk.

Q. HOW DOES THE COMPANY'S PROPOSED RATE STRUCTURE RELATE TO PROVIDING A PRICE SIGNAL ABOUT THE FULL ECONOMIC COSTS OF CONSUMPTION CHOICES?

A. The Company argues that its proposed rate structure is necessary to promote economic efficiency. (Normand, at 9). According to the Company, the pricing proposal in this docket encourages economic efficiency by moving prices toward marginal costs. (Normand, at 9). This entails both lowering volumetric charges and raising customer charges.

The problem with this argument is that utility prices do not, and cannot, capture the full costs of utility consumption. This is the argument of advocates arguing for the "full cost pricing" of water. Let me set aside the environmental and resource depletion costs that utility rates do not capture. Without internalizing such costs, of course, it is impossible for any utility to say that its rate structure is producing the proper level of goods and services for society using the minimum level of resources.

Let me look at the full cost of natural gas consumption for low-income households as one example. With low-income customers, the pricing of natural gas does not capture the full cost of natural gas rates. According to a Congressionally-funded survey of federal fuel assistance recipients by the National Energy Assistance Directors Association (NEADA),[2] for example, 16% of low-income households have experienced illness in their homes because they could not afford to keep their homes sufficiently warm. Indeed, 11% of fuel assistance recipient homes experienced an illness of sufficient severity that the household had to seek medical care. The full costs of these impacts of high natural gas rates are not reflected in utility rates. Given this lack, it is simply impossible to conclude that a utility's rate structure produces the proper level of goods and services for society using the minimum level of resources as is argued by the Company in support of its rate structure. The Company cannot say that charging higher natural gas prices, and forcing some households to accept the resulting higher medical costs, involves producing the proper level of goods and services for society using the minimum level of resources.

Indeed, the utility rate structure proposed by the Company impedes households making proper economic choices because it does not allow the Company's customers to adjust their choices between competing economic needs. The rate structure that the Company

[2] Apprise, Inc., ***National Energy Assistance Survey Report***(s) (2003, 2005, 2008, 2009), National Energy Assistance Directors Association and Apprise, Inc.: Princeton (NJ).

proposes is specifically designed to allow a customer to avoid paying money to the utility only by choosing not to take natural gas service at all. If a low-income customer needs to spend money on health care rather than natural gas, the Company's rate structure does not allow that choice to be made. If a low-income customer needs to spend money on prescription medicine rather than natural gas, the Company's rate structure does not allow that choice to be made. If a low-income customer needs to spend money on nutrition rather than natural gas, the Company's rate structure does not allow that choice to be made.

In short, the Company's proposed rate structure does not promote economic efficiency in any sense of the phrase. The Company's proposed rate structure prevents customers from making choices rather than enhancing those choices. The Company's rate structure is not designed to promote economic efficiency by incorporating the full economic costs of their consumption decisions. The Company's rate structure is instead designed to reallocate the risks between utility investors and utility ratepayers to protect the financial interests of Company investors.

Q. HOW DOES THE COMPANY'S PROPOSED RATE STRUCTURE PROVIDE FOR THE MATCHING OF COSTS AND REVENUES?

A. The Company's proposed rate structure is not designed to provide for a matching of costs and revenues. Rather than matching costs and revenues, the Company seeks to maximize the extent to which revenues are unavoidable. According to the Company, its own marginal cost study shows that design day demands are the primary driver of marginal costs. The Company acknowledges that marginal delivery system costs (other than customer costs) are a function of customer demands on the design day. (Normand, at 14). What the Company does *not* acknowledge, however, is that high consumption is indicative of high design day demands. The Company's reliance on high fixed monthly customer charges requires all customers, higher user and lower user, to pay the same, even though the contribution they make to Company costs differs. So, too, does the declining block rate structure impose higher costs on smaller users rather than on higher users.

Q. UPON WHAT DO YOU BASE YOUR CONCLUSION THAT HIGH USERS IMPOSE HIGHER COSTS ON THE COMPANY'S SYSTEM?

A. One way residential energy consumption is measured involves the intensity of usage. According to the U.S. Department of Energy's ("DOE") Residential Energy Consumption Survey ("RECS"), natural gas home heating intensity is measured in terms of cubic feet of consumption per thousand square feet of heated space per Heating Degree Days ("HDDs"). One can apply that heating intensity approach to gain insights into the design day demands imposed by customers with varying energy consumption.

In 2008, I have applied the natural gas space heating intensity data published by DOE based on the weekly HDD's for Concord and Lebanon, New Hampshire. I consistently found that larger consumers will also impose higher heating demands on a natural gas system, assuming that Company costs are, as the Company asserts, driven by design day demands. In Concord, I compared the weekly natural gas heating demands by households having income at or below $10,000 compared to households with income higher than $50,000.

- During the week of January 12, 2008, a low-income household would have required 2,224 cubic feet compared to 2,881 for a household with income over $50,000;

- During the week of February 12, 2008, a low-income household would have required 2,966 cubic feet compared to 3,841 cubic feet for a household with income over $50,000.

- During the week of February 23, 2008, a low-income household would have required 3,194 cubic feet of natural gas, compared to 4,138 cubic feet for a household with income over $50,000.

The same relationship held true for Lebanon.

- During the week of January 19, 2008, a household with income less than $10,000 would have demanded 3,173 cubic feet of gas, compared to 4,109 for a household with income greater than $50,000.

- During the week of February 9, 2008, a household with income less than $10,000 would have consumed 2,747 cubic feet of gas, while a household with income greater than $50,000 would have consumed 3,559.

- During the week of March 1, 2008, a low-income household (below $10,000) would have consumed 3,467 cubic feet of gas, compared to 4,491 cubic feet by a household with income greater than $50,000.

While the data above presents information on a weekly basis, what the data *shows* is the relationship between high consumption and the increased demands that are placed on a New Hampshire natural gas system as heating loads increase. The same mathematical relationship would exist on a daily basis as is documented above on a weekly basis.

Despite these widely varying demands placed upon the natural gas system, and despite the Company's acknowledgement that the marginal delivery costs are driven by design day demands, the Company proposes to impose higher fixed customer charges on residential customers to collect what the Company refers to as “fixed” costs. The small users, imposing lower costs on the system, nonetheless will be called upon to pay the same fixed monthly customer charge and higher initial block rate as larger users. In addition, as I demonstrate above, and as the Company concedes, these small users will be called upon to pay substantially higher proportionate rate increases. In short, the Company’s proposed rate structure fails to fulfill the function of a rate structure to match Company revenues with Company costs.

Q. WHAT DO YOU CONCLUDE?

A. Based on the data and analysis I present above, I conclude that the Company’s proposals to substantially increase its fixed monthly customer charge and to retain its declining block rate structure are not merited by any application of economic theory.

Q. PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS BASED ON THE DATA AND DISCUSSION YOU PRESENT ABOVE.

A. My findings and conclusions are as follows:

- ❖ The Company’s proposal to adopt a higher customer charge, combined with a declining block rate structure, do not reflect cost causation.
- ❖ The Company’s proposal to adopt a higher customer charge, combined with a declining block rate structure, is not supported by the application of economic theory.
- ❖ The Company’s proposal to adopt a higher customer charge, combined with a declining block rate structure, is anti-conservation.
- ❖ The Company’s proposal to adopt a higher customer charge, combined with a declining block rate structure, inappropriately shifts risk from investors to customers.

- ❖ The Company's proposal to adopt a higher customer charge, combined with a declining block rate structure, impedes the accomplishment of regulatory objectives that have been articulated by the Company, including the objective of improving collections and decreasing bad debt;

- ❖ The Company's proposal to adopt a higher customer charge, combined with a declining block rate structure, have a disproportionately adverse impact on the affordability of natural gas to low-use, low-income customers; have a disproportionately adverse impact on the ability of low-use, low-income customers to engage in conservation; and have a disproportionately adverse impact on low-use, low-income customers to avoid collection efforts, including the disconnection of service.

PART 2. THE PROPOSED AUTOMATIC ADJUSTMENT CLAUSES.

Q. PLEASE EXPLAIN THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY.

A. In this section of my testimony, I respond to the proposals that the Company has advanced to implement a series of automatic adjustment clauses. My reference to an "automatic adjustment clause" is to a mechanism through which the Company will automatically adjust rates based on changes in selected factors underlying those rates, without a general base rate case, without consideration of the impact of the rate adjustment on the Company's earnings, and without consideration of corresponding changes in other aspects of the Company's operations, including both revenues and expenses. The Company's automatic adjustment clauses include not merely adjustments for capital expenditures, for inflation, and for bad debt expenses, but an automatic adjustment clause for "lost revenue," however caused. In my discussion below, I will first focus on the Company's proposed "decoupling" proposal. I will then address the remaining automatic adjustment clauses as a group.

A. THE COMPANY'S PROPOSED DECOUPLING MECHANISM.

Q. PLEASE EXPLAIN THE COMPANY'S PROPOSED DECOUPLING MECHANISM AS YOU UNDERSTAND IT.

A. According to Company witness Tierney, the revenue decoupling mechanism is "designed to address ratemaking barriers that serve to pit the Company's financial interests against its customers' (and the state's) interest in the aggressive adoption of cost-effective energy efficiency services to help them manage their energy bills." (Tierney, at 6). According to Tierney, "decoupling has become a key ingredient of rate structure for many utilities that are aggressively pursuing increased energy efficiency." (Tierney, at 35). Decoupling is needed, she says, "to mitigate the financial disincentives that would otherwise exist and that would impede utilities full pursuit of cost-effective energy efficiency." (Tierney, at 36).

Q. HOW IS THE DECOUPLING MECHANISM STRUCTURED?

A. Target revenues and rate-year number of customers will be established in the rate case for each customer group. Using those target revenues and customer counts for each customer class, a "Target Revenue per Customer" will be established. (Tierney, at 55). If the actual revenue per customer differs from the Target Revenue per Customer, the difference between the two will be aggregated and flowed through to customers through an automatic adjustment clause. (Tierney, at 57). This reconciliation involves "full revenue decoupling" for existing customers; no adjustments are made for the effect of weather, economic factors, adoption of energy efficiency measures, or other influences. (Tierney, at 58).

Q. WHAT DO YOU RECOMMEND WITH RESPECT TO THE COMPANY'S DECOUPLING PROPOSAL?

A. I recommend that the Company's decoupling proposal be disapproved. In the alternative, if the decoupling mechanism is not disapproved in its entirety, the R-4 customer class should be exempted from paying the decoupling charges.

B. The Unique Low-Income Interest in Decoupling.

Q. WHY IS THE COMPANY'S PROPOSED REVENUE DECOUPLING MECHANISM OF PARTICULAR CONCERN TO LOW-INCOME CUSTOMERS?

A. Low-income households are adversely affected by the Company's decoupling mechanism in two ways. First, low-income households tend to make less of a contribution toward the need for system capacity costs. Despite their lack of cost-causation responsibility for these costs, low-income customers will end up paying even more for the Company's capacity costs nonetheless as system costs are transferred to the usage remaining after implementation of the Company's decoupling mechanism. Second, the greatest usage reduction potential for the Company's customers lies with the larger usage of non-low-income customers. Accordingly, the revenues that are likely to be reduced will occur for non-low-income accounts, with a resulting disproportionate transfer of those system costs to low-income customers as the lost revenue is transferred to lower use customers.

Q. PLEASE EXPLAIN THE BASIS FOR YOUR CONCLUSION THAT SYSTEM CAPACITY COSTS WILL BE TRANSFERRED TO LOW-INCOME CUSTOMERS THAT DID NOT PRIMARILY CAUSE THE NEED FOR THOSE COSTS IN THE FIRST INSTANCE.

A. The combination of natural gas heating intensities and housing size shows that higher design day demands are disproportionately imposed by higher income customers. I discussed the relationship between income and design day demands in detail above.

Q. PLEASE EXPLAIN THE BASIS FOR YOUR CONCLUSION THAT THE GREATEST POTENTIAL FOR ENERGY SAVINGS LIES WITH THE HIGHER USAGE OF NON-LOW-INCOME CUSTOMERS.

A. There can be little question any more but that low-income customers use less natural gas than do their higher income counterparts. I presented much of the data in support of this proposition in my discussion above. In addition, Schedule RDC-6 presents data on natural gas heating consumption by income as published by the U.S. Department of Energy's Residential Energy Consumption Survey for 1997 and 2005. Schedule RDC-7 presents data on natural gas heating usage intensity by income as published by the Department of Energy's RECS for 1997 and 2005. These schedules document that, while low-income households may use natural gas for space heating more intensely than do their higher income counterparts, the overall consumption for low-income households is substantially less. As reported by DOE, and as I document above, the size of housing units occupied by low-income households is sufficiently smaller so as to make overall natural gas consumption for these customers significantly lower than for higher income households. Indeed, Schedule RDC-8 presents the square feet of living space by income as reported by the DOE's 2005 RECS. This DOE data is consistent with, both supporting and being supported by, the New Hampshire housing data I discuss above.

Q. WHAT IS THE SIGNIFICANCE OF THESE TWO OBSERVATIONS?

A. The two observations I make above –(1) that low-income customers do not make the same contributions to the capacity costs of the Company; and (2) that low-income customers do not have the same usage reduction potential as their higher-use, higher-income counterparts do—independently, and certainly in combination, indicate the inequity involved with the Company's proposed revenue decoupling mechanism. Not only will the decoupling mechanism likely result in the disproportionate transfer of additional costs to low-income, low-use customers, but those costs are costs that the low-income, low-use customers did not cause the Company to incur in the first instance.

Q. ARE THERE OTHER SIGNIFICANT OBSERVATIONS TO BE DRAWN FROM THE DATA ON NATURAL GAS SPACE HEATING USAGE LEVELS OVER TIME?

A. Yes. The data in Schedules RDC-6 and RDC-7 document further that the usage reduction that has been occurring over time, as urged by the Company's witnesses as support for its revenue decoupling proposal (see, e.g., Tierney,at 8 – 9), has not been uniform over income classes. The usage reduction, both in absolute and in relative terms, is considerably more substantial in the higher income ranges than in the lower income ranges. Accordingly, should the Company's decoupling mechanism be adopted, there will unquestionably be a transfer of costs from the customers who are disproportionately reducing their consumption to those customers who are not. In New Hampshire, this would involve a transfer of costs from higher income to lower income customers.

Q. CAN YOU ILLUSTRATE THE EXTENT TO WHICH THIS REALLOCATION OF REVENUES ADVERSELY AFFECTS LOW-INCOME CUSTOMERS?

A. Yes. I have set forth such an illustration in Schedule RDC-9. In this schedule, I use U.S. Department of Energy, Energy Information Administration (DOE/EIA) natural gas space heating intensity figures. To estimate the decreasing revenue attributable to increasing efficiency in the use of natural gas, I have calculated revenues using 1997 space heating intensities and compared those to revenues using 2005 natural gas space heating intensities to determine the "lost revenue" attributable to that increased efficiency in usage. I determine the lost revenues for both low-income customers and for the "average" residential customer, using DOE's natural gas space heating intensities. I aggregate those lost revenues and spread them over all consumption. In this fashion, I can determine the revenues that would have been paid with and without a mechanism to recognize and recover the lost revenues in rates. I assume that roughly 20% of all residential customers are "low-income" for purposes of this calculation. That is consistent with the findings of various parties in other proceedings before the New Hampshire PUC.

I calculate the extent to which, if at all, the operation of a mechanism to recognize and recover lost revenue transfers costs that would have been paid by non-low-income customers to the low-income customer base. I determine the reverse subsidy per 1,000 customers and per individual customer. As Schedule RDC-9 demonstrates, the recovery of lost revenues in the manner in which the Company proposes would have resulted in a reverse subsidy of more than $13 per customer per year flowing from the low-income customer base to the non-low-income customer base. There can be no justification for this reverse subsidy *from* low-income customers *to* non-low-income customers.

Q. DO YOU EXPECT THIS REVENUE SUBSIDY TO BE EVEN HIGHER THAN YOU CALCULATE?

A. Yes. My evaluation of this reverse subsidy assumes that all units of natural gas are priced the same. To the extent that heating load is priced higher (for example, either because of seasonal rates or because of an inclining block rate structure), the reverse subsidy will be even greater than I calculate above.

Q. WHAT CONCLUSIONS DO YOU DRAW?

A. The proposed decoupling rider is fatally flawed in at least two respects. First and foremost, the general operation of the rider involves transferring cost responsibility from customers who have the capacity to reduce natural gas use to those who do not. Those customers who lack the capacity to engage in usage reduction include low-income customers, who least can afford to bear this increased cost responsibility.

Second, the specific operation of the "decoupling" adjustment clause has, inherent within it, the result that revenues that had been charged to non-low-income customers will be transferred to low-income customers through the operation of the adjustment clause. My point is not to establish the *exact* magnitude of this billing reallocation. It is instead simply to demonstrate that this transfer *will* occur and that the transfer involves significant dollars each year.

Q. SHOULD THE COMMISSION DECIDE TO APPROVE THE COMPANY'S RATE DECOUPLNIG PROPOSAL, HOW MIGHT THE COMMISSION REMEDY THIS INEQUITY?

A. The Commission should act to remedy this inequity by exempting the R-4 customers from paying the revenue decoupling adjustment. In sum, should the Commission decide to approve some form of the Company's proposed rate stabilization mechanism, the lost revenue collected through that mechanism should be billed back to the customers from whom that revenue was most likely to have been paid in the first instance. The customers who would likely have been responsible for paying this revenue in the absence of the decoupling mechanism do not likely fall within the R-4 customer class. Accordingly, the R-4 customers should not, through the decoupling mechanism, be made responsible for those costs in the future.

In the alternative, and it is a considerably less-supported alternative, should the Commission approve the revenue decoupling mechanism, the dollars billed through that mechanism should be made subject to the R-4 discount. Through this mechanism, the transfer of costs from higher income to lower-income customers will be mitigated. This alternative is a considerably less viable alternative for two reasons. First, it does not reach the transfer of costs to low-income natural gas customers not using natural gas for heating. Second, it does not reach low-income natural gas heating customers who have not applied for LIHEAP and thus have not been enrolled in the R-4 rate.

C. THE REGULATORY POLICY AGAINST DECOUPLING.

Q. WHY DO YOU RECOMMEND THAT THE DECOUPLING PROPOSAL BE DISAPPROVED?

A. In addition to its disproportionate non-cost-based cost shifting to low-income consumers as I document above, the Company's decoupling proposal is also contrary to long-standing regulatory principles relating to utility ratemaking. The Company's decoupling proposal simply serves as an automatic adjustment, rate stabilization, mechanism.

The purpose of a rate case, of course, is not to establish a specific level of revenue and expenses that a utility is entitled to recover on a monthly or annual basis. Rather, the purpose of a rate case is to establish the ***relationship*** between costs and revenues which will allow the Company a reasonable opportunity to earn its authorized rate of return. Should, for whatever reason, the cost or revenue structure of the Company change sufficiently to ***prevent*** it from earning an adequate rate of return, and those changes are expected to continue to be experienced by the utility, the Company should respond by filing a base rate case, not by seeking to recover additional revenues through an automatic adjustment clause. Only in extraordinary circumstances should an automatic adjustment clause be used to recover costs or revenues.

Q. IS THERE A REGULATORY INCENTIVE FUNCTION TO BE SERVED BY *DIS*APPROVING THE COMPANY'S PROPOSED DECOUPLING MECHANISM?

A. Yes. Even if one accepts the notion, simply for the sake of argument, that the Company may not be receiving its full revenues given revenue reductions attributable to declining consumption, one cannot *a priori* assign those lost revenues to the fixed-cost component of the Company's revenue requirement. Once one recognizes that the Company's fixed costs could just as easily be determined to be recovered by the ***first*** dollars paid by customers, any revenue reduction attributable to declining consumption would be associated with variable costs rather than fixed costs. The ***remedy*** for the Company, in this situation, would be to become more efficient in its operations rather than to seek to ensure its collection of a certain level of revenue per customer through a rate stabilization mechanism. *At a minimum*, the Commission should limit National Grid's rate stabilization mechanism to a certain proportion of the lost revenue as a means of encouraging the Company to offset its lost revenues through improvements in its efficiency of operations.

Q. WHAT IF THE COMPANY CANNOT OFFSET ITS LOST REVENUES WITH INCREASES IN THE EFFICIENCY OF ITS OPERATIONS SUFFICIENT TO MAINTAIN AN ADEQUATE RATE OF RETURN?

A. If the Company determines that its return is insufficient, it should file a base rate case. Accordingly, if National Grid's lost revenues are of sufficient magnitude that the Company cannot earn an adequate rate of return, it is the decision of the Company whether to accept those continuing circumstances or whether to seek base rate relief. In either case, it is ***not*** appropriate to isolate the revenue reductions for single issue rate recovery. It cannot simply be assumed that the Company's lost revenues cause any earnings deficit.

Q. WHY DO YOU BELIEVE THAT THERE IS AN EFFICIENCY FUNCTION TO BE SERVED BY DENYING THE COMPANY'S DECOUPLING MECHANISM?

A. Collection of costs through volumetric base rates creates an incentive for National Grid to be efficient in the expenses that it incurs. For several reasons, it is inappropriate to deviate from this basic ratemaking principle for the lost revenues identified by National Grid.

First, as a general rule, it would be inappropriate to allow a company to adjust its collection of revenues in the absence of a full rate inquiry into the total costs and revenues of the utility. To the extent that usage reduction amongst Company customers assists the Company in the effective and efficient collection of bills, in addition to causing the Company to incur the lost revenues with reduced sales, the usage reduction will generate offsetting expense savings to the utility as well. One of the most significant aspects of those cost savings will be the reduction in working capital and uncollectibles associated with the arrears that are avoided by the usage reduction. It is improper to isolate one component of the Company's cost-of-service (i.e., Company revenues) for special rate recovery without considering the corresponding cost savings.

Second, in a related vein, recovery of expenses from ratepayers is merely the means to allow the Company a reasonable opportunity to earn an adequate rate of return, not to allow specific dollars to be passed through to ratepayers, nor to allow specific revenues to be collected from ratepayers. National Grid is not entitled to institute a separate charge to collect some discrete revenue component that it has segregated out for individual analysis. Decreased revenues attributable to usage reduction do not necessarily threaten the ability of the Company to earn an adequate rate of return. The various individual cost and revenue components of the Company's cost of service are constantly increasing and decreasing.

Third, the mere fact that some expenses increase and some revenues decrease does not mean that the relationship between costs and revenues has changed. Even if dollars of revenue do not equal the dollar amount that was included in cost-of-service in the most recent base rate case, it cannot *a priori* be concluded that the Company is not recovering its costs.

Q. CAN YOU GIVE AN EXAMPLE OF HOW ADJUSTING FOR LOST REVENUE WITHOUT CONSIDERATION OF THE INTERRELATIONSHIP OF REVENUES AND EXPENSES WOULD BE INEQUITABLE?

A. Yes. Let me consider the impact of energy efficiency investments directed toward low-income customers as one illustration with which I am particularly familiar. When energy efficiency investments are directed toward low-income households, those households will experience a decrease in consumption (along with a decrease in their corresponding bills). In addition to the revenue loss to the utility, however, the utility experiences a decrease in expenses as well.

Q. HAVE SUCH UTILITY-RELATED NON-ENERGY BENEFITS BEEN IDENTIFIED AND QUANTIFIED BEFORE?

A. Yes. The most recent authoritative assessments have been made of the utility-related non-energy benefits arising from the implementation of energy efficiency improvements in low-income housing units. An assessment of non-energy benefits by Oak Ridge National Laboratory[3] found utility benefit as follows classified as "ratepayer benefits" in 2001 dollars:

- Lower bad debt write-off: $89
- Reduced carrying costs on arrearages: $57
- Fewer notices and customer calls: $6
- Fewer shutoffs and reconnections for delinquencies: $8
- Reduced collection costs: not available
- Insurance savings: $1
- Transmission and distribution loss reduction: $48

As can be seen, the total benefits accruing to the utility would thus be $209 per treated customer in 2001 dollars. Bringing these avoided costs forward to 2010 dollars places the value at $258 (using the U.S. Department of Labor's Inflation Calculator). The dollar value of the non-energy avoided costs would need to be updated on an annual basis.

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[3] Martin Scweitzer and Bruce Tonn (April 2002). Nonenergy Benefits From the Weatherization Assistance Program: A Summary of Findings from the Recent Literature, Oak Ridge National Laboratory: Oak Ridge (TN).

Q. HOW DO THESE AVOIDED COSTS RELATE TO THE COMPANY'S DECOUPLING PROPOSAL?

A. The Company's decoupling proposal would seek to hold the Company harmless from the loss of revenue from the low-income efficiency investments underlying my illustration here. On the expense side, there is no corresponding mechanism that the Company has proposed to reflect these decreased ***costs*** resulting from the efficiency investments. As a result, these dollars of non-energy avoided costs would simply flow through as increased earnings to the Company's shareholders.

D. THE NON-DECOUPLING AUTOMATIC ADJUSTMENT CLAUSES.

Q. DO THE REGULATORY PRINCIPLES THAT YOU ARTICULATE ABOVE APPLY WITH EQUAL FORCE TO THE AUTOMATIC ADJUSTMENT CLAUSES NOT INVOLVING DECOUPLING?

A. Yes. The principles identified above that are violated by the automatic adjustment proposals include:

- The purpose of a rate case, of course, is not to establish a specific level of revenue and expenses that a utility is entitled to recover on a monthly or annual basis. Rather, the purpose of a rate case is to establish the ***relationship*** between costs and revenues which will allow the Company a reasonable opportunity to earn its authorized rate of return.

- Only in extraordinary circumstances should an automatic adjustment clause be used to recover costs or revenues.

- It is ***not*** appropriate to isolate the individual expense items for single issue rate recovery. It cannot simply be assumed that the Company's lost revenues associated with usage reduction cause any earnings deficit.

- It would be inappropriate to allow the Company to adjust its collection of revenues in the absence of a full rate inquiry into the total costs and revenues of the Company. It is improper to isolate one component of the Company's cost-of-service for special rate recovery without considering the corresponding cost savings.

- Merely because some expenses increase and some revenues decrease does not mean that the relationship between costs and revenues has changed. Even if dollars of revenue do not equal the dollar amount that was included in cost-of-service in the most recent base rate case, in other words, it cannot *a priori* be concluded that the Company is not earning a fair return.

Q. ASIDE FROM THE POLICY REASONS TO DISAPPROVE THE PROPOSED ADJUSTMENT CLAUSES, DO THE PROPOSED ADJUSTMENT CLAUSES RESULT IN RATE INEQUITIES?

A. Yes. One unintended consequence of the automatic adjustment clauses proposed by the Company is a significant reduction of the discount offered to R-4 customers. The expenses collected through the adjustment clauses are expenses that, in the absence of the adjustment clauses, would have been collected, if at all, through distribution rates. By unbundling those costs and collecting them through the automatic adjustment clauses, the discount that would have been applied to make bills more affordable to R-4 customers will no longer be applied. The Company does not dispute that it does not propose to apply the R-4 discount to the adjustment clauses. (Locke Tech 1-4).

Q. HAVE YOU EXAMINED THE RATE IMPACT ON R-4 CUSTOMERS?

A. Yes. The adjustments would add $112,195 to R-4 bills (Locke 1-9) in 2011 (Locke 2-6). Given an R-4 participation of 5,000 customers (Locke 2-30), each R-4 customer would pay $23 per year through the automatic adjustment clauses alone in 2011. In just the next year, the cost to R-4 customers alone is projected to nearly double to $218,695. (Locke 2-

8). With an R-4 participation rate of 5,000, each R-4 customer would pay nearly $45 a year in 2012.

Q. WHAT DO YOU RECOMMEND?

A. I recommend that the Company's proposed automatic adjustment clauses be disapproved as contrary to fundamental regulatory policy. In the alternative, should the automatic adjustment clauses be approved, those clauses should be made subject to the R-4 discount.

PART 3. THE COMPANY'S COLLECTION PROPOSALS.

Q. PLEASE EXPLAIN THE COMPANY'S COLLECTION PLAN PRESENTED IN THIS PROCEEDING AS YOU UNDERSTAND IT.

A. The Company has planned or implemented six initiatives to respond to criticisms about its level of bad debt: (1) lowering the termination threshold from $500 to $125; (2) instituting deposit collection for 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. (Hirschey, at 20; McCarthy, at 17 - 18).

Q. IS THERE A REVENUE REQUIREMENT IMPACT ASSOCIATED WITH THE COMPANY'S COLLECTION INITIATIVES?

A. Yes. The Company reports that it has included an additional $776,886 in expenses in its revenue requirement to pay for its collection initiatives. (McCarthy, at 18; see also, Staff 1-90).

Q. CAN YOU SUMMARIZE YOUR RECOMMENDATION REGARDING THE COMPANY'S COLLECTION INITIATIVES?

A. Yes. First, I recommend that the Company's proposal to reduce its termination threshold to $125 be disapproved. Second, in the event that my first recommendation is not accepted, and strictly in the alternative, I recommend that any approval of including increased expenses associated with modifications in the collections process be conditioned upon adoption of a series of reasonable enhancements in the collection process.

Q. WHAT IS THE LOW-INCOME INTEREST IN THE COMPANY'S COLLECTION PROCESS?

A. Low-income customers are disproportionately payment troubled. This is not to say that all low-income customers are payment troubled, nor that all payment-troubled customers are low-income. There can be no serious contention any more, however, but that low-income customers are disproportionately payment-troubled (and that payment-troubled customers are, accordingly, disproportionately low-income).

Q. WHAT DO YOU CONCLUDE?

A. When National Grid states that it is going to pursue more intense collections efforts directed toward payment-troubled customers, those more intense collections efforts will be disproportionately directed toward low-income customers. It is reasonable to expect that a substantial proportion of those customers will be low-income customers who are disconnected because they cannot afford to pay their bills.

Q. HAVE YOU REVIEWED ANY INFORMATION SPECIFIC TO NEW HAMPSHIRE THAT TENDS TO CONFIRM THE APPLICABILITY OF THESE OBSERVATIONS TO NEW HAMPSHIRE?

A. Yes. As part of the Electric Assistance Program ("EAP"), the participating electric utilities submit periodic reports regarding prescribed residential statistics. One of the reports that are filed contains an aging report. Across-the-board, these New Hampshire reports support the conclusion that low-income customers have greater payment troubles than do non-low-income customers.

A. THE PERSONAL COST OF DISCONNECTIONS.

Q. PLEASE EXPLAIN THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY.

A. In this section of my testimony, I outline the personal cost of service disconnections for nonpayment. According to the Company, it disconnected the following number of accounts in the three years prior to the implementation of its additional collection initiatives:

- 12 months ending December 31, 2007: 1,612 (R-3)

- 12 months ending December 31, 2008: 1,754 (R-3)
- 12 months ending December 31, 2009: 3,069(R-3)

(Locke 1-27). In contrast, pursuant to its additional collection activity, the Company disconnected 5,310 accounts in the period June 1, 2009 through June 28, 2010. (Locke 1-26). The Company declined to estimate the number of disconnections per year in the future "based on all of the Company's proposed enhanced collections activities." (Locke 1-28). "Given the uncertainty of economic conditions and other factors, the Company cannot be certain how long the elevated pattern indicated for the 12 months ending 2009 will continue." (Locke 1-28).

Using the disconnection of service as a collection mechanism, however, is not simply a matter of moving dollar figures on a spreadsheet. Disconnecting natural gas service has a human element to it as well. The process should not be viewed simply as a means to achieving a reduction in the Company's bad debt rate. The process should not be sanitized in this fashion. A "customer" is a household, a family, an individual, not merely an "account." A disconnection is the loss of home heating and of hot water, not merely the turn-off or removal of a meter.

Q. GIVEN THESE HUMAN COSTS, IS IT YOUR POSITION THAT A UTILITY SHOULD NEVER DISCONNECT SERVICE FOR NONPAYMENT?

A. No. That is not my testimony nor is that what I believe. However, given the human costs of the disconnection of service for nonpayment, I *do* urge that the disconnection of service should absolutely be the response of last resort. The disconnection of service should occur only when all other reasonable collection efforts have failed.

Q. PLEASE EXPLAIN WHAT YOU MEAN BY YOUR REFERENCE TO THE "HUMAN COSTS" OF SERVICE DISCONNECTIONS?

A. Looking at the human costs of shutoffs involves a consideration of the impacts of shutoffs on the full range of social interactions and household processes. The following is illustrative:

- **Homelessness:** The disconnection of utility service is one of the primary causes of homelessness. According to the seminal study of homelessness,[4] utility disconnections were cited nearly 8% of the time as being the precipitating cause of homelessness. Moreover, the study found that utility shutoffs were likely to be associated with other frequently cited causes of homelessness, such as a lack of housing in the household's income range and eviction for nonpayment.
- **Housing:** The disconnection of utility service represents a direct threat to being able to stay in one's home. Whether or not a family ends up homeless, a utility disconnection is frequently considered to be a breach of the rental contract, thus leading to an eviction-for-cause.
- **Forced mobility—education:** The disconnection of utility service often forces a household into an involuntary mobility status, where the family is forced to change homes. One of the primary impacts of this "forced mobility" is, in addition to its

[4] Energy Coordinating Committee and Institute for Public Policy Studies of Temple University, *An Examination of the Relationship Between Utility Terminations, Housing Abandonment and Homelessness* (June 1991).

expense to the household, the adverse impact on education attainment. A study of home energy unaffordability in Missouri reported that the frequently mobile student is significantly more likely to be "below grade level" in both math and reading proficiency.[5]

- ❖ **Cold weather heating:** A substantial number of households having their service disconnected in warm weather months do not successfully have their service *re*connected before the start of cold weather. Even though these households may remain in their homes, they face New England winter weather without basic home heating service.
- ❖ **Physical danger/safety risks:** The disconnection of utility service, including natural gas service in particular, leads to substantial safety risks. These risks arise primarily as households seek alternative sources of home heating, including kitchen stoves and ovens. The use of portable electric heaters as the primary space heating source in a home, however, is the most deadly activity. The National Fire Prevention Association (NFPA) reports that low-income status and the loss of utility service is one of the leading indicators of fatal fires, particularly for children.[6]
- ❖ **Hunger and nutrition:** Re-ordering household spending priorities in order to prevent or remedy the disconnection of service often leads to hunger and malnutrition. One study published in Pediatrics, the journal of the National Association of Pediatricians, reported that "data show that families reporting

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[5] Colton (1996). "The Road Oft Taken: Unaffordable Home Energy Bills, Forced Mobility And Childhood Education in Missouri." 2 ***Journal on Children and Poverty*** 23.

[6] See, e.g., Colton (2001). ***In Harm's Way: Home Heating, Fire Hazards, and Low-Income Households***, prepared for National Fuel Funds Network, and citations contained therein.

unheated days or threats of utility turnoff are more likely to report that their children were hungry or at risk for hunger than families without either experience."[7]

- **<u>Lost wages</u>:** The disconnection of utility service nearly always results in permanently lost wages and a decreased ability to pay future utility bills by the affected household.[8] Given the hourly wage employment of low- and moderate-income households, along with the near-universal lack of paid leave time or flexible work hours, time off associated with addressing an actual or pending disconnection of service leads to lost work hours that cannot be "made up" in the future.[9]
- **<u>Household illnesses</u>:** The disconnection (or threatened disconnection) of service often leads to household illnesses. In a series of Congressionally-funded studies by the National Energy Assistance Directors Association (NEADA),[10] nearly one-in-six energy assistance recipients were found to have experienced an illness because they kept their homes too cold. More than one-in-ten reported an illness of sufficient severity that they required medical treatment.

Q. IS YOUR IDENTIFICATION OF THE HUMAN COSTS BASED ONLY ON ANECDOTAL INFORMATION?

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[7] Frank, D., Neault, N., Skalicky, A., Cook, J., Wilson, J., Levenson, S., Meyers, A., Heeren, T., Cutts, D., Casey, P., Black, M., and Berkowitz, C. (2006). Heat or Eat: Low Income Home Energy Assistance Program and Nutritional Risk Among Children Under 3 Years Old. *Pediatrics*.

[8] See e.g., Colton (2003). ***The Economic Development Impacts of Home Energy Assistance: The Entergy States***, prepared for Entergy Services, Inc.; Colton (2003). ***The Economic Development Impacts of Home Energy Assistance in Colorado***, Colorado Energy Assistance Foundation, and citations contained therein.

[9] See e.g., Colton (2002). ***A Fragile Income: Deferred Payment Plans and the Ability-to-Pay of Working Poor Utility Customers***, prepared for National Fuel Funds Network, and citations contained therein.

[10] See, Apprise, Inc., ***National Energy Assistance Survey Report***(s) (2003, 2005, 2008, 2009), National Energy Assistance Directors Association and Apprise, Inc.: Princeton (NJ).

A. No. I have limited my discussion to those costs that have been identified through broad-scale, data-based research. Each of the impacts that I have identified above is supported by one or more data-based studies.

Q. WHAT DO YOU CONCLUDE?

A. Let me accept, simply for the sake of argument for the moment, that facilitating the disconnection of service and increasing the number of disconnections for nonpayment, can be an effective way for the Company to reduce its bad debt rate. The question that then marches forward is at what cost is this reduction in bad debt achieved? We know from a multitude of research that reducing bad debt through an increase in the number of disconnections for nonpayment will come at the cost of:

- Increasing homelessness;
- Increasing forced household mobility;
- Decreasing educational attainment amongst kids;
- Increasing forced evictions;
- Decreasing the availability of cold weather heating service;
- Increasing property damage, injury and death through fires;
- Increasing the rate and severity of illnesses;
- Increasing the rate and severity of hunger and nutritional inadequacy;
- Increasing employment displacement and lost wages.

The role of a state public utility commission is to promote the public interest. In this sense, the "public interest" involves not just cost reduction for the public utility. Instead, the "public interest" involves a weighing of the interests of the public utility and its customers. Given the data and discussion above, the public interest would call for a disapproval of the Company's proposal to reduce its disconnection threshold along with the Company's proposal to increase its number of service disconnections for nonpayment.

Q. WHEN YOU STATE THAT YOU WILL ACCEPT THE EFFECTIVENESS OF DISCONNECTIONS FOR NONPAYMENT AS A MECHANISM FOR CONTROLLING BAD DEBT "FOR THE SAKE OF ARGUMENT FOR THE MOMENT," DO YOU IN FACT ACCEPT SUCH EFFECTIVENESS?

A. No. In the Company's 2008 rate case in New Hampshire, NHLA asked the Company to provide certain data-based support for its proposed collection activities. NHLA asked the Company to provide all information within its custody or control, whether performed for the Company or for someone else:

- ❖ Documenting that service disconnections for nonpayment were an effective mechanism to reduce bad debt. The Company had no such data.
- ❖ Documenting that service disconnections for nonpayment were an effective mechanism to control arrears. The Company had no such data.
- ❖ Documenting that service disconnections for nonpayment were a cost-effective mechanism to control bad debt. The Company had no such data.
- ❖ Documenting that service disconnections for nonpayment were a cost-effective mechanism to reduce arrears. The Company had no such data.

Moreover, NHLA met with the Company (along with the PUC Staff and the Office of Consumer Advocate) in July 2009 to discuss the Company's credit and collection activities. The Company provided no such data in those discussions either.

Q. IS THERE EMPIRICAL EVIDENCE TO SUPPORT THE CONTRARY CONCLUSION—THAT DISCONNECTIONS FOR NONPAYMENT ARE NOT AN EFFECTIVE MEANS OF CONTROLLING ARREARS OR BAD DEBT?

A. Yes. In 2004, the Pennsylvania legislature enacted the "Responsible Utility Consumer Protection Act." That statute, amongst other things, facilitated a utility's authority to disconnect service to nonpaying customers. The statute required the Pennsylvania PUC to report on the implementation of, and outcomes generated by, the statute every two years. The PUC filed reports in 2006 and 2008.[11] The implementation of the Pennsylvania statute resulted in an increase in electric disconnections for nonpayment by more than 60%. It resulted in an increase in natural gas disconnections for nonpayment by more than 50% for companies other than Philadelphia Gas Works (PGW). PGW reported a decrease in service disconnections of 21%. According to the PUC's 2008 biannual report, both the level of electric disconnections and the level of non-PGW natural gas disconnections were "record levels."

Q. WHAT DOES THE PENNSYLVANIA DATA SHOW ABOUT THE IMPACT OF INCREASING THE NUMBER AND RATE OF SERVICE DISCONNECTIONS?

A. The Pennsylvania PUC reported that despite an increase of more than 60% in the number of disconnections for nonpayment, "the overall collection performance for the electric industry has shown some deterioration since the passage of Chapter 14, offsetting the improvements shown in the pre-Chapter 14 period from 2002-04." The Pennsylvania Commission reported that "it does not appear that the electric industry's strategy of terminating a record high number of customers since the passage of Chapter 14 has been successful."

In addition, the Commission reported that while the "overall collections performance for the gas industry improved from 2004-07. . .this improvement reflects the continuation of a trend that had already begun in the pre-Chapter 14 period from 2002-04." Finally, the Commission reported that for PGW, which was the only utility to *decrease* the number of disconnections: "The analysis of the various collections data shows a dramatic pattern of improvement for PGW since the passage of Chapter 14. PGW has outperformed its peer companies in terms of the magnitude of this improvement. . .Significantly, PGW stands out for decreasing the number of terminations by 21.1% while improving collections performance since the passage of Chapter 14, including a 27.0% decrease in its gross residential write-offs ratio."

[11] See e.g., Pennsylvania Public Utilities Commission (2008). ***The Second Biennial Report to the General Assembly and the Governor Pursuant to Section 1415: Implementation of Chapter 14***, Pennsylvania PUC: Harrisburg (PA). The third biennial report (2010) report is expected in December 2010.

The experience of the Pennsylvania utilities is consistent with research done by Wisconsin Public Service. In its study of payment-troubled customers,[12] Wisconsin Public Service found that the disconnection of service would be an effective collection tool for only 15% of its residential customers. A recent study of payment-troubled customers for Tacoma Public Utilities (TPU) also found that extending the terms of deferred payment plans resulted in greater revenue and reduced bad debt as compared to its existing process of service disconnections.[13]

Q. WHAT DO YOU CONCLUDE?

A. Company witnesses McCarthy and Hirschey appear to accept as an article of faith that increasing the number and rate of service disconnections for nonpayment will have the effect of reducing arrears as well as reducing the level of bad debt. The testimony of these witnesses, however, is just that. . .an assertion of an article of faith and assumptions. The existing empirical research, compiled over many years and multiple utilities, has consistently found that this "faith" is misplaced. Not only can the Company provide no evidence supporting its proposed increase in the rate and number of service disconnections for nonpayment, but the existing research is contrary to what the Company is proposing.

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[12] Ron Gross (1997). ***Win-Win Alternatives for Credit & Collections***. Wisconsin Public Service Corporation: Green Bay (WI).

[13] Colton (2009). ***An Outcomes Planning Approach to Serving TPU Low-Income Customers***, prepared for Tacoma Public Utilities, Tacoma (WA).

B. THE BUSINESS COSTS OF DISCONNECTIONS.

Q. DOES THE PROCESS OF DISCONNECTING SERVICE FOR NONPAYMENT SERVE A REGULATORY OBJECTIVE OTHER THAN THE CONTROL OF BAD DEBT?

A. Yes. The disconnection of service for nonpayment is just like any other aspect of utility service. It should not only be effective at achieving the objective the utility is seeking to accomplish, it should also help the Company deliver least-cost service overall. In this respect, deciding on whether to use the disconnection of service as a collection tool is no different than deciding whether to self-insure or buy insurance; deciding whether to use long-term debt or equity for capital budget items; deciding whether to enter into long-term or short-term supply contracts; or any other financial decision. The question is not only whether it "works" (which has been put into question above), but whether it delivers least-cost service overall.

Q. HOW MIGHT THE DISCONNECTION OF SERVICE BE COUNTER-PRODUCTIVE TO THE COMPANY'S OWN SELF-INTERST IN THIS RESPECT?

A. In this respect, using the disconnection of service as a collection tool can be counter-productive to the Company's own self-interest (and that of its ratepayers) in a variety of circumstances. First, using the disconnection of service as a collection mechanism is counter-productive in those instances where non-payment is attributable to an inability-to-pay rather than to an unwillingness to pay. An inability to pay occurs when household resources are insufficient to cover household expenses. Research by Wisconsin Public

Service Company, for example found that the disconnection of service would be an effective collection tool for only 15% of its payment-troubled customers.

In these inability to pay situations, not only are the dollars spent on the collection process ineffectively used, but also the collection process, and its associated fees, results in further impeding the customer's payments rather than facilitating such payment, as scarce customer resources are siphoned away from bill payment and devoted to other fees, lost wages, and associated household expenditures. Research for gas companies such as Citizens Gas and Coke Utility[14] and Xcel Energy[15] has found that traditional credit and collection processes actually generate fewer dollars of revenue than do processes that seek to address the underlying inability to pay.

Q. IS THIS A "LOW-INCOME" PROBLEM?

A. Not in New Hampshire. The lack of sufficient resources to cover total basic household expenditures is not exclusively a low-income phenomenon. It is possible to define inability to pay by reference to a "basic family needs budget" for New Hampshire households. Through the Economic Policy Institute ("EPI"), I have derived a basic family needs budget for three household types in two communities (as well as for "rural" New Hampshire). I looked at the following:

- A 2-person household consisting of one parent and one child;

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[14] Colton (2009). ***An Outcome Evaluation of Indiana's Low-Income Rate Affordability Programs: 2008 – 2009***, prepared for Citizens Gas and Coke Utility, Northern Indiana Public Service Company, Vectren Energy Delivery Indianapolis (IN).

- A 3-person household consisting of one parent and two children; and
- A 4-person household consisting of two parents and two children.

These basic family needs budgets are set forth in Schedule RDC-10. I compare these basic family needs budgets to the Federal Poverty Level for 2008. As is evident, the basic family needs budgets in New Hampshire do not simply exceed 175% of the Federal Poverty Level, they fall into a range around 250% of the Federal Poverty Level.

Q. DOES THIS SIMPLY INDICATE THE NEED FOR MORE RESOURCES SUCH AS LIHEAP AND R-4 DISCOUNTS?

A. While additional resources through programs such as the Low-Income Home Energy Assistance Program (LIHEAP) and the R-4 rate would help income-eligible customers in this respect, the need for these additional resources is not the correct conclusion to draw in the context within which I present this data. The conclusion to draw is that, consistent with the two principles I have articulated above –(1) that the disconnection of service should be a collection tool of last resort; and (2) that the disconnection of service should contribute to the provision of least-cost service—the proper collection response involves making a determination of whether customer service activity rather than collection activity will generate greater payments at lesser cost. I will discuss such customer service activities in greater detail below.

[15] Colton (2010). ***Interim Report on Xcel Energy's Pilot Energy Assistance Program (PEAP): 2010 Interim Evaluation***, prepared for Xcel Energy: Denver (CO).

Q. IS THERE A SECOND WAY IN WHICH THE COMPANY'S PROPOSAL TO INCREASE THE NUMBER OF DISCONNECTIONS FOR NONPAYMENT ARE NOT IN THE COMPANY'S OWN SELF-INTEREST?

A. Yes. To the extent that a disconnection of service occurs without a corresponding reconnection, the Company could well be losing partial payments sufficient to cover the customer's commodity cost of gas plus make some contribution to the fixed costs of the system. The Company benefits from having a customer on the system making *some* fixed cost contribution rather than having the customer off-system and making no payment at all.

Q. DOES THE COMPANY TEND TO RECONNECT A SIGNIFICANT PROPORTION OF THE RESIDENTIAL ACCOUNTS IT DISCONNECTS?

A. No. Schedule RDC-11 presents data that I have on the number of disconnections and reconnections by the Company over a two and one-half year period of time. The Company tends to reconnect fewer than one-half of the accounts it disconnects. Indeed, in 16 of the 29 months for which I have data, the Company reconnected, at most, only one-in-three customers it had disconnected.

Q. DOES THE COMPANY CONSIDER THE IMPACT OF OBTAINING A FIXED COST CONTRIBUTION WHEN IT CONSIDERS WHETHER AND WHEN TO DISCONNECT SERVICE?

A. No. The Company does not consider the advantages to the utility of obtaining payments that cover the commodity cost of gas and make a fixed cost contribution prior to disconnecting service for nonpayment. Consider that the Company makes its greatest number of disconnections during the warm weather months of April through October. (Schedule RDC-11). These are, however, precisely the months in which the Company is most likely to get a contribution to fixed costs over and above covering the cost of gas. In response to Staff discovery, the Company provided a month-by-month report of the cost of gas, along with the proportion of the total bill which that cost of gas represented. The data is presented in Schedule RDC-12. It is important to note the seasonal nature of the commodity gas percentages. During the warmer weather months (May through October), the commodity cost of gas is a much smaller percentage of the total monthly bill. Keeping the customer on the system, even if making partial payments, is much more likely to generate fixed cost contributions that benefit all customers. In these circumstances, it does not necessarily benefit all consumers to seek to disconnect service in the absence of full payment.

Q. IS IT YOUR TESTIMONY THAT THE COMPANY SHOULD ROUTINELY ACCEPT PARTIAL PAYMENTS TOWARD CURRENT BILLS IN THE SUMMER MONTHS AS A MEANS OF AVOIDING THE NEED TO DISCONNECT SERVICE?

A. No. That is not my testimony; nor is that my belief. My testimony is that a blanket approval to disconnect customers with an arrearage of $125 or more cannot be assumed to lead to maximum collections and the provision of least-cost service. Particularly in light of our two guiding principles –(1) that disconnection should be used as a tool of last resort; and (2) that disconnections should lead to least-cost service—the Company should take the opportunity presented by the warm weather months, and the advantage of generating mutual advantage by accepting even partial payments that exceed the commodity cost of gas, to work with customers to resolve arrearages through actions short of service disconnections.

Q. IS THERE A THIRD WAY IN WHICH THE DISCONNECTION OF SERVICE IS COUNTER-PRODUCTIVE TO THE SELF-INTEREST OF THE COMPANY?

A. Yes. The disconnection of service can be counter-productive as a collection device for a customer that would have repaid his or her bills even in the absence of the shutoff. If an account that would have self-cured is instead disconnected, the Company fails to generate *new* revenue that would not have been generated even in the absence of the disconnection. In addition, the Company generates the risk of losing payments that may have been made in the absence of the disconnection.

Q. ASIDE FROM THE ACTUAL DISCONNECTION OF SERVICE, IS THERE ANY WAY IN WHICH REDUCING THE DISCONNECTION THRESHOLD FOR LOW-INCOME CUSTOMERS WOULD BE COUNTER-PRODUCTIVE TO THE COMPANY'S OWN SELF-INTEREST?

A. Yes. Exempting R-4 customers from the reduction in the shutoff threshold would very likely benefit the Company. A finite amount of external resources are available to help low-income customers retire their arrears in the event that they receive a shutoff notice. Funds from programs such as LIHEAP, the Federal Emergency Management Agency (FEMA) grant program, and the U.S. Department of Housing and Urban Development's

(HUD's) Emergency Shelter Grant (ESG) program all provide assistance in the event that a low-income customer receives a utility shutoff notice. Each of these programs, however, is currently under-funded relative to the requests for assistance. As with the LIHEAP basic cash grant, increasing the number of applications will not result in an increase in the financial resources available to provide assistance. By reducing the shutoff threshold for R-4 customers, and increasing the number of low-income customers receiving shutoff notices, these limited resources will be subjected to an increased demand for assistance. The result will be to further dilute the available assistance to payment-troubled customers, thus leaving fewer grant dollars available to help customers substantially in arrears. The end-result of the Company's reduced shutoff threshold is likely to be an increase in the number of low-income shutoffs as funds are siphoned away from being available for customers whose outstanding balances are well in excess of the customer's ability to pay.

Q. WHAT DO YOU CONCLUDE?

A. Based on the data and discussion I present above, I conclude that the Company has not documented either the need for, or the benefits from, increasing the number of service disconnections for nonpayment on its system by reducing the disconnection threshold to $125. The proposal to reduce the disconnection threshold from $500 to $125 should be disapproved. At a minimum, the proposal should be disapproved for R-4 customers.

Q. IN REACHING THIS CONCLUSION, DID YOU FURTHER REVIEW ANY INTERNAL COMPANY DOCUMENTS ON HOW A REASONABLE COLLECTIONS EFFORT MIGHT BE DEVELOPED?

A. Yes. In its 2008 rate case, the Company was asked to provide a copy of all written documents that explain, assess or otherwise discuss the criteria by which the Company uses to assess the effectiveness of its current credit and collection efforts. The Company provided an excerpt of testimony provided by Kimberley Ahern in Docket DG-07-50. That testimony indicated that the Company would base its collection effort on:

- A review of "certain key collection performance indicators";
- Detailed action plans designed to "address negative trends"; and
- A policy to address "critical accounts" based on high dollar and aged receivables.

Clearly, the Company's proposal in this proceeding does not comport with any of those three criteria.

- The proposed reduction in the disconnection threshold to $125 is not based on any review of "key collection performance indicators" associated with accounts with arrears of $125;
- The proposed disconnection of accounts with $125 in arrears does not base its treatment action on "negative trends";
- The proposal to reduce the disconnection threshold to $125 does not select "critical accounts."

NHLA asked the Company to provide all workpapers that underlie the Company's proposal to reduce the disconnection threshold to $125; the Company had no such workpapers or supporting analysis to provide. (Locke 1-24). The Company's proposed collection "plan" does not align with its own articulation of criteria by which to judge the effectiveness of collection efforts.

C. RECOMMENDATIONS REGARDING THE COMPANY'S COLLECTION PLAN.

R. WHAT DO YOU RECOMMEND THE COMMISSION DO WITH RESPECT TO THE COLLECTION PLAN THAT THE COMPANY HAS PROPOSED IN THIS PROCEEDING?

A. I make three recommendations in this proceeding.

1. First, I recommend that the Commission disapprove the Company's proposal to decrease its disconnection threshold from $500 to $125. The Company has not documented that this reduction will improve collections or result in the least-cost provision of service. I have discussed the basis for this recommendation in detail below.
2. Second, I recommend that the Commission condition its approval of the revenue requirement associated with enhanced collection efforts on the adoption of the recommendations set forth in Appendix C. Appendix C is the set of recommendations provided by NHLA to the Company in July 2009. I discuss the basis for these recommendations in the Appendix. I do not repeat that discussion here.
3. I recommend that the Commission condition any approval of the revenue requirement associated with enhanced collections efforts on additional efforts to enroll customers in the R-4 rate.

I explain the basis for my third set of recommendations in more detail below.

Q. WHAT ACTIVITIES SHOULD THE COMPANY PURSUE IN COMPLIANCE WITH YOUR THIRD RECOMMENDATION REGARDING THE ENROLLMENT OF CUSTOMERS INTO THE R-4 RATE?

A. Pursuant to this recommendation, the Commission should require the Company to undertake the following activities as a prerequisite to approving the additional revenue requirement associated with the Company's collection program:

- ❖ Prior to a disconnection of service for nonpayment, the Company should certify that the customer is not eligible for the R-4 discount (and that retroactive application of the R-4 discount would not eliminate arrears or reduce arrears below the disconnection threshold).

- ❖ The Company should be directed to solicit specified third party certification of R-4 eligibility in addition to receiving LIHEAP certification. As part of this effort, approval of the collections budget should be conditioned on the Company establishing as part of the collection budget, a budget of $75,000 to allow a capitated payment to CAAs to enroll non-LIHEAP customers in the R-4 rate based on existing program eligibility. Moreover, approval of the budget should be conditioned on the Company accepting Public Housing Authority (PHA) certification of public and assisted housing units.

- ❖ "Plain English" notice of R-4 in any circumstance in which the Company has a reasonable expectation of communication prior to the disconnection, or threat of disconnection for nonpayment.

I will explain each of these recommendations briefly below.

Q. PLEASE EXPLAIN YOUR RECOMMENDATION REGARDING THE CERTIFICATION OF CUSTOMER ELIGIBILITY FOR THE R-4 DISCOUNT PRIOR TO THE DISCONNECTION OF SERVICE.

A. The disconnection of service for nonpayment should be a collection tool of last resort. If alternative mechanisms exist to generate payment without resort to the disconnection of service, the Company should pursue those alternatives. One such alternative is to enroll customers on deferred payment agreements. Deferred payment agreements are often not reasonable mechanisms for low-income customers to use, given that such agreements require not only a regular payment toward arrears, but full payment of the current bill at the same time. In those instances where an arrearage exists because a low-income customer cannot afford to pay the current bill, to respond to that nonpayment by *increasing* the bill would be a recipe for failure. In order to attract low-income customers to deferred payment agreements, and particularly to deferred payment arrangements that are likely to succeed, prior to the disconnection of service, the Company should certify that the customer is not eligible for the R-4 discount. If the customer is eligible for the R-4 discount, the Company should enroll that customer on the R-4 rate with a corresponding reasonable deferred payment arrangement.

Q. WHY DO YOU VIEW THE ENROLLMENT OF A CUSTOMER INTO R-4 WITH A DEFERRED PAYMENT ARRANGEMENT AS MORE LIKELY TO GENERATE COMPLETE BILL PAYMENT?

A. Ample information documents that reducing low-income energy bills to more affordable levels increases the customer's success in making payments. Consider, for example, the evaluation of the New Jersey Universal Service Fund (USF).[16] The 2006 evaluation of

[16] Apprise, Inc. (2006). ***Impact Evaluation and Concurrent Process Evaluation of the New Jersey Universal Service Fund***, prepared for the New Jersey Board of Public Utilities, Apprise, Inc: Princeton (NJ).

the New Jersey USF expressly found that increasing the percentage of income burdens charged to USF participants had an adverse impact on the ability of USF participants to maintain payment compliance under the program. The New Jersey evaluation reported:

- "More than 80% of households with an effective [energy burden] below 3 percent covered 100 percent or more of their annual bill. Less than 60 percent of households with an effective coverage rate at or above 8 percent covered 100 percent of their annual bill."

- While 26% of the participants with net energy burdens exceeding 8% of income paid between 50% and 90% of their bill, only 6% of households with energy burdens of between 2% and 3% had coverage rates that low.

The USF evaluation reported the same types of results for gas/electric combination USF participants.

Q. WHAT IS YOUR CONCLUSION?

A. The conclusion based on the data and discussion above is that for the low-income segment of the population, rather than responding to the nonpayment through the disconnection of service, which is almost bound to fail to generate complete payment, a more reasonable, and more successful, approach is to enroll customers on the R-4 rate with a corresponding payment plan.

In addition to the increased success in generating payments, this recommendation is consistent with the Company's proposal to create a dedicated special unit to address the needs of low-income customers. Both proposals seek to implement the recognition that it benefits the Company more to enroll customers on the R-4 rate, and to ensure that those customers receive the assistance for which they are eligible, than it does for the Company to disconnect their service for nonpayment of a bill.

Q. PLEASE EXPLAIN YOUR RECOMMENDATION REGARDING THE CERTIFICATION OF R-4 ELIGIBILITY BY THIRD PARTIES.

A. In establishing the R-4 rate, the Commission established not only automatic eligibility for LIHEAP recipients, but also categorical eligibility for low-income natural gas customers who participate in designated additional programs. The R-4 rate is available to heating customers enrolled in at least one of the following programs: (1) fuel assistance, (2) electric assistance, (3) Supplemental Security Income (SSI), (4) Women, Infants and Children (WIC), (5) commodity surplus foods (for women, infants and children), (6) Temporary Assistance to Needy Families (TANF), (7) Housing Choice vouchers (section 8); (8) Head Start, (9) Aid to Permanently and Totally Disabled, (10) Aid to the Needy Blind, (11) Old Age Assistance, and (12) Food Stamps (now known as SNAP, the Supplemental Nutrition Assistance Program).

Unlike LIHEAP, which provides a direct-vendor payment to the utility each year, thus allowing the utility to comprehensively know what customers should be enrolled on the R-4 rate, the Company has no reason to have knowledge of what customers might be receiving assistance through one or more of the other designated programs establishing categorical eligibility. By “categorical eligibility,” I mean that documentation of participation in one of these programs is sufficient to establish R-4 eligibility without independent income verification by the Company.

Even though LIHEAP serves only a fraction of the low-income population, the overwhelming majority of customers taking service under the R-4 rate enter the program through LIHEAP. A tiny proportion of R-4 customers enter the program through one of the non-LIHEAP categorical eligibility programs. Given the Company's willingness to spend nearly $800,000 to terminate service to accounts for nonpayment, it would be reasonable for the Company also to engage the collaboration of partners who can help enroll non-LIHEAP customers in the R-4 rate. As a condition of approval of the proposed additional collection expenditures, I propose a two-step collaboration:

Q. WHAT IS THE FIRST STEP OF THE COLLABORATION YOU PROPOSE?

A. First, I propose that the Company devote an additional budget of up to, but not to exceed, $75,000 to pay Community Action Agencies (CAAs) to certify R-4 eligibility based on categorical eligibility program participation. CAAs routinely provide a full range of economic and social services to low-income households, at which time they would become aware of whether the household would participate in one of the program establishing categorical eligibility. This budget would compensate the CAAs, on a capitated basis, for certifying that categorical eligibility to the Company for purposes of enrolling customers in R-4. Given federal restrictions on funding, which prohibit agencies such as CAAs from using federal dollars for programs outside the purview of the funding source –a CAA, for example, could not use LIHEAP administrative dollars to enroll a non-LIHEAP recipient into the R-4 program—the lack of administrative dollars to support non-fuel assistance would prevent the CAAs from performing this function.

Q. WHAT IS THE SECOND STEP OF THE COLLABORATION YOU PROPOSE?

A. Second, I propose that the Company annually request each Public Housing Authority (PHA) in the Company's service territory to certify to the utility which service addresses comprise public and assisted housing units heated with natural gas, the tenants of which would be categorically eligible for the R-4 discount.[17] Upon receipt of this annual PHA certification, the Company should enroll the occupants of such units in the R-4 discount. Other than having the Company make an annual request for such certification, it would be the responsibility of the PHA to provide the certification. The limit of the Company's responsibility would be to enroll the tenants of the certified housing units in the R-4 rate upon receiving the list of certified units.[18]

Q. WHY ARE THESE TWO ADDITIONAL ENROLLMENT STEPS REASONABLE CONDITIONS TO ANY APPROVAL OF THE COMPANY'S PROPOSED INCREASED SPENDING ON COLLECTION ACTIVITIES?

A. Since the Company is placing low-income customers at greater risk of disconnection of service for nonpayment, it is reasonable to adopt these two modest enrollment processes. I do not recommend an expansion of the R-4 discount. Nor am I recommending that eligibility for the R-4 discount be extended beyond those programs which the Commission has already found to represent a reasonable means of establishing

[17] Public and assisted housing benefits are tied to the physical housing unit, not to the household. Accordingly, the PHAs would need only certify which service addresses constitute public and assisted housing.

[18] In the alternative, an annual request to the various Public Housing Authorities could be routinely generated by the Commission Staff. In these circumstances, the limits of the Company responsibility would be to enroll the tenants of the units certified by the PHA to the Company as being public and assisted housing units.

categorical eligibility. The process I propose is simply based on the proposition that rather than seeking only to disconnect service to a low-income customer once that customer is in arrears, it is more reasonable to prevent the arrears by extending the R-4 discount, at existing levels, to categories of customers that the Commission has already determined merit receiving the discount.

Q. PLEASE EXPLAIN YOUR RECOMMENDATION REGARDING A "PLAIN ENGLISH" NOTIFICATION OF R-4 AVAILABILITY.

A. Given that the Company's collection initiatives will rely more heavily on the disconnection of service for nonpayment as a collection tool, the Company should make particular efforts to notify their residential customer base of the potential to enroll in the R-4 rate as a means of reducing bills to a more affordable level. Information about the R-4 rate should be provided in "plain English" in instances where the Company could reasonably be expected to be communicating with a low-income customer. Both "shutoff notices" and "reminder notices" should contain plain English notice of the availability of the R-4 discount and what enrolling in that discount might mean in terms of a bill reduction given historic usage by the customer. A plain English notice should also be included in any written correspondence with a customer concerning a deferred payment agreement. By making bills more affordable to low-income customers through the R-4 rate, the Company will accomplish one of two objectives: (1) either avoiding an arrears entirely that may have led to the disconnection of service; or (2) reducing the arrears subject to a pending disconnect notice that would allow those arrears to be retired (or, at a minimum, reduced below the disconnect threshold). I have attached proposed language for a Plain English notice as Schedule RDC-13.

Q. DO YOU APPROVE OF THE COMPANY'S PROPOSAL TO "INCREASE HEAP COVERAGE"?

A. I do not ***dis***approve of the Company's commitment to "increase coverage" by the federal Low-Income Home Energy Assistance Program (LIHEAP). Increasing participation in LIHEAP would have the added impact of increasing participation in the R-4 rate. However, the Company should not over-state the financial advantages of increasing participation in the federal LIHEAP program. LIHEAP is a federal block grant program. As a block grant program, Congress provides New Hampshire with a designated amount of funding each year. That funding does not expand because the number of participants expands. If the number of LIHEAP participants increases, the only available response on the part of the LIHEAP program is to reduce the level of the LIHEAP grant per participant. Expanding LIHEAP coverage is a zero sum game. The Company's proposal to "increase HEAP coverage" will not bring additional HEAP dollars into the state of New Hampshire.[19]

Q. IF THE COMPANY SEEKS TO INCREASE FEDERAL RESOURCES AVAILABLE TO PAY PAST-DUE HOME ENERGY BILLS, IS THERE A MORE

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[19] It is possible that increased National Grid HEAP outreach would increase the HEAP dollars received by National Grid customers by increasing HEAP recipients on the National Grid system. In the absence of a downward adjustment in the overall HEAP benefit, however, this can only be accomplished by having ***fewer*** customers of some other utility receive HEAP. On a statewide basis, increasing the number of HEAP recipients will not increase the amount of HEAP dollars flowing into New Hampshire.

EFFECTIVE OUTREACH EFFORT THAN SEEKING TO EXPAND HEAP COVERAGE?

A. Yes. Directing outreach to payment-troubled customers for the Earned Income Tax Credit (EITC) would be much more likely to increase total household resources available to pay past-due utility bills. In addition to reaching "low-income" customers, directing EITC outreach to payment-troubled customers has the added advantage of reaching the near-poor or working poor who may not be eligible for LIHEAP, but who have insufficient resources to remain current on their home energy bills. I discuss the plight of these near-poor customers (who would not be eligible for R-4 and would not be eligible for LIHEAP) in more detail above. I briefly discuss EITC outreach in Appendix C. I have attached as Appendix D, as well, a discussion of a utility effort to promote the EITC which I prepared for a moderate-sized combination gas/electric/water utility in 2009. Expenditures on EITC outreach will certainly be more effective, and more cost-effective, than the equivalent amount of expenditures on pursuing the disconnection of service.

PART 4. SUMMARY OF RECOMMENDATIONS.

Q. PLEASE EXPLAIN THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?

A. In this section of my testimony, I collect and summarize each of the recommended actions presented in my testimony and exhibits. Those recommendations include the following:

- ❖ Limit any increase in the fixed monthly customer charge for the R-1, R-3 and R-4 customer classes to the percentage increase, if any, in overall rates approved in this proceeding;

- ❖ Adopt a flat block rate structure for the R-3 and R-4 customer classes.

- ❖ Disapprove the Company's "decoupling" proposal. In the alternative to disapproval:

  - o Exempt the R-4 customer class from paying the decoupling charge; or, in the alternative
  - o Apply the R-4 discount to the decoupling charge.

- ❖ Disapprove the proposed automatic adjustment clauses. In the alternative to disapproval:

  - o Apply the R-4 discount to all charges collected through the automatic adjustment clauses.

- ❖ Disapprove the Company's proposal to reduce its disconnection arrears threshold from $500 to $125. In the alternative, continue the $500 disconnection threshold for R-4 customers.

- ❖ Condition approval of the Company's requested $776,886 expenses for enhanced collection activity on a binding agreement to undertake the following additional activities:

  - o Prior to the disconnection of service, certify that the customer is not eligible for the R-4 discount and that the application of the R-4 discount would not eliminate the underlying arrears or reduce those arrears below the treatment threshold.

  - o Establish a budget of $75,000, which may be added to the $776,886, to compensate Community Action Agencies on a capitated basis for enrolling low-income customers in the R-4 rate using existing program eligibility criteria.

  - o Provide an annual solicitation to all local Public Housing Authorities (PHAs) within the Company's service territory requesting those PHAs to certify the service addresses representing public and Section 8 housing units heated with natural gas. Enroll the tenants living at those service addresses in the R-4 rate.

  - o Include a "plain English" notice of R-4 availability in any circumstance in which the Company has a reasonable expectation of communication prior to the disconnection, or threat of disconnection for nonpayment.

- ❖ Condition approval of the Company's requested $776,886 expenses for enhanced collection activity on a binding agreement to adopt the following collection enhancements from Appendix C:

- Increase the penetration of budget billing within the residential customer class by, at a minimum: (1) removing any arrearage restrictions on the right to enter into budget billing; (2) removing any time limitation restrictions on the months in which a customer may begin budget billing; (3) modifying any requirement that a budget billing agreement must operate for a full 12 months.

- Perform and submit to the Commission an annual pre-winter survey of residential accounts that have been disconnected, and not reconnected, since the beginning of the last winter heating season to determine whether someone is living at that service address, whether that resident is taking service unlawfully, whether the resident remains without utility service entering the winter heating season, or whether the housing unit has been abandoned. This winter survey should occur immediately before the start of each winter heating season.

- Develop and submit a plan to the Commission, within 90 days after a final order in this proceeding, of how the Company plans to increase the penetration of deferred payment arrangements within its payment-troubled residential population.

- Prior to the disconnection of service for nonpayment, provide a notice of the availability of the Earned Income Tax Credit (EITC) to all payment-troubled customers with arrears at or above the disconnect threshold.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.