National Grid

The Narragansett Electric Company

INVESTIGATION AS TO THE PROPRIETY OF PROPOSED TARIFF CHANGES

Testimony and Schedules of:

William F. Dowd
Kimbugwe A. Kateregga

Book 4 of 9

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nationalgrid

Testimony of
William F. Dowd

PRE-FILED DIRECT TESTIMONY

OF

WILLIAM F. DOWD

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I. Introduction and Qualifications

Q. Mr. Dowd, please state your name and business address.

A. My name is William F. Dowd. My business address is 52 Second Avenue, Waltham, Massachusetts 02451.

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

A. I am employed by National Grid USA Service Company, Inc., a subsidiary of National Grid USA, and currently hold the position of Senior Vice President of Labor Relations. My responsibilities include overseeing labor relations for National Grid, including Narragansett Electric Company. Throughout this testimony, I will refer to National Grid USA and its subsidiaries as "National Grid." For purposes of clarity, where I intend to refer to Narragansett Electric Company, I will refer to it as the "Company."

Prior to being appointed to my current position in August 2007, I was the Vice President of Compensation and Benefits for National Grid. In that capacity, I developed and implemented human resource strategy, policies and procedures relating to employee compensation and benefits for both union and non-union personnel in the United States, which included National Grid's New England and Upstate New York utility operations.

Q. Please describe your educational background and business experience.

A. I received a BA degree from Bridgewater State College in Bridgewater, MA and a Masters Degree in Public Administration from Suffolk University in Boston, MA. I joined National Grid's predecessor, the former New England Electric System, in

December 1984 and have held a variety of professional and managerial positions in Human Resources since then, primarily focused on employee benefits, compensation and labor relations.

Q. Have you previously testified before the Public Utilities Commission ("Commission") or any other regulatory commissions?

A. I have not previously testified before the Commission. However, I have testified before both the New York Public Service Commission and the Massachusetts Department of Public Utilities.

II. Purpose of Testimony

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support the Company's revenue requirement as it relates to employee compensation, including wages and benefits, and to discuss National Grid's efforts to manage and control the costs of these programs. Specifically, my testimony discusses the Company's policies regarding employee wages and benefits and the costs associated with them for the Test Year ending December 31, 2008 and the Rate Year ending December 31, 2010

III. Overview of National Grid's Approach to Wages and Benefits

Q. Please describe National Grid's philosophy relating to employee wages and benefits and how it manages those costs.

A. National Grid has developed a policy that it calls its Total Rewards Program to provide employees with an overall package of wages and benefits that is market competitive, offers flexibility and choice and supports a high performance culture by directly linking performance to rewards. By maintaining a comprehensive and competitive approach to compensation that establishes appropriate levels of pay and benefits, National Grid can attract and retain a high quality workforce and motivate employees to improve their performance. At the same time, such an approach is cost-effective because it provides compensation that is no greater than that paid by comparable employers, but structures the compensation so that it is tied to achievement of goals that are consistent with corporate objectives.

Q. Please describe National Grid's efforts to manage or control the cost of the wages and benefits it offers.

A. As part of its efforts to control the cost of our overall compensation structure, National Grid monitors the marketplace to ensure that its benefit programs are both cost-effective and sufficient to enable it to attract and retain the highly skilled workforce needed to deliver excellent customer service and achieve the financial success required by the capital markets.

The most recent changes to National Grid's pay and benefits structure were implemented as a result of the merger process associated with the acquisition of KeySpan Corporation ("KeySpan"). As part of the integration process related to that merger, National Grid commissioned a market analysis of its wages and benefits to help align the two

companies. While the overall value of the compensation programs at the two companies was roughly equivalent prior to the merger, the relationship between pay and benefits differed, with legacy National Grid providing more value to employees through benefit plans and less value through variable pay[1]. The market analysis showed that the legacy KeySpan approach of providing less costly benefit plans but a greater level of variable pay was more in line with what other employers in the market were providing. National Grid believed that changing its approach to be more in line with the prior KeySpan approach would be beneficial, not only because it would better position the merged company to be competitive with the compensation structure offered by other similar employers, but also because it would better align the compensation structure with National Grid's efforts to achieve its corporate goals. As a result, National Grid undertook to modify the benefits it offers by reducing the fixed cost components of those programs while at the same time increasing the variable component of pay.

Q. What specific changes did National Grid make to its benefit plans to reduce the level of fixed costs as it shifted more compensation to the variable pay component?

A. During fiscal 2009 (the twelve months ended March 31, 2009), National Grid made a number of changes in its medical, dental, and life insurance programs to reduce costs. Among other things, National Grid made the following changes:

- Co-pays for office visits and prescription drugs under the health care program were increased, and a deductible/coinsurance arrangement was implemented for in-patient hospital care.

[1] Base pay levels were relatively similar.

- The prescription drug program was carved out of each medical plan and was replaced in its entirety with CVS Caremark after undertaking a competitive bidding process. This approach made it possible for National Grid to generate savings by leveraging a volume discount.

- In the dental program, employee premium sharing was increased from 20% to 35%, benefits in the major restorative category were reduced to 50% from 60%, and adult orthodontia was eliminated.

- In the life insurance program, the coverage level was reduced from two times annual base bay to one times annual base pay.

Q. Please explain National Grid's approach to managing employee wage levels since it acquired KeySpan.

A. As I indicated earlier and will discuss in more detail later in my testimony, National Grid's compensation program includes two major wage components—base pay and variable pay (sometimes called incentive pay). Both components are critical to meeting National Grid's overall goals for the compensation program and must be considered when comparing National Grid's compensation levels to market data.

Q. Please explain why National Grid includes a variable pay component as a significant part of total compensation for its employees.

A. As I noted earlier, by strengthening the link between compensation and the achievement of personal and corporate objectives, National Grid is seeking to drive employee performance in a manner that enhances its ability to meet its customer service and overall corporate objectives. Such an approach is common today, and in fact, at companies the size of National Grid, nearly 100% of surveyed companies had variable pay plans, and over 90% of employees at those companies participated in those plans.

Q. There has been significant public discussion in recent months regarding the role of incentive compensation and the payment of bonuses. How do those issues relate to the compensation structure that National Grid has implemented?

A. I am aware of the recent negative press coverage surrounding bonus compensation paid at some financial companies, and the fact that this has caused some people to regard incentive compensation programs as synonymous with over compensation. Contrary to the concerns that have been raised for some of those compensation programs, however, National Grid's approach to variable pay is designed to ensure that (1) employees' total compensation is reasonable after considering base and variable pay *on an aggregate basis*, (2) variable pay is based on both the overall performance of the company and the performance of the individual, and (3) individual performance goals reflect objectives that create benefits for customers and shareholders. If National Grid were to compensate its employees only with the level of base pay provided for under the current compensation program, it would not be competitive with others in the market and over time customers would be harmed because National Grid would be unable to attract and retain the type of qualified employees needed to provide safe, reliable and efficient service.

Unlike the compensation programs that have gotten so much national attention, National Grid's compensation program is carefully designed to use variable pay in a manner that gives employees a stake in the company's success in achieving its objectives and provides a tangible reward to employees for performing their jobs at the highest possible level. The variable pay component of the compensation structure is designed to provide a

direct and specific incentive to employees to achieve or exceed specified financial, safety, and other operating performance goals. The financial objectives relate to earnings per share, net operating profit and cash flow. Individual objectives relate to safety, reliability and customer satisfaction targets that are aligned with National Grid's service quality standards and vary depending on the part of the business in which an employee works. Individual objectives also often include the successful completion of specific projects or improvement initiatives. Attached as Schedules NG-WFD-1, NG-WFD-2, NG-WFD-3, NG-WFD-4, and NG-WFD-5 are the variable pay plan guides that are provided to non-union employees. These guides explain the performance elements of the plan and the potential value to participants for achieving them. The Company's revenue requirement in this case does not include the variable pay component for National Grid's Band A executives (National Grid's most senior executives), so I am including only the employee guides for our Band B through F employees.

Using this approach, an employee's pay is aligned with both the financial performance and health of the company and the achievement of established performance standards that directly benefit customers. For example, field operations employees have goals related to safety and reliability, while customer service employees have goals related to customer satisfaction. Structuring compensation in this manner is fundamentally more cost-effective than the traditional approach of using bonuses on top of base compensation that is already at a competitive level on its own because it directly links performance and compensation.

Q. Does compensation for union employees also include a variable pay component?

A. Yes. The same theory that applies to non-union employees applies to union employees, which is that variable pay gives employees a stake in the Company's performance and provides direct incentives for employees to strive to meet or exceed metrics tied to safe, reliable, and efficient performance, which, in turn, results in better service and lower costs for customers. As with the non-union program, the variable compensation component is part of, not in addition to, the overall payroll expense that is reasonable and necessary to hire and retain quality employees. Because this philosophy toward compensation is an important part of National Grid's effort to deliver value to shareholders and maintain and improve customer service, including a component of variable pay as a component of compensation even for union employees has been one of National Grid's priorities in labor negotiations.

Q. Why should incentive pay be included in the cost of service in this case?

A. As I noted earlier, it is critical that incentive (or variable) compensation be taken into account because it is a central part of National Grid's compensation philosophy, and the market data National Grid has provided demonstrates that compensation levels are reasonable based on consideration of the total pay package for its workforce. Equally important, the compensation plans are designed to encourage good employee performance, with 40% to 50% of the incentive pay being linked to individual objectives that are directly tied to established service quality measures such as safety, reliability and customer satisfaction. The remaining portion of the incentive pay is tied to company

financial performance, forming the critical link between compensation and the overall financial success of the business.

IV. Non-Union Wages

Q. Please describe how National Grid's compensation program is applied to non-union employees.

A. A non-union employee's base pay generally grows over time as a result of annual merit increases, which are awarded based on individual employee performance and a comparison to the 50th percentile of market. An employee's base pay (and the potential for variable pay) may also increase to account for promotions, increased job responsibilities, or increased skills and competencies. Annual base pay changes, if any, go into effect on July 1 of each year.

Variable pay is determined following the close of each fiscal year, but is based on award levels that are set at the beginning of the year and are tied to various corporate and personal objectives that are also set at the beginning of the year. Results are calculated in April and May, with variable pay payments made in early June. Both the merit increase in base pay and variable pay are linked to performance results through a performance appraisal and measurement process, with the results affecting the actual level of payout of variable pay for the year just concluded and the level of base pay for the ensuing year.

Q. What amounts are included in the revenue requirement for non-union wages?

A. The Company's Rate Year payroll included in operating expense for non-union employees is $22,657,396, of which $17,200,340 has been allocated from National Grid USA Service Company and $855,032 has been allocated from former KeySpan service companies. This reflects an increase of $960,779 from the Test Year expense of $21,696,617 to reflect annual overall wage increases of 1.5% for the twelve months beginning July 1, 2009. In addition, the Company has included a 3% increase for the six months beginning July 1, 2010, which I will discuss in more detail below.

Q. How does National Grid determine the pay levels for the various levels of non-union employees?

A. National Grid seeks to set pay at approximately the median level for comparable companies in the northeast United States. To determine the median pay level for non-union employees, National Grid benchmarks certain positions within each salary band/level and compares overall pay for these benchmark jobs to the 50th percentile of overall pay for comparable jobs in similar size companies in the northeast industrial sector, based on market surveys. For this purpose, National Grid participates in an annual study done by Towers Perrin, a national consulting firm. A copy of the study for 2008 is attached as Schedule NG-WFD-6. In addition, National Grid reviews other publicly available data, such as the Salary.com survey/database called "Comp Analyst," which is a composite of several surveys.

Q. Has the Company performed a pay comparison specific to Rhode Island for its non-union employees?

A. Yes. Salary.com, one of the sources the Company uses for competitive pay information, analyzed the 50th percentile pay rates for the Company's benchmark positions. Schedule NG-WFD-7 shows the result of that analysis. Some positions are paid less in Rhode Island than in Eastern Massachusetts, and some are paid more. On balance, the differences are not significant enough to adopt a separate base pay structure for Rhode Island employees. Given the large size and wide geographic dispersion of National Grid's workforce, internal equity and consistency militate in favor of valuing positions and paying individuals using broad geographic measurements, unless the regional disparity is shown to be material. For example, National Grid does maintain a higher base pay structure for positions located in New York City and Long Island, based on market data showing an approximate 6.4% variation.

Q. Why should the non-union base wage increases in this filing be included in the Company's cost of service?

A. In this proceeding, rates are being set based on a cost of service for the twelve months ended December 31, 2010. In order to properly reflect the calendar year 2010 cost of service, wage increases implemented during 2009 and 2010 must be incorporated to arrive at the proper level of wage expense for 2010. Also, as shown in Schedule NG-WFD-6, the Towers Perrin study, a comparison of National Grid's non-union pay rates to the relevant market demonstrates that they are competitive and, therefore, reasonable. (See page 3 of the Towers Perrin study for the referenced comparison.)

Q. What level of non-union base wage increases is included in the Company's 2010 cost of service?

A. The cost of service for 2010 reflects the 2009 non-union base wage increases of 1.5 %, which has already been announced and will become effective July 1, 2009, as well as a 3% increase, which will become effective July 1, 2010.

Q. Why has the Company included a non-union salary adjustment that will be effective as of July 1, 2010?

A. The Company's practice is to adjust non-union wages annually. Although the current economic conditions have led National Grid to implement a very conservative non-union merit increase (1.5%) beginning July 1, 2009, the Company plans to implement a 3% increase effective July 1, 2010, which is consistent with historical levels. Therefore, the cost of service for 2010 has been adjusted accordingly.

V. <u>Union Wages</u>

Q. Does National Grid follow a similar compensation philosophy with regard to its union employees?

A. Yes. As I noted earlier, wages for union employees at National Grid generally include a variable pay component as well. Under their collective bargaining agreements, the following unions participate in a variable pay plan that pays out if certain financial, safety, and other operating performance goals are achieved. The International Brotherhood of Electrical Workers ("IBEW") Locals 486 and 1345 and the Utility Workers Union of America ("UWUA") Locals 310 and 369 participate in a variable pay

plan with a target payment of 3.5% of all pay. IBEW Local 3, the Transport Workers Union ("TWU") Local 101, UWUA Locals 318 and 350, and the United Steelworkers Union Locals 12102-03, 12012-04, 13507 and 12003 participate in variable pay plans with target payments of 1.5% to 2.0 % of base pay.

Q. What is the payroll expense that is included in the Company's revenue requirement in this case for union employees?

A. The total union payroll expense for the Rate Year is $23,714,167, of which $4,274,121 has been allocated from National Grid USA Service Company and $38,901 has been allocated from former KeySpan service companies. This reflects increased wages through June 30, 2010 that have already been agreed to through the unions' collective bargaining contracts. Specifically, the Company (or National Grid USA Service Company, as the case may be) and IBEW Locals 486 and 1345 negotiated a four year labor agreement in May 2007 pursuant to which these union workers will receive base wage increases of 3% on May 11, 2009 and May 11, 2010. The Company (or the service company, as the case may be) and UWUA Locals 310 and 369 have agreed upon the same level of increase as part of a four year labor agreement. IBEW Local 1049 has an existing labor agreement which provides a 3.25% base rate increase on February 13, 2009 and a 3.5% increase on February 13, 2010. TWU Local 101 has an existing labor agreement which provides for a 3.5% base rate increase on October 15, 2009. United Steelworkers Union Local 13507 has an existing labor agreement that provides for a 3.0% base rate increase on February 19, 2009. United Steelworkers Union Local 12003 has an existing labor agreement that provides for a 2.5% base rate increase on March 9,

2009 and March 8, 2010. IBEW Local 3, United Steelworkers Union Locals 12012-03, 12012-04, and UWUA Locals 318 and 350 all have contracts which expire in 2009 and may result in base rate increases as well.

Q. What steps does National Grid take to ensure that the union wages it pays are reasonable?

A. For union employees, National Grid obtains information regarding hourly pay rates from surrounding utilities to measure the competitiveness of union pay levels. Schedule NG-WFD-8 shows the most recent comparison of pay levels for key union jobs among a number of New England utilities. As the schedule shows, National Grid's wage rates are within the range of these other utilities. In reviewing this data, it's important to bear in mind that there are a variety of other factors that are difficult or impossible to measure that have a significant impact on total pay under each company's union contracts. These include matters such as premiums, overtime rules, progression times and work rules.

VI. <u>Benefit Plans</u>

Q. Please describe the benefit package that is offered to employees of National Grid, including those of the Company.

A. National Grid provides a variety of employee health and welfare and pension and post-retirement benefit ("OPEB") plans to its union, non-union and executive employees. Benefit plans are offered for medical coverage, dental coverage, life insurance coverage and long-term disability coverage. There are also paid vacations and holidays. In

addition, employees are offered a defined benefit pension plan, a defined contribution or 401(k) plan and post-retirement benefits.

Q. How does National Grid ensure that its benefit programs are reasonable and competitive?

A. Periodically, National Grid commissions a study by outside consultants for this purpose. The consultants (Towers Perrin) collect benefit plan provisions from hundreds of employers in all sectors of the economy and use their proprietary software to measure the value of these programs. National Grid selects twelve to fifteen comparable companies – mostly utilities – to determine the relative value of its benefit programs. Schedules NG-WFD-9 and NG-WFD-10 are the most recent studies for both union and non-union benefits, respectively. The analysis is conducted for each benefit separately as well as on an entire-program basis. It is not unusual for results to vary benefit by benefit due to unique factors associated with each company's history and priorities. The entire-program analysis combines all values and allows for a comparison between companies' benefit programs. I should note that a condition of participation is that the link between the participating company and the value of the benefits it provides not be disclosed. The studies I am including with this testimony, therefore, mask which companies correlate with which data, other than for National Grid. However, the names of the participants are provided in the reports, so the Commission will be aware of the companies to which National Grid's data was compared. As you can see from both sets of charts, National Grid benefit plans for both non-union and union employees are very close to the median.

Q. What efforts has National Grid undertaken to control costs associated with its benefit programs?

A. The Company has taken many steps to control benefit costs. Earlier, I discussed some of the changes resulting from the review undertaken as part of the acquisition of KeySpan. In addition, National Grid participates in both industry groups and benefit councils to learn best practices and stay abreast of market developments. National Grid also seeks new ideas and suggestions from its vendors. The data provided from the Towers Perrin studies demonstrate the success of National Grid's efforts. In addition, all of National Grid's health and welfare benefit plans are self-insured, which affords it a greater ability to control costs than it would have under third party insurance programs. Because these plans are self-insured, the costs for the programs are directly linked to the utilization of benefits. National Grid's medical plans also provide extensive health and wellness programs designed to reduce health risks and reduce the occurrence of costly diseases. This, combined with coverage for preventive check-ups and screenings, provides a benefit structure that, over time, should help to mitigate costs and improve employee wellness.

Another area of cost control is in National Grid's disability benefit program, which protects employees from the loss of income as a result of sickness or disability. To ensure that these benefits are paid only to legitimately sick and/or disabled employees, National Grid teams up its internal nurse practitioners with a third party – Matrix – to monitor employee care, verify with treating physicians, find alternative light duty work where it is feasible and ensure as rapid a return to regular duty as reasonably possible.

Q. Were similar efforts made to control the cost of union benefit plans?

A. The benefit plan changes described above occurred after the negotiations for a new agreement in May 2007. Therefore, these changes have not yet been addressed with them. However, National Grid self-insures the union benefit plans as well as the non-union plans, and has implemented the sick/disability utilization controls with its unions as well.

Q. Please describe any adjustments to Test Year expense for employee benefit plans that the Company is including in its proposed revenue requirement.

A. National Grid is projecting increases of 8% in the costs associated with medical benefits for the Rate Year ending December 31, 2010, which is consistent with its actual experience and with the projections of experts and information from Towers Perrin. For dental benefits, National Grid is projecting a 3% increase in cost which is also consistent with its experience and the advice of experts at Towers Perrin. For all other benefits, the Company has applied the payroll escalation rate to derive the Rate Year costs.

Q. What has the Company done to control its pension expense?

A. National Grid has implemented a common cash balance pension plan design for all non-union employees, effective with new hires on and after July 15, 2002. This cash balance pension plan is significantly less costly than the prior final average pay type plan because of its smaller annual benefit accruals and flatter cost curve over the working life of an employee. Both of these attributes result in lower ultimate pension costs for the Company. National Grid has combined this approach with an aggressive participation

and investment management campaign in its defined contribution (401k) plan, so that employees can both save more and invest more wisely and still end up with sufficient retirement income security.

Q. Has National Grid implemented a cash balance plan for union employees?

A. National Grid has not implemented a cash balance plan for union employees of the Company or National Grid USA Service Company, Inc. However, IBEW Local 3 and TWU Local 101 have adopted a cash balance pension for new hires on and after October 16, 2001.

Q. Please describe National Grid's efforts to contain the costs of OPEB expenses.

A. National Grid has taken a number of steps to control OPEB expense. At one time, employees could retire and receive post retirement medical benefits without contribution. They also received a reimbursement for the Medicare Part B premium. Over time, National Grid has made a number of changes so that now non-union employees pay for pre-age 65 post retirement medical insurance at the same rates as active employees. They pay a service-based contribution for post-age 65 coverage that has a maximum company contribution of 50%, and reimbursement of the Medicare Part B premium has been eliminated. Union employees likewise pay for pre-age 65 medical at the same rate as active employees, while post-age 65 employees receive an employer contribution toward coverage equal to $4.50 per month per year of service ($9.00 if married). In addition, reimbursement of the Medicare Part B premium has been eliminated. In the life insurance program, at one time, employees retired and their life insurance reduced

gradually to about 25% of their final base pay. Non-union employees' life insurance now drops immediately at retirement to $20,000 and union employees to $11,500.

VII. Conclusion

Q. Does this conclude your direct testimony?

A. Yes.

Schedules of
William F. Dowd

Schedules

Schedule NG-WFD-1	US Employee Guide (Band B)
Schedule NG-WFD-2	US Employee Guide (Band C)
Schedule NG-WFD-3	US Employee Guide (Band D)
Schedule NG-WFD-4	US Employee Guide (Band E)
Schedule NG-WFD-5	US Employee Guide (Band F)
Schedule NG-WFD-6	Competitive Assessment of Non-Union Compensation (Towers Perrin, 11/13/08)
Schedule NG-WFD-7	Comparison of Rhode Island Wages to New England Wages
Schedule NG-WFD-8	National Grid USA Union Wage Comparison
Schedule NG-WFD-9	BENVAL Analysis for Union Benefits (Tower Perrin, 10/9/08)
Schedule NG-WFD-10	BENVAL Analysis for Non-Union Benefits (Towers Perrin, 9/7/06)

Schedule
NG-WFD-1

Schedule NG-WFD-1

US Employee Guide (Band B)

EMPLOYEE GUIDE TO

THE

ANNUAL BONUS PLAN 2007/08

US – Band B

1 Introduction

This guide summarises the main provisions of the National Grid Annual Bonus Plan 2007/08 (the "**Plan**") and highlights the general operation of the plan.

The Plan is intended to motivate employees to achieve the highest possible financial and individual performance, whilst ensuring that at all times, all safety, health and environment requirements are adhered to, all standards of service are achieved and shareholder expectations reached. In short, all our stakeholders should benefit from the Plan.

Stretching financial targets and individual objectives will be set, as soon as practicable, after the start of the Plan year (April each year).

2 Plan Summary

60% of the maximum bonus opportunity will be based on financial targets and 40% will be based on individual objectives.

2.1 Financial Targets

Within the 60% for financial targets, 30% will be based on Group Earnings per Share (Group EPS) and the remaining amount for the financial element of the bonus will be based on appropriate business unit targets e.g. operating profit or any other appropriate targets set by the relevant Executive Director.

2.2 Individual objectives

Four or five key individual objectives will be set. They should be stretching, measurable and achievable

When assessing achievement of the individual objectives, equal importance will be attributed to performance against the Leadership Qualities (see attached Appendix 1).

The performance assessment will result in a rating using the National Grid Rating Scale of 1 to 5 (See Appendix 2).

3 Performance Reviews

Your manager will discuss performance against targets and objectives with you on a regular basis throughout the year. An interim review will be undertaken part way through the year to formally assess progress and a year end review will be undertaken to assess final performance. It is both your responsibility and your Manager's to ensure these discussions take place, they are effective by clearly articulating progress and expectations; and they provide an opportunity for constructive two way dialogue.

4 Worked Example

The attached example shows how the assessment process works. The example is based on an employee who has a maximum bonus opportunity of 70% of salary. 60% of the bonus is based on financial targets and 40% on individual objectives.

On this basis, 42% of salary is based on financial targets and 28% of salary is based on individual objectives.

See Appendices 3 and 4 and read in conjunction with the following notes.

4.1 Notes to Example

The Company achieves stretch performance (**21%)** for Group EPS and target (**6.3%**) for Business Unit Operating Profit. Business Unit Cashflow is based on achieving between Threshold and Target (**1.93%**). See Appendix 3.

21%	- Group EPS **+**
6.3%	- Business Unit Operational Profit **+**
1.93%	- Business Unit Cashflow
29.23%	- **Total**

In this example, the manager determines the employee frequently exceeds expectations with regard to performance objectives and strongly demonstrates the Leadership Qualities. The manager therefore determines the employee will be in a 2/1 position overall (i.e. Performance Objectives "v" Leadership Qualities) with an overall rating of 2 (Frequently Exceeds Expectations) and that 80% of the maximum available for individual performance will be paid. See Appendix 4.

As such **80% x 28% = 22.4%**. This is then added to the total for financial targets **(29.23%)**. Consequently, the bonus achieved is **52%** (rounded) out of a bonus maximum of **70%**. Therefore, the employee will receive **52% of their salary as a bonus.**

Note: There is discretion to reduce payments to take account of significant safety or service standard incidents.

5 Payment of the Bonus

Your bonus is payable in June and is subject to tax withholdings.

6 Ceasing to be employed

If you cease to be an employee during the Plan year, a discretional cash payment may be paid to you, but this will depend on the circumstances of your leaving.

7 Limitations of the Plan

The Company may amend, suspend or terminate all or any part of the Plan at any time.

Participation in, and the operation of, the Plan will not form part of or affect your contract of employment or your employment relationship, nor will they give you the right to continued employment. Participation in one year of the Plan does not indicate that you will participate, or be considered for participation, in any years. You are not entitled to any compensation or other benefit in respect of the Plan.

APPENDIX 1

Leadership Qualities

- **Lives the National Grid values**
- **Creates the future**
- **Consistently delivers great performance**
- **Builds relationships**
- **Develops self and others**

Full details of the Leadership Qualities are included in the Performance For Growth Guidelines.

APPENDIX 2

National Grid Rating Scale Definitions

Creates Exceptional Value (1) — to achieve an overall rating in this category means the employee **creates exceptional value in most, if not all, business objectives and leadership qualities**, frequently exceeding expectations, and achieving maximum measures of success. Employees in this category:

- ❑ Drive optimal results while demonstrating extraordinary leadership.
- ❑ Demonstrate *role model behaviour* in capabilities appropriate to role.

Frequently Exceeds Expectations (2) — to achieve an overall rating in this category means the employee **frequently exceeds expectations in most, if not all, business objectives and leadership qualities,** achieving above target measures of success. Employees in this category:

- ❑ Excel at contributing to achievement of targeted goals within their job role and frequently achieve above target levels.
- ❑ Deliver strong results while demonstrating strong leadership.
- ❑ Demonstrate great strengths in qualities appropriate to role.

Consistently Meets Expectations (3) — to achieve an overall rating in this category means the employee **consistently meets expectations and has exceeded in a few business objectives and leadership qualities**. Employees in this category:

- ❑ Consistently contribute to achievement of the success of the business unit by meeting all goals and exceeding some.
- ❑ Are reliable and dependable in the performance of day-to-day and stretch objectives.
- ❑ Consistently demonstrate leadership qualities.

Meets Most Expectations (4) — to achieve an overall rating in this category means the employee **meets most expectations in business objectives and leadership qualities**, achieving some target measures of success. Employees in this category:

- ❑ Contribute to achievement of goals and success of the immediate business area.
- ❑ Have one or more business objectives that have not been fully realised.
- ❑ Demonstrate most of the leadership qualities.

More Is Expected (5) — to receive an overall rating in this category means that **more is expected of the employee in order to achieve target measures of success and/or to improve a significant shortcoming in one or more business objectives and/or leadership qualities.** Employees in this category:

- ❑ Meet minimum requirements of the job; and have required job skills.
- ❑ Deliver results asked for, but do not demonstrate strong initiative to contribute to the success of the team or the work without direction.
- ❑ Deliver limited added value to the business area.
- ❑ Employees in this category need to work closely with their immediate manager and HR to take actions that will improve and sustain performance at target levels.

Annual Bonus Targets for 2007/08

Appendix 3

Overall bonus plan structure

	Maximum bonus potential (% of salary)	Company		Business Unit		Individual	
		of bonus	*of salary*	Of bonus	*of salary*	of bonus	*of salary*
Total	**70%**	30%	***21%***	30%	***21%***	40%	***28%***

Company Financial measures

	Threshold (10%) of Bonus		Target (45%) of Bonus		Stretch (100%) of Bonus		Actual	
	Required result	% salary	Required result	% salary	Required result	% salary	Result achieved	% of salary
EPS	G1	2.1	G2	9.45	G3	21	**G3**	**21**

Business Unit Financial measures – (Weighting - 2/3rds Operating Profit or Gross Costs etc and 1/3rd based on targets applicable to the Global line of business/business unit)

	Threshold (10%) of Bonus		Target (45%) of Bonus		Stretch (100%) of Bonus		Actual	
	Required result	% salary	Required result	% salary	Required result	% salary	Result achieved	% of salary
Operating Profit	X1	1.4	X2	6.3	X3	14	**X2**	**6.3**
Cash Flow	Y1	0.7	Y2	3.15	Y3	7	**Between Y1 & Y2**	**1.93**

Grid Rating – Individual Objectives & Leadership Qualities Assessment Only

Appendix 4

Leadership Qualities	5	4	3	2	1
1	35% - 49%	50% - 74%	50% - 74%	75% - 89%	90% - 100%
2	35% - 49%	35% - 49%	50% - 74%	50% - 74%	75% - 89%
3	0%-34%	35% - 49%	35% - 49%	50% - 74%	50% - 74%

Performance Objectives

Key

Performance Objectives:

1 = Creates Exceptional Value

2 = Frequently Exceeds Expectations

3 = Consistently Meets Expectations

4 = Meets Most Expectations

5 = More is Expected

Leadership Qualities:

1 = Strongly Demonstrated

2 = Demonstrated

3 = Not Demonstrated Consistently

Overall Rating

1 = Creates Exceptional Value

2 = Frequently Exceeds Expectations

3 = Consistently Meets Expectations

4 = Meets Most Expectations

5 = More is Expected

Note:

%ages shown relate to the %age achieved as a %age of maximum for Individual Objectives part of the bonus only.

Schedule
NG-WFD-2

Schedule NG-WFD-2

US Employee Guide (Band C)

EMPLOYEE GUIDE TO

THE

ANNUAL BONUS PLAN

US – Band C

2008/2009

Dear colleague

During 2007, we made significant changes to our Company including the merger with KeySpan (which has doubled the size of our US operations) and the reorganisation of our activities around Global Lines of Business.

In order to realise our potential, we need to improve performance across the business on a financial basis, but also in everything we do. We have started this work by identifying ways to fully integrate our operations and deploy best practice and common processes across the organisation.

This performance philosophy flows through to our annual bonus plan, which after having operated Performance For Growth in 2007/08 for Bands A and B, will be cascaded down in 2008/09 to Band D (UK) and Band F (US).

This guide provides information about how the annual bonus plan will operate and your Manager will discuss this further with you over the next few weeks.

Steve Holliday
Chief Executive

1 Introduction

This guide summarises the main provisions of the National Grid Annual Bonus Plan 2008/09 (the "**Plan**") and highlights the general operation of the plan. The Plan has been approved by the Executive Directors and they have absolute discretion over the operation and design of the Plan (see section 7 for further detail).

The Plan is intended to motivate employees to achieve the highest possible financial and individual performance, whilst ensuring that at all times, all safety, health and environment requirements are adhered to, all standards of service are achieved and shareholder expectations reached. In short, all our stakeholders should benefit from the Plan.

Stretching financial targets and individual objectives will be set, as soon as practicable, after the start of the Plan year (April each year).

2 Plan Summary

50% of the maximum bonus opportunity is based on financial targets and 50% is based on individual objectives.

2.1 Financial Targets

Within the 50% for financial targets, 20% is based on Group Earnings per Share (Group EPS) and the remaining amount for the financial element of the bonus will be based on appropriate Line of Business/Shared Services/IS ("LOB") targets e.g. operating profit or any other appropriate targets set by the relevant Executive Director.

2.2 Individual objectives

Four or five key individual objectives are set. They should be stretching, measurable and achievable.

When assessing achievement of the individual objectives, equal importance is attributed to performance against the Leadership Qualities (see attached Appendix 1).

The performance assessment will result in a rating using the National Grid Rating Scale of 1 to 5 (See Appendix 2).

3 Performance Reviews

Your manager will discuss performance against targets and objectives with you on a regular basis throughout the year. An interim review will be undertaken part way through the year to formally assess progress and a year end review will be undertaken to assess final performance. It is both your responsibility and your Manager's to ensure these discussions take place. They can be effective only by clearly articulating progress and expectations; and by providing an opportunity for constructive two way dialogue. Assessment of performance against individual objectives is based on the what and how ratings as shown below.

Performance Grid Rating Matrix

Leadership Qualities (How)						
Strongly Demonstrated	1	5/1	4/1	3/1	2/1	1/1
Demonstrated	2	5/2	4/2	3/2	2/2	1/2
Not Demonstrated Consistently	3	5/3	4/3	3/3	2/3	1/3
		5	4	3	2	1
		More is Expected	Meets Most Expectations	Consistently Meets Expectations	Frequently Exceeds Expectations	Creates Exceptional Value

Performance Objectives (What)

4 Worked Example

The attached example shows how the assessment process works. The example is based on an employee who has a maximum bonus opportunity of 40% of salary. 50% of the bonus is based on financial targets and 50% on individual objectives.

On this basis, 20% of salary is based on financial targets and 20% of salary is based on individual objectives.

See Appendices 3 and 4 and read in conjunction with the following notes.

4.1 Notes to Example

The Company achieves stretch performance (**8%)** for Group EPS and target (**5.4%**) for LOB Operating Profit. See Appendix 3.

8.00%	- Group EPS **+**
5.40%	- LOB Operational Profit
13.40%	- **Total**

In this example, the manager determines the employee frequently exceeds expectations with regard to performance objectives and demonstrated the Leadership Qualities. The manager therefore determines the employee will be in a 2/2 position overall (i.e. Performance "v" Leadership Qualities) and that 80% of the maximum available for individual performance will be paid. See Appendix 4.

As such **80% x 20% = 16%**. This is then added to the total for financial targets **(13.4%)**. Consequently, the bonus achieved is **29.4%** out of a bonus maximum of **40%**. Therefore, the employee will receive **29.4% of their salary as a bonus.**

Note: There is discretion to reduce payments to take account of significant safety, service standard incidents and environmental issues.

5 Payment of the Bonus

Your bonus is payable in June and is subject to tax withholdings.

6 Ceasing to be employed

If you cease to be an employee during the Plan year, a discretional cash payment may be paid to you, but this will depend on the circumstances of your leaving.

7 Limitations of the Plan

The Company may amend, suspend or terminate all or any part of the Plan at any time.

Participation in, and the operation of, the Plan will not form part of or affect your contract of employment or your employment relationship, nor will they give you the right to continued employment. Participation in one year of the Plan does not indicate that you will participate, or be considered for participation, in any future years. You are not entitled to any compensation or other benefit in respect of the Plan.

APPENDIX 1

Leadership Qualities (the "how")

- **Lives the National Grid values**
- **Creates the future**
- **Consistently delivers great performance**
- **Builds relationships**
- **Develops self and others**

Full details of the Leadership Qualities are included in the Performance For Growth Guidelines.

APPENDIX 2

Performance Rating Definitions (the "what")

Creates Exceptional Value (1) — to achieve a rating in this category means the employee **creates exceptional value in most, if not all, business objectives,** frequently exceeding expectations, and achieving maximum measures of success. Employees in this category:

- ❑ Frequently achieve stretch levels of performance
- ❑ Drive optimal results

Frequently Exceeds Expectations (2) — to achieve a rating in this category means the employee **frequently exceeds expectations in most, if not all, business objectives,** achieving above target measures of success. Employees in this category:

- ❑ Excel at contributing to achievement of targeted goals within their job role and frequently achieve above target levels.
- ❑ Deliver strong results.

Consistently Meets Expectations (3) — to achieve a rating in this category means the employee **consistently meets expectations and has exceeded in a few business objectives**. Employees in this category:

- ❑ Consistently contribute to achievement of the success of the business unit by meeting all goals and exceeding some.
- ❑ Are reliable and dependable in the performance of day-to-day and stretch objectives.

Meets Most Expectations (4) — to achieve a rating in this category means the employee **meets most expectations in business objectives**, achieving some target measures of success. Employees in this category:

- ❑ Contribute to achievement of goals and success of the immediate business area.
- ❑ Have one or more business objectives that have not been fully realised.

More Is Expected (5) — to receive a rating in this category means that **more is expected of the employee in order to achieve target measures of success and/or to improve a significant shortcoming in one or more business objectives**. Employees in this category:

- ❑ Meet minimum requirements of the job; and have required job skills.
- ❑ Deliver results asked for, but do not demonstrate strong initiative to contribute to the success of the team or the work without direction.
- ❑ Deliver limited added value to the business area.

Annual Bonus Targets for 2008/09

Appendix 3

Overall bonus plan structure

	Maximum bonus potential (% of salary)	Company		LOB		Individual	
		of bonus	*of salary*	Of bonus	*of salary*	of bonus	*of salary*
Total	**40%**	20%	***8%***	30%	***12%***	50%	***20%***

Company Financial measures

	Threshold (10%) of Bonus		Target (45%) of Bonus		Stretch (100%) of Bonus		Actual	
	Required result	% salary	Required result	% salary	Required result	% salary	Result achieved	% of salary
EPS	G1	0.8	G2	3.60	G3	8	**G3**	**8**

LOB Financial measures

	Threshold (10%) of Bonus		Target (45%) of Bonus		Stretch (100%) of Bonus		Actual	
	Required result	% salary	Required result	% salary	Required result	% salary	Result achieved	% of salary
Operating Profit	X1	1.2	X2	5.4	X3	12	**X2**	**5.4**

Appendix 4

Bonus Rating Matrix

Leadership Qualities (How)		5 More is Expected	4 Meets Most Expectations	3 Consistently Meets Expectations	2 Frequently Exceeds Expectations	1 Creates Exceptional Value
Strongly Demonstrated	1	35% - 49%	50% - 74%	75% - 84%	85% - 94%	95% - 100%
Demonstrated	2	21% - 34%	35% - 49%	50% - 74%	75% - 84%	85% - 94%
Not Demonstrated Consistently	3	0% - 20%	21% - 34%	35% - 49%	50% - 74%	75% - 84%

Performance Objectives (What)

Proposed Distribution Guidelines	
0% - 20%	5%
21% - 34%	10%
35% - 49%	20%
50% - 74%	30%
75% - 84%	20%
85% - 94%	10%
95% - 100%	5%

Note:
%ages shown relate to the %age achieved as a %age of maximum for the Individual Objectives part of the bonus only.

Schedule
NG-WFD-3

Schedule NG-WFD-3

US Employee Guide (Band D)

EMPLOYEE GUIDE TO

THE

ANNUAL BONUS PLAN

US – Band D

2008/2009

Dear colleague

During 2007, we made significant changes to our Company including the merger with KeySpan (which has doubled the size of our US operations) and the reorganisation of our activities around Global Lines of Business.

In order to realise our potential, we need to improve performance across the business on a financial basis, but also in everything we do. We have started this work by identifying ways to fully integrate our operations and deploy best practice and common processes across the organisation.

This performance philosophy flows through to our annual bonus plan, which after having operated Performance For Growth in 2007/08 for Bands A and B, will be cascaded down in 2008/09 to Band D (UK) and Band F (US).

This guide provides information about how the annual bonus plan will operate and your Manager will discuss this further with you over the next few weeks.

Steve Holliday
Chief Executive

1 Introduction

This guide summarises the main provisions of the National Grid Annual Bonus Plan 2008/09 (the "**Plan**") and highlights the general operation of the plan. The Plan has been approved by the Executive Directors and they have absolute discretion over the operation and design of the Plan (see section 7 for further detail).

The Plan is intended to motivate employees to achieve the highest possible financial and individual performance, whilst ensuring that at all times, all safety, health and environment requirements are adhered to, all standards of service are achieved and shareholder expectations reached. In short, all our stakeholders should benefit from the Plan.

Stretching financial targets and individual objectives will be set, as soon as practicable, after the start of the Plan year (April each year).

2 Plan Summary

50% of the maximum bonus opportunity is based on financial targets and 50% is based on individual objectives.

2.1 Financial Targets

Within the 50% for financial targets, 20% will be based on Group Earnings per Share (Group EPS) and the remaining amount for the financial element of the bonus will be based on appropriate Line of Business/Shared Services/IS ("LOB") targets e.g. operating profit or any other appropriate targets set by the relevant Executive Director.

2.2 Individual objectives

Four or five key individual objectives are set. They should be stretching, measurable and achievable.

When assessing achievement of the individual objectives, equal importance is attributed to performance against the Leadership Qualities (see attached Appendix 1).

The performance assessment will result in a rating using the National Grid Rating Scale of 1 to 5 (See Appendix 2).

3 Performance Reviews

Your manager will discuss performance against targets and objectives with you on a regular basis throughout the year. An interim review will be undertaken part way through the year to formally assess progress and a year end review will be undertaken to assess final performance. It is both your responsibility and your Manager's to ensure these discussions take place. They can be effective only by clearly articulating progress and expectations; and by providing an opportunity for constructive two way dialogue. Assessment of performance against individual objectives is based on the what and how ratings as shown below.

Performance Grid Rating Matrix

Leadership Qualities (How)						
Strongly Demonstrated	1	5/1	4/1	3/1	2/1	1/1
Demonstrated	2	5/2	4/2	3/2	2/2	1/2
Not Demonstrated Consistently	3	5/3	4/3	3/3	2/3	1/3
		5	4	3	2	1
		More is Expected	Meets Most Expectations	Consistently Meets Expectations	Frequently Exceeds Expectations	Creates Exceptional Value

Performance Objectives (What)

4 Worked Example

The attached example shows how the assessment process works. The example is based on an employee who has a maximum bonus opportunity of 30% of salary. 50% of the bonus is based on financial targets and 50% on individual objectives.

On this basis, 15% of salary is based on financial targets and 15% of salary is based on individual objectives.

See Appendices 3 and 4 and read in conjunction with the following notes.

4.1 Notes to Example

The Company achieves stretch performance (**6%)** for Group EPS and target (**4.05%**) for Business Unit Operating Profit. See Appendix 3.

6.00%	- Group EPS **+**
4.05%	- LOB Operational Profit
10.05%	- **Total**

In this example, the manager determines the employee frequently exceeds expectations with regard to performance objectives and demonstrated the Leadership Qualities. The manager therefore determines the employee will be in a 2/2 position overall (i.e. Performance "v" Leadership Qualities) and that 80% of the maximum available for individual performance will be paid. See Appendix 4.

As such **80% x 15% = 12%**. This is then added to the total for financial targets **(10.05%)**. Consequently, the bonus achieved is **22.05%** out of a bonus maximum of **30%**. Therefore, the employee will receive **22.05% of their salary as a bonus.**

Note: There is discretion to reduce payments to take account of significant safety, service standard incidents and environmental issues.

5 Payment of the Bonus

Your bonus is payable in June and is subject to tax withholdings.

6 Ceasing to be employed

If you cease to be an employee during the Plan year, a discretional cash payment may be paid to you, but this will depend on the circumstances of your leaving.

7 Limitations of the Plan

The Company may amend, suspend or terminate all or any part of the Plan at any time.

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APPENDIX 1

Leadership Qualities (the "how")

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- ❑ Frequently achieve stretch levels of performance
- ❑ Drive optimal results

Frequently Exceeds Expectations (2) — to achieve a rating in this category means the employee **frequently exceeds expectations in most, if not all, business objectives,** achieving above target measures of success. Employees in this category:

- ❑ Excel at contributing to achievement of targeted goals within their job role and frequently achieve above target levels.
- ❑ Deliver strong results.

Consistently Meets Expectations (3) — to achieve a rating in this category means the employee **consistently meets expectations and has exceeded in a few business objectives**. Employees in this category:

- ❑ Consistently contribute to achievement of the success of the business unit by meeting all goals and exceeding some.
- ❑ Are reliable and dependable in the performance of day-to-day and stretch objectives.

Meets Most Expectations (4) — to achieve a rating in this category means the employee **meets most expectations in business objectives**, achieving some target measures of success. Employees in this category:

- ❑ Contribute to achievement of goals and success of the immediate business area.
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- ❑ Deliver limited added value to the business area.

Annual Bonus Targets for 2008/09

Appendix 3

Overall bonus plan structure

	Maximum bonus potential (% of salary)	Company		LOB		Individual	
		of bonus	*of salary*	of bonus	*of salary*	of bonus	*of salary*
Total	**30%**	20%	***6%***	30%	***9%***	50%	***15%***

Company Financial measures

	Threshold (10%) of Bonus		Target (45%) of Bonus		Stretch (100%) of Bonus		Actual	
	Required result	% salary	Required result	% salary	Required result	% salary	Result achieved	% of salary
EPS	G1	0.6	G2	2.7	G3	6	**G3**	**6**

LOB Financial measures

	Threshold (10%) of Bonus		Target (45%) of Bonus		Stretch (100%) of Bonus		Actual	
	Required result	% salary	Required result	% salary	Required result	% salary	Result achieved	% of salary
Operating Profit	X1	0.9	X2	4.05	X3	9	**X2**	**4.05**

Appendix 4

Bonus Rating Matrix

Leadership Qualities (How)						
Strongly Demonstrated	1	35% - 49%	50% - 74%	75% - 84%	85% - 94%	95% - 100%
Demonstrated	2	21% - 34%	35% - 49%	50% - 74%	75% - 84%	85% - 94%
Not Demonstrated Consistently	3	0% - 20%	21% - 34%	35% - 49%	50% - 74%	75% - 84%
		5 More is Expected	4 Meets Most Expectations	3 Consistently Meets Expectations	2 Frequently Exceeds Expectations	1 Creates Exceptional Value

Performance Objectives (What)

Proposed Distribution Guidelines	
0% - 20%	5%
21% - 34%	10%
35% - 49%	20%
50% - 74%	30%
75% - 84%	20%
85% - 94%	10%
95% - 100%	5%

Note:
%ages shown relate to the %age achieved as a %age of maximum for the Individual Objectives part of the bonus only.

Schedule
NG-WFD-4

Schedule NG-WFD-4

US Employee Guide (Band E)

EMPLOYEE GUIDE TO

THE

ANNUAL BONUS PLAN

US – Band E

2008/2009

Dear colleague

During 2007, we made significant changes to our Company including the merger with KeySpan (which has doubled the size of our US operations) and the reorganisation of our activities around Global Lines of Business.

In order to realise our potential, we need to improve performance across the business on a financial basis, but also in everything we do. We have started this work by identifying ways to fully integrate our operations and deploy best practice and common processes across the organisation.

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Stretching financial targets and individual objectives will be set, as soon as practicable, after the start of the Plan year (April each year).

2 Plan Summary

50% of the maximum bonus opportunity is based on financial targets and 50% will be based on individual objectives.

2.1 Financial Targets

Within the 50% for financial targets, 20% will be based on Group Earnings per Share (Group EPS) and the remaining amount for the financial element of the bonus will be based on appropriate business unit targets e.g. operating profit or any other appropriate targets set by the relevant Executive Director.

2.2 Individual objectives

Four or five key individual objectives are set. They should be stretching, measurable and achievable.

When assessing achievement of the individual objectives, equal importance is attributed to performance against the Leadership Qualities (see attached Appendix 1).

The performance assessment will result in a rating using the National Grid Rating Scale of 1 to 5 (See Appendix 2).

3 Performance Reviews

Your manager will discuss performance against targets and objectives with you on a regular basis throughout the year. An interim review will be undertaken part way through the year to formally assess progress and a year end review will be undertaken to assess final performance. It is both your responsibility and your Manager's to ensure these discussions take place. They can be effective only by clearly articulating progress and expectations; and by providing an opportunity for constructive two way dialogue. Assessment of performance against individual objectives is based on the what and how ratings as shown below.

Performance Grid Rating Matrix

Leadership Qualities (How)						
Strongly Demonstrated	1	5/1	4/1	3/1	2/1	1/1
Demonstrated	2	5/2	4/2	3/2	2/2	1/2
Not Demonstrated Consistently	3	5/3	4/3	3/3	2/3	1/3
		5	4	3	2	1
		More is Expected	Meets Most Expectations	Consistently Meets Expectations	Frequently Exceeds Expectations	Creates Exceptional Value

Performance Objectives (What)

4 Worked Example

The attached example shows how the assessment process works. The example is based on an employee who has a maximum bonus opportunity of 20% of salary. 50% of the bonus is based on financial targets and 50% on individual objectives.

On this basis, 10% of salary is based on financial targets and 10% of salary is based on individual objectives.

See Appendices 3 and 4 and read in conjunction with the following notes.

4.1 Notes to Example

The Company achieves stretch performance (**4%)** for Group EPS and target (**2.7%**) for Business Unit Operating Profit. See Appendix 3.

4.00%	- Group EPS **+**
2.70%	- LOB Operational Profit **+**
6.70%	- **Total**

In this example, the manager determines the employee frequently exceeds expectations with regard to performance objectives and demonstrated the Leadership Qualities. The manager therefore determines the employee will be in a 2/2 position overall (i.e. Performance "v" Leadership Qualities) and that 80% of the maximum available for individual performance will be paid. See Appendix 4.

As such **80% x 10% = 8%**. This is then added to the total for financial targets **(6.70%)**. Consequently, the bonus achieved is **14.70%** out of a bonus maximum of **20%**. Therefore, the employee will receive **14.70% of their salary as a bonus.**

Note: There is discretion to reduce payments to take account of significant safety, service standard incidents and environmental issues.

5 Payment of the Bonus

Your bonus is payable in June and is subject to tax withholdings.

6 Ceasing to be employed

If you cease to be an employee during the Plan year, a discretional cash payment may be paid to you, but this will depend on the circumstances of your leaving.

7 Limitations of the Plan

The Company may amend, suspend or terminate all or any part of the Plan at any time.

Participation in, and the operation of, the Plan will not form part of or affect your contract of employment or your employment relationship, nor will they give you the right to continued employment. Participation in one year of the Plan does not indicate that you will participate, or be considered for participation, in any future years. You are not entitled to any compensation or other benefit in respect of the Plan.

APPENDIX 1

Leadership Qualities (the "how")

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- **Develops self and others**

Full details of the Leadership Qualities are included in the Performance For Growth Guidelines.

APPENDIX 2

Performance Rating Definitions (the "what")

Creates Exceptional Value (1) — to achieve a rating in this category means the employee **creates exceptional value in most, if not all, business objectives,** frequently exceeding expectations, and achieving maximum measures of success. Employees in this category:

- ❑ Frequently achieve stretch levels of performance
- ❑ Drive optimal results

Frequently Exceeds Expectations (2) — to achieve a rating in this category means the employee **frequently exceeds expectations in most, if not all, business objectives,** achieving above target measures of success. Employees in this category:

- ❑ Excel at contributing to achievement of targeted goals within their job role and frequently achieve above target levels.
- ❑ Deliver strong results.

Consistently Meets Expectations (3) — to achieve a rating in this category means the employee **consistently meets expectations and has exceeded in a few business objectives**. Employees in this category:

- ❑ Consistently contribute to achievement of the success of the business unit by meeting all goals and exceeding some.
- ❑ Are reliable and dependable in the performance of day-to-day and stretch objectives.

Meets Most Expectations (4) — to achieve a rating in this category means the employee **meets most expectations in business objectives**, achieving some target measures of success. Employees in this category:

- ❑ Contribute to achievement of goals and success of the immediate business area.
- ❑ Have one or more business objectives that have not been fully realised.

More Is Expected (5) — to receive a rating in this category means that **more is expected of the employee in order to achieve target measures of success and/or to improve a significant shortcoming in one or more business objectives**. Employees in this category:

- ❑ Meet minimum requirements of the job; and have required job skills.
- ❑ Deliver results asked for, but do not demonstrate strong initiative to contribute to the success of the team or the work without direction.
- ❑ Deliver limited added value to the business area.

Annual Bonus Targets for 2008/09

Appendix 3

Overall bonus plan structure

	Maximum bonus potential (% of salary)	Company		LOB		Individual	
		of bonus	*of salary*	of bonus	*of salary*	of bonus	*of salary*
Total	**20%**	20%	***4%***	30%	***6%***	50%	***10%***

Company Financial measures

	Threshold (10%) of Bonus		Target (45%) of Bonus		Stretch (100%) of Bonus		Actual	
	Required result	% salary	Required result	% salary	Required result	% salary	Result achieved	% of salary
EPS	G1	0.4	G2	1.8	G3	4	**G3**	**4**

LOB Financial measures

	Threshold (10%) of Bonus		Target (45%) of Bonus		Stretch (100%) of Bonus		Actual	
	Required result	% salary	Required result	% salary	Required result	% salary	Result achieved	% of salary
Operating Profit	X1	0.6	X2	2.7	X3	6	**X2**	**2.7**

Appendix 4

Bonus Rating Matrix

Leadership Qualities (How)						
Strongly Demonstrated	1	35% - 49%	50% - 74%	75% - 84%	85% - 94%	95% - 100%
Demonstrated	2	21% - 34%	35% - 49%	50% - 74%	75% - 84%	85% - 94%
Not Demonstrated Consistently	3	0% - 20%	21% - 34%	35% - 49%	50% - 74%	75% - 84%
		5 More is Expected	4 Meets Most Expectations	3 Consistently Meets Expectations	2 Frequently Exceeds Expectations	1 Creates Exceptional Value

Performance Objectives (What)

Proposed Distribution Guidelines	
0% - 20%	5%
21% - 34%	10%
35% - 49%	20%
50% - 74%	30%
75% - 84%	20%
85% - 94%	10%
95% - 100%	5%

Note:
%ages shown relate to the %age achieved as a %age of maximum for the Individual Objectives part of the bonus only.

Schedule
NG-WFD-5

Schedule NG-WFD-5

US Employee Guide (Band F)

EMPLOYEE GUIDE TO

THE

ANNUAL BONUS PLAN

US – Band F

2008/2009

Dear colleague

During 2007, we made significant changes to our Company including the merger with KeySpan (which has doubled the size of our US operations) and the reorganisation of our activities around Global Lines of Business.

In order to realise our potential, we need to improve performance across the business on a financial basis, but also in everything we do. We have started this work by identifying ways to fully integrate our operations and deploy best practice and common processes across the organisation.

This performance philosophy flows through to our annual bonus plan, which after having operated Performance For Growth in 2007/08 for Bands A and B, will be cascaded down in 2008/09 to Band D (UK) and Band F (US).

This guide provides information about how the annual bonus plan will operate and your Manager will discuss this further with you over the next few weeks.

Steve Holliday
Chief Executive

1 Introduction

This guide summarises the main provisions of the National Grid Annual Bonus Plan 2008/09 (the "**Plan**") and highlights the general operation of the plan. The Plan has been approved by the Executive Directors and they have absolute discretion over the operation and design of the Plan (see section 7 for further detail).

The Plan is intended to motivate employees to achieve the highest possible financial and individual performance, whilst ensuring that at all times, all safety, health and environment requirements are adhered to, all standards of service are achieved and shareholder expectations reached. In short, all our stakeholders should benefit from the Plan.

Stretching financial targets and individual objectives will be set, as soon as practicable, after the start of the Plan year (April each year).

2 Plan Summary

50% of the maximum bonus opportunity will be based on financial targets and 50% will be based on individual objectives.

2.1 Financial Targets

Within the 50% for financial targets, 20% is based on Group Earnings per Share (Group EPS) and the remaining amount for the financial element of the bonus is based on appropriate Line of Business/Shared Services/IS ("LOB") targets e.g. operating profit or any other appropriate targets set by the relevant Executive Director.

2.2 Individual objectives

Four or five key individual objectives are set. They should be stretching, measurable and achievable.

When assessing achievement of the individual objectives, equal importance is attributed to performance against the Leadership Qualities (see attached Appendix 1).

The performance assessment will result in a rating using the National Grid Rating Scale of 1 to 5 (See Appendix 2).

3 Performance Reviews

Your manager will discuss performance against targets and objectives with you on a regular basis throughout the year. An interim review will be undertaken part way through the year to formally assess progress and a year end review will be undertaken to assess final performance. It is both your responsibility and your Manager's to ensure these discussions take place. They can be effective only by clearly articulating progress and expectations; and by providing an opportunity for constructive two way dialogue. Assessment of performance against individual objectives is based on the what and how ratings as shown below.

Performance Grid Rating Matrix

Leadership Qualities (How)						
Strongly Demonstrated	1	5/1	4/1	3/1	2/1	1/1
Demonstrated	2	5/2	4/2	3/2	2/2	1/2
Not Demonstrated Consistently	3	5/3	4/3	3/3	2/3	1/3
		5	4	3	2	1
		More is Expected	Meets Most Expectations	Consistently Meets Expectations	Frequently Exceeds Expectations	Creates Exceptional Value

Performance Objectives (What)

4 Worked Example

The attached example shows how the assessment process works. The example is based on an employee who has a maximum bonus opportunity of 10% of salary. 50% of the bonus is based on financial targets and 50% on individual objectives.

On this basis, 5% of salary is based on financial targets and 5% of salary is based on individual objectives.

See Appendices 3 and 4 and read in conjunction with the following notes.

4.1 Notes to Example

The Company achieves stretch performance (**2%)** for Group EPS and target (**1.35%**) for Business Unit Operating Profit. See Appendix 3.

2.00%	- Group EPS **+**
1.35%	- LOB Operational Profit
3.35%	- **Total**

In this example, the manager determines the employee frequently exceeds expectations with regard to performance objectives and demonstrated the Leadership Qualities. The manager therefore determines the employee will be in a 2/2 position overall (i.e. Performance "v" Leadership Qualities) and that 80% of the maximum available for individual performance will be paid. See Appendix 4.

As such **80% x 5% = 4%**. This is then added to the total for financial targets **(3.35%)**. Consequently, the bonus achieved is **7.35%** out of a bonus maximum of **10%**. Therefore, the employee will receive **7.35% of their salary as a bonus.**

Note: There is discretion to reduce payments to take account of significant safety, service standard incidents and environmental issues.

5 Payment of the Bonus

Your bonus is payable in June and is subject to tax withholdings.

6 Ceasing to be employed

If you cease to be an employee during the Plan year, a discretional cash payment may be paid to you, but this will depend on the circumstances of your leaving.

7 Limitations of the Plan

The Company may amend, suspend or terminate all or any part of the Plan at any time.

Participation in, and the operation of, the Plan will not form part of or affect your contract of employment or your employment relationship, nor will they give you the right to continued employment. Participation in one year of the Plan does not indicate that you will participate, or be considered for participation, in any future years. You are not entitled to any compensation or other benefit in respect of the Plan.

APPENDIX 1

Leadership Qualities (the "how")

- **Lives the National Grid values**
- **Creates the future**
- **Consistently delivers great performance**
- **Builds relationships**
- **Develops self and others**

Full details of the Leadership Qualities are included in the Performance For Growth Guidelines.

APPENDIX 2

Performance Rating Definitions (the "what")

Creates Exceptional Value (1) — to achieve a rating in this category means the employee **creates exceptional value in most, if not all, business objectives,** frequently exceeding expectations, and achieving maximum measures of success. Employees in this category:

- ❑ Frequently achieve stretch levels of performance
- ❑ Drive optimal results

Frequently Exceeds Expectations (2) — to achieve a rating in this category means the employee **frequently exceeds expectations in most, if not all, business objectives,** achieving above target measures of success. Employees in this category:

- ❑ Excel at contributing to achievement of targeted goals within their job role and frequently achieve above target levels.
- ❑ Deliver strong results.

Consistently Meets Expectations (3) — to achieve a rating in this category means the employee **consistently meets expectations and has exceeded in a few business objectives**. Employees in this category:

- ❑ Consistently contribute to achievement of the success of the business unit by meeting all goals and exceeding some.
- ❑ Are reliable and dependable in the performance of day-to-day and stretch objectives.

Meets Most Expectations (4) — to achieve a rating in this category means the employee **meets most expectations in business objectives**, achieving some target measures of success. Employees in this category:

- ❑ Contribute to achievement of goals and success of the immediate business area.
- ❑ Have one or more business objectives that have not been fully realised.

More Is Expected (5) — to receive a rating in this category means that **more is expected of the employee in order to achieve target measures of success and/or to improve a significant shortcoming in one or more business objectives**. Employees in this category:

- ❑ Meet minimum requirements of the job; and have required job skills.
- ❑ Deliver results asked for, but do not demonstrate strong initiative to contribute to the success of the team or the work without direction.
- ❑ Deliver limited added value to the business area.

Annual Bonus Targets for 2008/09

Appendix 3

Overall bonus plan structure

	Maximum bonus potential (% of salary)	Company		LOB		Individual	
		of bonus	*of salary*	of bonus	*of salary*	of bonus	*of salary*
Total	**10%**	20%	***2%***	30%	***3%***	50%	***5%***

Company Financial measures

	Threshold (10%) of Bonus		Target (45%) of Bonus		Stretch (100%) of Bonus		Actual	
	Required result	% salary	Required result	% salary	Required result	% salary	Result achieved	% of salary
EPS	G1	0.2	G2	0.9	G3	2	**G3**	**2**

LOB Financial measures

	Threshold (10%) of Bonus		Target (45%) of Bonus		Stretch (100%) of Bonus		Actual	
	Required result	% salary	Required result	% salary	Required result	% salary	Result achieved	% of salary
Operating Profit	X1	0.3	X2	1.35	X3	3	**X2**	**1.35**

Appendix 4

Bonus Rating Matrix

Leadership Qualities (How)		**5** More is Expected	**4** Meets Most Expectations	**3** Consistently Meets Expectations	**2** Frequently Exceeds Expectations	**1** Creates Exceptional Value
Strongly Demonstrated	**1**	**35% - 49%**	**50% - 74%**	**75% - 84%**	**85% - 94%**	**95% - 100%**
Demonstrated	**2**	**21% - 34%**	**35% - 49%**	**50% - 74%**	**75% - 84%**	**85% - 94%**
Not Demonstrated Consistently	**3**	**0% - 20%**	**21% - 34%**	**35% - 49%**	**50% - 74%**	**75% - 84%**

Performance Objectives (What)

Proposed Distribution Guidelines	
0% - 20%	**5%**
21% - 34%	**10%**
35% - 49%	**20%**
50% - 74%	**30%**
75% - 84%	**20%**
85% - 94%	**10%**
95% - 100%	**5%**

Note:
%ages shown relate to the %age achieved as a %age of maximum for the Individual Objectives part of the bonus only.

Schedule
NG-WFD-6

Schedule NG-WFD-6

Competitive Assessment of Non-Union Compensation (Towers Perrin, 11/13/08)

National Grid USA

Competitive Assessment of Non-Union Compensation

Outline Prepared by Towers Perrin

Michael J. Carter
Richard Meischied

November 13, 2008

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COMPETITIVE ASSESSMENT OF NON-UNION COMPENSATION

Introduction

National Grid asked Towers Perrin to conduct a competitive assessment of the Company's compensation relative to the energy services marketplace. The analysis was focused on the exempt non-union workforce with salary levels ranging from $40,000 to approximately $190,000. The research addressed the competitiveness of base salary and base salary plus incentive compensation relative to the marketplace.

In addition to reviewing the competitiveness of National Grid pay, we were also asked to research the prevalence of incentive compensation in energy services companies for employees at these levels. Thus, the second section of this outline addresses the prevalence of incentive compensation in the marketplace.

Towers Perrin's research was conducted by Michael Carter and Richard Meischeid, both Principals of the firm. A description of Towers Perrin and biographies for Michael Carter and Richard Meischeid are contained in the Appendix I and II, respectively.

Approach to Assessing Pay Competitiveness and Determining the Prevalence of Incentive Compensation

Market pay information was gathered from Towers Perrin's 2008 Energy Services Middle Management and Professional Compensation Database. This survey is the most comprehensive middle management and professional compensation database for the U.S. electric and gas industry. Selected descriptive information about the database follows below:

	2008
■ Participating companies	123
■ Number of incumbents reported	116,000

For this specific analysis, market pay data, including base salary and annual incentives, was gathered for a cross-section of over 400 National Grid positions covering over 5000 incumbents. National Grid compensation was compared with surveyed levels among:

- All 2008 survey participants nationally (123 energy services companies)
- Energy Services Companies with Revenues Over $6 billion plus selected large regional utilities (38 participants).

The comparison against all survey participants provides a snapshot of National Grid competitiveness against a broad sample of companies. The comparison with larger utilities provides a snapshot of Company competitiveness against companies of similar size. Lists of participating companies included in both survey samples are included in Appendix III.

We assessed the overall competitiveness of pay for all National Grid positions combined, but also arrayed our findings by salary level to illustrate competitiveness at relevant organizational levels within National Grid.

Market data reflects survey participants' salaries in effect as of April, 2008 and incentives largely reflect 2008 payouts for the 2007 fiscal year performance. National Grid data reflect salaries in effect as of November, 2008 and incentives reflect June 15, 2008 awards paid for fiscal year 2007 performance (April 2007 through March 2008).

Incentive compensation market prevalence information was gathered from Towers Perrin's 2007 and 2008 Energy Services Middle Management and Professional Compensation Database.

Two years' data (2007-2008) on bonus practices was gathered to not only capture practices in 2008, but to also detail trends in bonus practices over the last two years. We have arrayed bonus prevalence information for all survey participants as well as for energy services companies with revenues over $10 billion. Names of participating companies in the 2007 and 2008 surveys are provided in Appendix IV and Appendix V.

Findings – Competitiveness of Pay

The analysis shows that National Grid actual salaries and salaries plus 2008 actual incentive payouts are competitive with the broad (all participants) sample of companies and somewhat below similarly sized energy services companies.

	National Grid Compensation as a Percent of Market	
	All Participants	Similar-Size Companies
Base Salary	102%	99%
Base Salary Plus Incentives	99	94

National Grid's competitiveness, when viewed by salary level, generally follows the trend of the consolidated findings illustrated above.

	National Grid Compensation as a Percent of Market			
	All Participants		Similar-Size Companies	
Market Salary Bands	Salary	Salary Plus Incentive	Salary	Salary Plus Incentive
$ 40,000 – $ 60,000	111%	107%	110%	104%
$ 60,000 – $ 80,000	102	99	100	95
$ 80,000 – $100,000	102	100	99	95
$100,000 – $120,000	101	98	98	93
$120,000 – $140,000	99	95	100	95
$140,000 – $160,000	94	86	95	87
>$160,000	83	77	81	74
Average	102%	99%	99	94

The data also indicates that, on average, larger energy services companies in the marketplace have higher levels of compensation. Given that National Grid is among the largest energy services companies, we believe the more appropriate comparison is with companies of similar size (in terms of revenue).

Findings – Prevalence of Incentive Compensation

The data in Towers Perrin's Energy Services surveys clearly demonstrate that incentive plans are prevalent in U.S. energy services companies and have become a standard component of the compensation package provided to employees. The results from both the 2007 and 2008 surveys indicate that over 95% of the participants have incentive compensation programs and offer incentive pay to their employees.

The two charts below capture the prevalence of incentive compensation eligibility at different pay levels among all participating energy services organizations and in energy services companies with revenue greater than $10 billion, respectively. The charts detail the number of incumbents reported by participants, the percentage of these incumbents eligible at different salary levels as well as the percentage of incumbents actually receiving awards.

The first chart indicates that when we examine the results for all participating organizations, over 90% of the incumbents are eligible and receive incentive compensation.

Percentage of Incumbents Eligible For and Receiving Incentive Awards:
Total Sample of Energy Services Participants

	2008			2007		
Base Salary Range	# Incumbents Reported	% Eligible	% Receiving	# Incumbents Reported	% Eligible	% Receiving
$40,000 to $45,000	1,082	91%	89%	935	88%	87%
$45,000 to $50,000	1,795	90%	87%	1,507	91%	90%
$50,000 to $55,000	2,605	89%	83%	2,702	88%	85%
$55,000 to $60,000	3,922	88%	82%	3,683	92%	89%
$60,000 to $65,000	5,163	92%	88%	4,476	94%	92%
$65,000 to $70,000	6,126	94%	90%	6,048	94%	93%
$70,000 to $75,000	7,840	94%	91%	7,813	95%	94%
$75,000 to $80,000	9,442	95%	92%	8,819	96%	94%
$80,000 to $85,000	10,367	95%	92%	10,142	96%	95%
$85,000 to $90,000	11,049	95%	93%	9,653	96%	95%
$90,000 to $95,000	10,133	95%	93%	8,790	96%	94%
$95,000 to $100,000	8,679	94%	93%	7,031	95%	94%
$100,000 to $110,000	12,343	95%	94%	9,231	97%	96%
$110,000 to $120,000	6,731	96%	95%	4,798	96%	95%
$120,000 to $130,000	3,895	96%	95%	2,502	97%	97%
$130,000 to $140,000	2,158	96%	95%	1,383	98%	97%
$140,000 to $150,000	1,258	97%	96%	734	97%	96%
$150,000 to $160,000	774	95%	94%	468	99%	98%
$160,000 to $170,000	478	96%	95%	249	99%	99%
$170,000 to $180,000	271	96%	96%	170	99%	98%
$180,000 to $190,000	150	90%	90%	87	99%	99%
Greater Than $190,000	125	89%	89%	97	100%	99%

The prevalence of incentive eligibility and payment of awards is even higher in larger energy services companies (defined as organizations with revenues greater than $10 billion).

Percentage of Incumbents Eligible For and Receiving Incentive Awards: Energy Services Companies with Revenues over $10 billion

	2008			2007		
Base Salary Range	# Incumbents Reported	% Eligible	% Receiving	# Incumbents Reported	% Eligible	% Receiving
$40,000 to $45,000	573	97%	95%	384	99%	98%
$45,000 to $50,000	955	96%	93%	581	100%	98%
$50,000 to $55,000	1,284	97%	90%	1,112	99%	96%
$55,000 to $60,000	1,874	98%	92%	1,600	100%	98%
$60,000 to $65,000	2,615	99%	96%	1,914	100%	99%
$65,000 to $70,000	3,018	98%	97%	2,801	100%	99%
$70,000 to $75,000	3,969	99%	98%	3,698	100%	99%
$75,000 to $80,000	5,017	99%	98%	4,346	100%	99%
$80,000 to $85,000	5,475	98%	98%	5,097	100%	99%
$85,000 to $90,000	6,181	98%	97%	4,941	100%	99%
$90,000 to $95,000	5,894	99%	98%	4,777	100%	99%
$95,000 to $100,000	5,163	99%	99%	3,905	100%	100%
$100,000 to $110,000	7,406	99%	99%	5,222	100%	99%
$110,000 to $120,000	4,171	99%	99%	2,792	100%	99%
$120,000 to $130,000	2,442	99%	99%	1,413	100%	100%
$130,000 to $140,000	1,377	99%	99%	762	100%	100%
$140,000 to $150,000	807	99%	99%	380	100%	100%
$150,000 to $160,000	502	99%	99%	256	100%	100%
$160,000 to $170,000	311	99%	98%	138	100%	100%
$170,000 to $180,000	178	98%	97%	97	100%	100%
$180,000 to $190,000	113	99%	99%	43	100%	100%
Greater Than $190,000	92	100%	100%	58	100%	100%

Observations

Based on the analysis of the market data we conclude that National Grid compensation (both salaries and incentive levels) are competitively aligned with national market levels, but slightly below energy services companies of similar size. The data also shows that incentives are prevalent at the pay levels we examined and are almost universal. Today, nearly all utilities use annual incentives as a component of their total cash compensation program.

To attract and retain talented employees in today's highly competitive market; companies must offer a competitive total rewards program, including compensation, retirement program, health and welfare benefits, and learning and development opportunities. Annual incentives are used widely in the utility industry and have become a standard component of the compensation package provided to employees. The increased use of incentives reflects a shift in the overall mix in compensation in the industry to emphasize pay for performance. Thus, incentive compensation is not "additional" or "optional" compensation that employers provide to employees, but a required element in the compensation program and a necessary cost of doing business. Moreover, incentive compensation offers businesses a vehicle to maintain a portion of compensation in variable form, that is paid only if results are delivered, rather than increasing fixed costs by delivering all elements of cash compensation in the form of salary.

DESCRIPTION OF TOWERS PERRIN

Towers Perrin is a global professional services firm that helps organizations around the world optimize performance through effective people, risk and financial management.

Our Human Capital Group provides global human resource consulting and related services that help our clients effectively manage their investment in people. Our areas of focus include:

Workforce Effectiveness: Defining the people and skills you need — and when and where you need them — and the culture and environment required to sustain high performance

Total Rewards Effectiveness: Identifying the optimal investment in, and mix of, pay, benefits and other rewards to attract, retain and engage employees, and designing programs that deliver value for cost

Human Resource Function Effectiveness: Understanding the role, structure and capability of the HR function in delivering the right environment and rewards, and the delivery mechanisms best suited for the company and its needs

Operational and Financial Effectiveness: Creating an efficient and cost-effective financial, governance and administrative infrastructure for people programs.

We approach all our work from a single perspective: *Does it help deliver measurable business results to your organization?*

Establishing a link from HR programs, to employee behavior, to business results guides everything we do. Our services are focused on helping companies manage people costs and risk, enhancing employee and organizational performance, delivering HR services more efficiently, and managing small- and large-scale change, particularly in a merger, acquisition or divestiture.

MANAGING CHANGE
- Change strategy, leadership support and culture management
- Talent management, including succession planning and employee engagement
- HR and reward communication
- Employee and organization research
- Culture and program assessments
- Performance linkage analysis
- Workforce analysis and planning
- M&A support

MANAGING BENEFITS
RETIREMENT
- Benefit strategy and program design
- Retirement financial management
- Actuarial services
- Compliance
- Asset consulting
- Asset/liability forecasts

HEALTH AND WELFARE
- Health care strategy
- Program governance, measurement and monitoring
- Design and pricing
- Care/disease management
- Pharmacy benefit consulting
- Disability management
- Dental and life insurance consulting

MANAGING PAY
- Executive compensation strategy and program design
- Director compensation and plan design
- Broad-based reward strategy and program design
- Total rewards optimization
- Performance management
- Job evaluation
- Sales compensation and measurement
- Compensation administration

BUILDING AN EFFECTIVE HR ORGANIZATION
- HR function strategy
- HR function design
- HR sourcing strategy
- HR service delivery strategy
  - Web portal design and application development
  - Employee/manager self-service
- HR technology
  - Systems consulting
  - ERP (HRMS) implementation, including Oracle/PeopleSoft and SAP
- Administration
  - Open enrollment
  - Benefit statements
  - Online SPDs

USING DATA FOR DECISION SUPPORT
- Comp Online™
- Benefits Online™
- Executive Compensation Resources (ECR)™
- Industry, region and custom surveys

OUTSOURCING THROUGH EXCELLERATEHRO™
- Benefit administration
- Compensation management
- Payroll
- Recruiting and staffing
- Workforce development
- Workforce administration

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BIOGRAPHIES:
MICHAEL CARTER AND RICHARD MEISCHEID

MICHAEL CARTER

Mike Carter is a Principal of Towers Perrin and Head of the New England Executive Compensation practice. His field of specialization is in the design and installation of key executive short- and long-term incentives, total reward systems, field sales programs and performance management programs.

In his 29 years with Towers Perrin, Mike has worked on numerous compensation assignments for a variety of industrial, energy, service and financial services companies including: BIC Corporation, BJ's Wholesale Club, CEMEX, DENTSPLY International, Eastern Bank, Grupo Modelo, IDEXX Pharmaceuticals, Iron Mountain, Massachusetts Medical Society, National Grid and TD Banknorth.

Prior to coming to Boston in 1981, Mike worked at Towers Perrin's Caracas and New York consulting offices. Mr. Carter received his Bachelors and Masters degrees from the University of Miami.

RICHARD MEISCHEID

Mr. Meischeid is a Managing Principal with responsibility for directing Towers Perrin's compensation consulting practice in the east region. He joined Towers Perrin in 1978 and was elected a Principal of the firm in 1983.

Richard has over twenty-five years experience in working with Boards of Directors and management on executive compensation issues. He has long-term relationships with several clients where he serves as the compensation consultant to the board and management including:

American Electric Power, Circuit City, Equitable Resources, Exelon, Hercules, Nicor, PPL Corporation, Sierra Pacific, Southern Company, Sunoco, PSEG, The VF Corporation, TXU, UGI and Unisys.

Richard is a frequent presenter at compensation and industry meetings on a wide range of topics including annual and long-term incentive plan design, board of director compensation and governance.

Before joining Towers Perrin, Richard was associated with The Wharton School of the University of Pennsylvania, where he served as a graduate teaching assistant. He was a founding member of The Wharton Entrepreneurial Center. Richard graduated from St. Francis College in 1970 and earned an M.B.A. from The Wharton School in 1978.

2008 U.S. CDB Energy Services Middle Management and Professional Database Participant Listing – November 2008

Company	Company	Company
AGL Resources	Great Plains Energy	Targa Resources
Allegheny Energy	Great River Energy	TECO Energy
Allete	Hawaiian Electric	Tennessee Valley Authority
Alliance Pipeline	IDACORP	TransAlta
Alliant Energy	Idaho National Laboratory	TransCanada
Ameren	Integrys Energy Group	UIL Holdings
American Electric Power	JEA	UniSource Energy
Areva NP	KAPL	Unitil
Ashmore Energy International	Knight	USEC
ATC Management	Lower Colorado River Authority	Vectren
Avista	McDermott	Westar Energy
Bechtel Bettis	MGE Energy	Westinghouse Electric
BG US Services	Mirant	Williams Companies
California Independent System Operator	Nebraska Public Power District	Wisconsin Energy
Calpine	New York Independent System Operator	Wolf Creek Nuclear
CenterPoint Energy	New York Power Authority	Xcel Energy
Central Vermont Public Service	Nicor	
CH Energy Group	NiSource	
City Public Service	Northeast Utilities	
Cleco	Northrop Grumman Newport News	
CMS Energy	NorthWestern Energy	
Colorado Springs Utilities	NOVA Chemicals	
Consolidated Edison	NRG Energy	
Constellation Energy	NSTAR	
Covanta Energy	NW Natural	
Crosstex Energy	OGE Energy	
Dominion Resources	Oglethorpe Power	
DPL	Old Dominion Electric	
DTE Energy	Omaha Public Power	
Duke Energy	ONEOK	
Duquesne Light	Otter Tail	
Dynegy	Pacific Gas & Electric	
East Kentucky Power Cooperative	PacifiCorp	
Edison International	Pepco Holdings	
Electric Energy	Pinnacle West Capital	
Electric Power Research Institute	PNM Resources	
El Paso Corporation	Portland General Electric	
El Paso Electric	PPL	
Enbridge Energy	Progress Energy	
Energy Future Holdings	Public Service Enterprise Group	
Energy Northwest	Puget Energy	
Entergy	Questar	
E.ON U.S.	Reliant Energy	
EPCO	Salt River Project	
Epcor	SCANA	
Equitable Resources	Seminole Energy Services	
Eugene Water & Electric Board	Sempra Energy	
Exelon	Sierra Pacific Resources	
FirstEnergy	Southern Company Services	
Fluor	Southern Union Company	
FPL Group	Spectra Energy	
Garland Power & Light	STP Nuclear Operating	
	SUEZ Energy North America	

2008 U.S. CDB Energy Services Middle Management and Professional Database
Participant Listing -- November 2008
Companies with Revenues Greater than $6 Billion Plus Selected Regional Energy Services Companies

Company	Company
Allegheny Energy	Fluor
Ameren	FPL Group
American Electric Power	Integrys Energy Group
Calpine	NiSource
CenterPoint Energy	Northeast Utilities
CMS Energy	NOVA Chemicals
Consolidated Edison	NRG Energy
Constellation Energy	NSTAR
DCP Midstream	ONEOK
Dominion Resources	Pacific Gas & Electric
DTE Energy	Pepco Holdings
Duke Energy	PPL
Edison International	Progress Energy
Enbridge Energy	Public Service Enterprise Group
Energy Future Holdings	Reliant Energy
Entergy	Sempra Energy
EPCO	Southern Company Services
Exelon	Williams Companies
FirstEnergy	Xcel Energy

2007 CDB Energy Services Middle Management and Professional Database
Participant Listing – November 2008

Company	Company	Company
AES Southland	FirstEnergy	Spectra Energy
AGL Resources	FPL Group	STP Nuclear Operating
Allegheny Energy	Great Plains Energy	SUEZ Energy North America
Allete	Hawaiian Electric	Targa Resources
Alliance Pipeline	IDACORP	TECO Energy
Alliant Energy	Idaho National Laboratory	Tennessee Valley Authority
Alyeska Pipeline Service	ITC Holdings	TransAlta
Ameren	JEA	TransCanada
American Electric Power	KAPL	UIL Holdings
Areva NP	KeySpan	UniSource Energy
Ashmore Energy International	Lower Colorado River Authority	Unitil
ATC Management	McDermott	USEC
Atmos Energy	MGE Energy	Vectren
Avista	Mirant	Westar Energy
Black Hills Power and Light	Nebraska Public Power District	Westinghouse Electric − Energy Division
California Independent System Operator	New York Independent System Operator	Williams Companies
Calpine	New York Power Authority	Wisconsin Energy
CenterPoint Energy	Nicor	Wolf Creek Nuclear
Central Vermont Public Service	Northeast Utilities	Xcel Energy
CH Energy Group	Northrop Grumman Newport News	
Cheniere Energy	NorthWestern Energy	
City of Austin	NRG Energy	
City Public Service	NSTAR	
Cleco	Nuclear Management	
CMS Energy	NW Natural	
Colorado Springs Utilities	OGE Energy	
Consolidated Edison	Oglethorpe Power	
Constellation Energy	Old Dominion Electric	
Crosstex Energy	Omaha Public Power	
Dominion Resources	ONEOK	
DPL	Otter Tail	
DTE Energy	Pacific Gas & Electric	
Duke Energy	PacifiCorp	
Duquesne Light	Pepco Holdings	
Dynegy	Pinnacle West Capital	
East Kentucky Power Cooperative	PNM Resources	
Edison International	Portland General Electric	
Electric Energy	PPL	
Electric Power Research Institute	Progress Energy	
El Paso Corporation	Public Service Enterprise Group	
El Paso Electric	Puget Energy	
Enbridge Energy	Questar	
Energy Future Holdings	Reliant Energy	
Energy Northwest	Salt River Project	
Enron	Santee Cooper	
Entergy	SCANA	
E.ON U.S.	Seminole Energy Services	
EPCO	Sempra Energy	
Equitable Resources	Sierra Pacific Resources	
Eugene Water & Electric Board	Southern Company Services	
Exelon	Southern Union Company	

2007 CDB Energy Services Middle Management and Professional Database
Participant Listing – November 2008 – Companies with Revenues Greater Than $10 Billion

Company

American Electric Power
Consolidated Edison
Constellation Energy
Dominion Resources
Duke Energy
Edison International
Energy Future Holdings
Entergy
EPCO
Exelon
FirstEnergy
FPL Group
ONEOK
Pacific Gas & Electric
Public Service Enterprise Group
Reliant Energy
Sempra Energy
Southern Company Services
Williams Companies

2008 U.S. CDB Energy Services Middle Management and Professional Database Participant Listing – November 2008

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Allegheny Energy	Great River Energy	TECO Energy
Allete	Hawaiian Electric	Tennessee Valley Authority
Alliance Pipeline	IDACORP	TransAlta
Alliant Energy	Idaho National Laboratory	TransCanada
Ameren	Integrys Energy Group	UIL Holdings
American Electric Power	JEA	UniSource Energy
Areva NP	KAPL	Unitil
Ashmore Energy International	Knight	USEC
ATC Management	Lower Colorado River Authority	Vectren
Avista	McDermott	Westar Energy
Bechtel Bettis	MGE Energy	Westinghouse Electric
BG US Services	Mirant	Williams Companies
California Independent System Operator	Nebraska Public Power District	Wisconsin Energy
Calpine	New York Independent System Operator	Wolf Creek Nuclear
CenterPoint Energy	New York Power Authority	Xcel Energy
Central Vermont Public Service	Nicor	
CH Energy Group	NiSource	
City Public Service	Northeast Utilities	
Cleco	Northrop Grumman Newport News	
CMS Energy	NorthWestern Energy	
Colorado Springs Utilities	NOVA Chemicals	
Consolidated Edison	NRG Energy	
Constellation Energy	NSTAR	
Covanta Energy	NW Natural	
Crosstex Energy	OGE Energy	
Dominion Resources	Oglethorpe Power	
DPL	Old Dominion Electric	
DTE Energy	Omaha Public Power	
Duke Energy	ONEOK	
Duquesne Light	Otter Tail	
Dynegy	Pacific Gas & Electric	
East Kentucky Power Cooperative	PacifiCorp	
Edison International	Pepco Holdings	
Electric Energy	Pinnacle West Capital	
Electric Power Research Institute	PNM Resources	
El Paso Corporation	Portland General Electric	
El Paso Electric	PPL	
Enbridge Energy	Progress Energy	
Energy Future Holdings	Public Service Enterprise Group	
Energy Northwest	Puget Energy	
Entergy	Questar	
E.ON U.S.	Reliant Energy	
EPCO	Salt River Project	
Epcor	SCANA	
Equitable Resources	Seminole Energy Services	
Eugene Water & Electric Board	Sempra Energy	
Exelon	Sierra Pacific Resources	
FirstEnergy	Southern Company Services	
Fluor	Southern Union Company	
FPL Group	Spectra Energy	
Garland Power & Light	STP Nuclear Operating	
	SUEZ Energy North America	

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Exelon
FirstEnergy
Fluor
FPL Group
Integrys Energy Group
ONEOK
Pacific Gas & Electric
Public Service Enterprise Group
Reliant Energy
Sempra Energy
Southern Company Services
Williams Companies
Xcel Energy

Schedule
NG-WFD-7

Schedule NG-WFD-7

Comparison of Rhode Island Wages to New England Wages

Narragansett Electric Company
2009 Regional Pay Scales

Job Code	Job Title	Salary Band	2009 NE MRP (000's)	2009 Prov. MRP (000's)	Diff %
1400	Administrative Assistant	F1	$48.00	$45.10	**-6.0%**
3000	Analyst (Budget)	E1	$66.74	$65.20	**-2.3%**
2000	Asc Analyst (Budget)	F2	$54.05	$52.80	**-2.3%**
2000	Asc Analyst (Benefit)	F2	$54.10	$52.40	**-3.1%**
2500	Asc Engineer	F2	$60.00	$63.60	**6.0%**
3500	Engineer	E1	$72.00	$79.30	**10.1%**
3600	Envrmtl Engineer	E2	$92.00	$88.90	**-3.4%**
3101	HRIS Analyst	E1	$66.74	$68.10	**2.0%**
3100	Human Resources Rep	E1	$66.74	$65.20	**-2.3%**
2003	Lead Analyst (Budget)	D1	$97.76	$98.10	**0.3%**
2003	Lead Analyst (Benefit)	D1	$97.76	$93.80	**-4.1%**
2003	Lead Analyst (HRIS)	D1	$97.76	$97.90	**0.1%**
8101	Lead LR Rep	D1	$97.76	$102.10	**4.4%**
3041	Lead Sr Engineer	D1	$104.00	$108.10	**3.9%**
4605	Lead Sr Env Engineer	D1	$104.00	$104.00	**0.0%**
8623	Mgr HR Systems	D1	$97.76	$119.20	**21.9%**
5500	Prin Engineer	D2	$113.00	$126.40	**11.9%**
4601	Prin Evrmtl Engr	D1	$104.00	$112.40	**8.1%**
8507	Project Manager	D1	$97.76	$111.50	**14.1%**
4560	Sr Acctg Analyst	E2	$80.84	$79.30	**-1.9%**
4500	Sr Engineer	E2	$92.00	$92.30	**0.3%**
4101	Sr HRIS Analyst	E2	$80.84	$85.20	**5.4%**
4100	Sr Human Resources Rep	E2	$80.84	$78.40	**-3.0%**
8745	Superintendent	D1	$97.76	$102.90	**5.3%**
7465	Supervisor	E1	$66.74	$65.50	**-1.9%**
7410	Svr Accts Payable	E2	$80.84	$77.20	**-4.5%**
8622	Svr T & D	E2	$90.00	$88.10	**-2.1%**

Schedule NG-WFD-8

National Grid USA Companies Union Wage Comparison

NATIONAL GRID USA COMPANIES

UNION WAGE COMPARISONS

COMPANY	TROUBLE SHOOTER	CREW LEADER	1/C LINE WORKER	LEAD SPLICER	SPLICER	1/C O&M WORKER	METER WORKER	SR. CUST SERV REP
N-STAR	$38.84	$38.36	$36.44	$35.04	$34.81	$36.41	$35.09	$31.84
CONN. LIGHT & POWER	36.93	37.04	36.06	35.80	35.00	35.00	33.09	
WESTERN MA ELEC	35.23	36.29	35.27	35.40	34.65	34.99	32.93	
UNITED ILLIMUNATING	$35.46	$37.19	$35.46	None	$32.74	$35.46	$35.46	$29.20
PEABODY (Muni)	None	None	$36.24	None	None	None	$31.17	$23.69
TAUNTON (Muni)	None	None	$42.59	None	None	None	$35.39	$25.81
UNITIL	$34.12	$36.46	$33.45	$36.56	$33.17	$31.08	$30.35	Non Union
PSNH	None	Non-Union	$32.30	None	None	$30.46	$29.84	Non Union
CENTRAL MAINE POWER								
NATIONAL GRID - NY	$39.87	$39.87	$36.00	$36.52	$33.21	$31.92	$31.92	$16.58
NATIONAL GRID - NE*	$39.41	$39.41	$36.00	$37.70	$34.30	$35.05	$31.38	$22.76
Median Rate	$36.93	$37.19	$36.00	$36.16	$34.30	$35.00	$32.43	$24.75
Average Rate	$37.12	$37.80	$35.98	$36.17	$33.98	$33.80	$32.66	$24.98
Maximum Rate	$39.87	$39.87	$42.59	$37.70	$35.00	$36.41	$35.46	$31.84

04/08/2009

Schedule
NG-WFD-9

Schedule NG-WFD-9

BENVAL Analysis for Union Benefits (Tower Perrin, 10/9/08)

TOWERS PERRIN

National Grid

BENVAL Analysis for Union Benefits

October 9, 2008

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Table of Contents

- Overview of Competitive Assessment
- Entire Benefit Program
- Retirement Benefits
- Active Benefits
- Summary

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Overview of Competitive Assessment

- Towers Perrin conducted a benefit program benchmarking analysis comparing benefit levels for both legacy National Grid unions - New England (NGG-U) and New York (NGGN-U) - relative to the union benefit programs for 14 peer organizations. This analysis was based on 2008 benefit programs for the National Grid Unions as well as the comparator groups

- Included throughout this document, we have included plan summary charts for each benefit
  - In the Retirement section, we provide plan summaries for each benefit program for each National Grid Union
  - In the Active section, we provide plan summaries for each benefit program and each National Grid Union, as well as ranges (the lowest to highest value for the group of values), averages (the mean of a group of values), and modes (the most frequent value in a group of values), where possible for the competitor group; where averages could not be calculated, we calculated a range and mode only

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Overview of Competitive Assessment

- The analysis was based on individual employer plan provisions as provided by each organization applied to a standard population, using consistent economic and demographic assumptions, thereby measuring the "financial value" of the plan, not the actual cost of the plan
  - BENVAL® determines a value for these benefits by applying a standard methodology to a standard employee population
  - Plan provisions valued are those that apply to newly hired employees
- Benefit programs are:
  - Compared on a relative value basis between employers -- a score of 100 represents the average value for the comparator group
  - Scores are determined on a dollar value basis relative to the average value
- Throughout this document, "Total Value" refers to the positioning of the benefit programs including the value of employee contributions, whereas "Employer Value" refers to the value after employee contributions have been deducted
- The total benefit values are primarily driven by the value of the retirement plans, active and post-retirement medical plans, and vacation and holiday programs, which comprise the vast majority of the program values

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Entire Benefit Program

Entire Benefit Program Score and Rank	Score	Rank/16
Employer Value		
National Grid New York Union	107.9	5
National Grid New England Union	96.6	10
Total Value		
National Grid New York Union	101.7	8
National Grid New England Union	98.5	10

- National Grid's New York Union Employer Value of 107.9 indicates that the package of benefits, excluding the value of employee contributions, is more generous than the average program value; the value is reduced to 101.7, or just about average, when also considering the value of employee contributions to the various programs
  - The higher than average employer value is primarily the result of a more generous active and retiree medical program and slightly more generous vacation and holiday program as compared to peer organizations, partly offset by a lower than average retirement (defined benefit/defined contribution) value
- National Grid's New England Union Employer Value of 96.6 indicates that the package of benefits, excluding the value of employee contributions, is slightly less generous than the average program value; the total value is increased to 98.5 when also considering the value of employee contributions to the various programs
  - This result is the net of a lower than average active and retiree medical program value and a higher than average retirement (defined benefit/defined contribution) value

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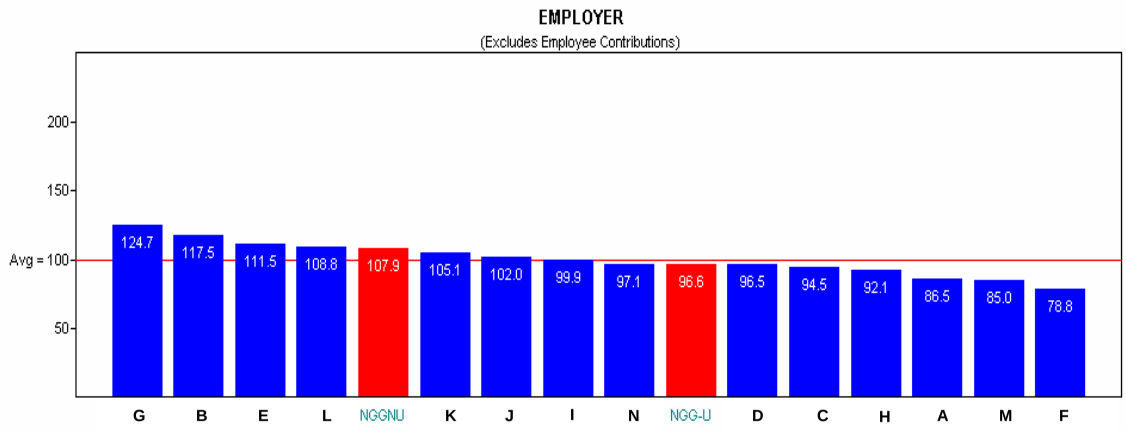
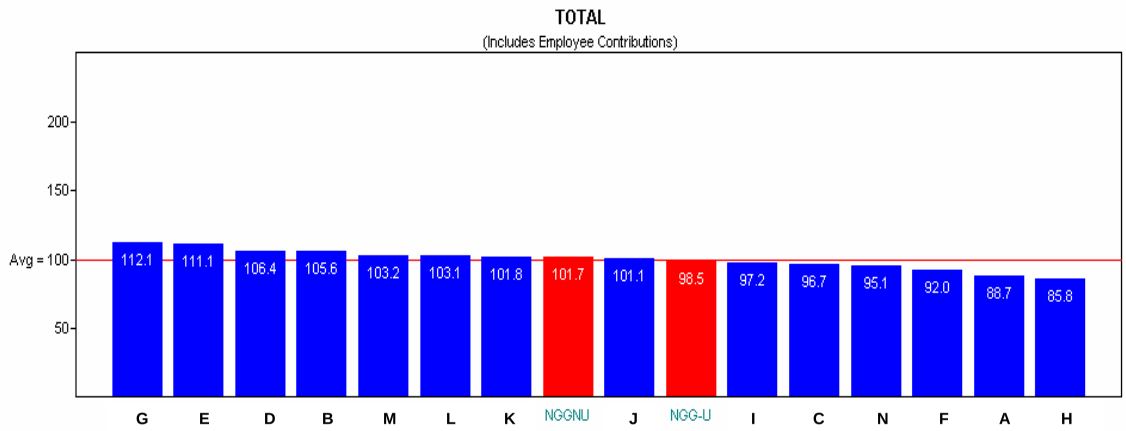
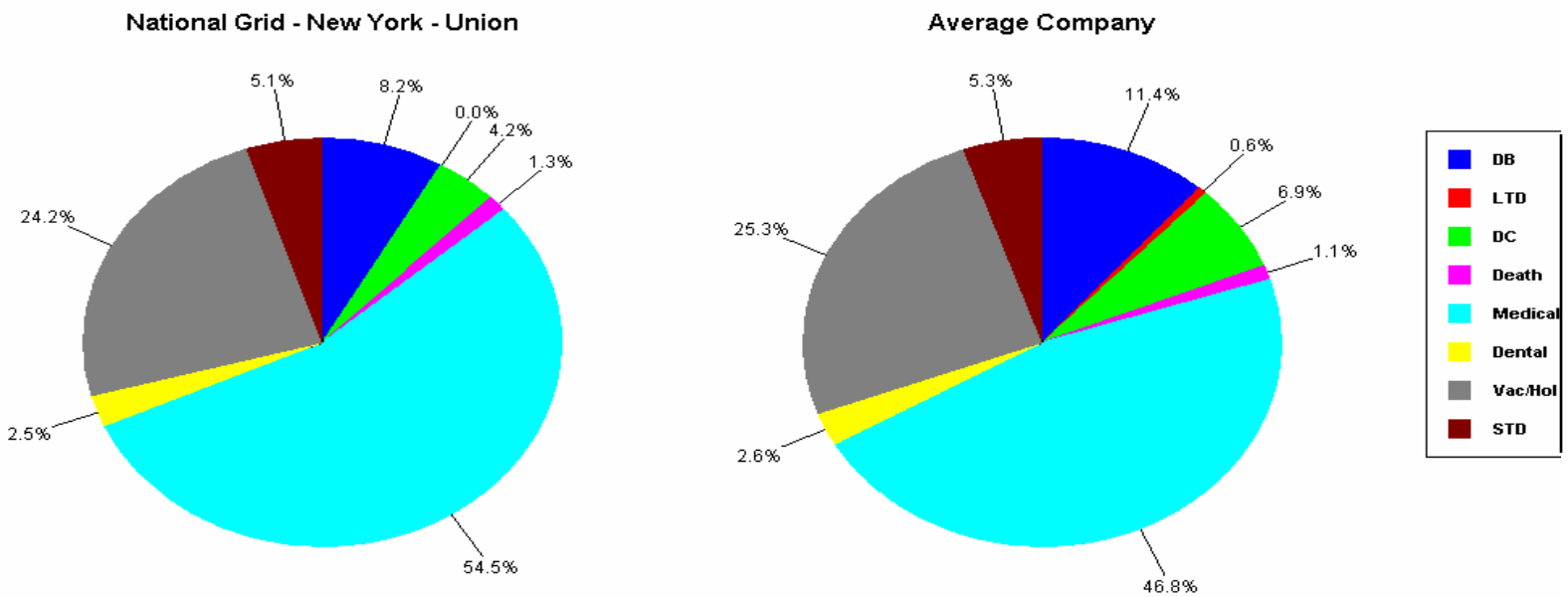
Entire Benefit Program

- The following bar chart further illustrates how National Grid's Union plans compare to their peers both in terms of gross benefit value of their entire benefit program, as well as employer-provided value (i.e., net of employee contributions)





Program Components by Employer Value - New York Union



- The pie charts above represent the percentage that each benefit component comprises of the total benefit program for the New York Union, as compared to an average company
  - The New York Union's medical program is more valuable at 54.5% of the total benefit program, as compared to the average company's medical program, which comprises only 46.8% of the total benefit program
  - Their retirement program (Defined Benefit + Defined Contribution), however, makes up a smaller percentage at 12.4% of the total benefit program, than the average company's retirement program, which comprises 18.3% of the total program

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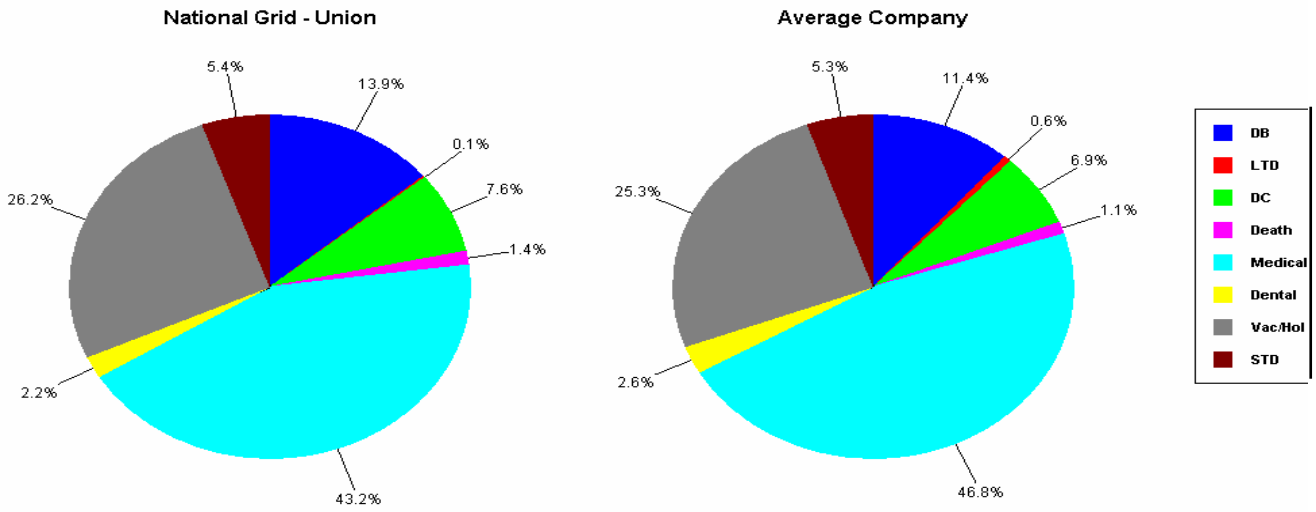
Program Components by Employer Value - New England Union



- The pie charts above represent the percentage that each component comprises of the total benefit program for the New England Union, as compared to an average company
  - The New England Union's benefit program more closely mirrors an average company's benefit program than the New York Union
  - Their medical program, at 43.2% of the total benefit program, is slightly less valuable than the average company's medical program, which comprises 46.8% of the total benefit program
  - Their retirement program (Defined Benefit + Defined Contribution), however, is slightly richer at 21.5% of the total benefit program, than the average company's retirement program, which comprises 18.3% of the total program

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Retirement Benefits

Defined Benefit and Defined Contribution Score and Rank

- The following table illustrates National Grid's New England and New York Unions' competitive positioning relative to their peer group in terms of combined defined benefit and defined contribution programs

Defined Benefit and Contribution Score and Rank	Score	Rank/16
Employer Value		
National Grid New York Union	73.1	15
National Grid New England Union	113.6	5
Total Value		
National Grid New York Union	74.9	16
National Grid New England Union	102.9	6

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Defined Benefit and Defined Contribution Comparison

- The following table compares National Grid's New York and New England Union plan designs

Key Plan Design Features - Defined Benefit and Defined Contribution Plans	National Grid New York Union	National Grid New England Union
Defined Benefit Plan		
Basic Formula	4%-8% pay credits based on service	1.9% FAE-5 less 1.33% PIA
Plan Type	Cash Balance	Final Pay
Early Retirement Subsidy	NA	Unreduced at 62, ERF varies
Lump Sum	Yes, at any age	No
Other	30-year T interest	N/A
Defined Contribution Plan		
Employer Match	50% on up to 6%	100% on first 2%, 50% on next 4%
Profit Sharing	NA	N/A
Other	6% auto enroll, 100% immediate vesting	6% auto enroll, 100% vesting at one year
SPP	No	No

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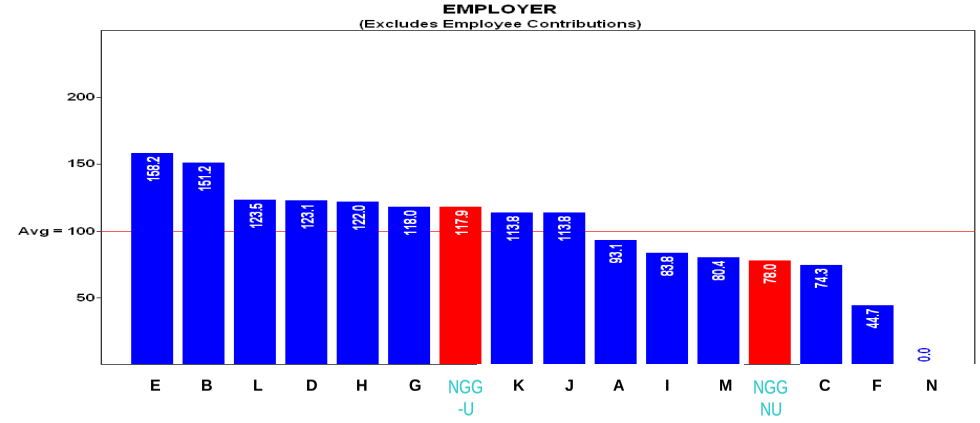
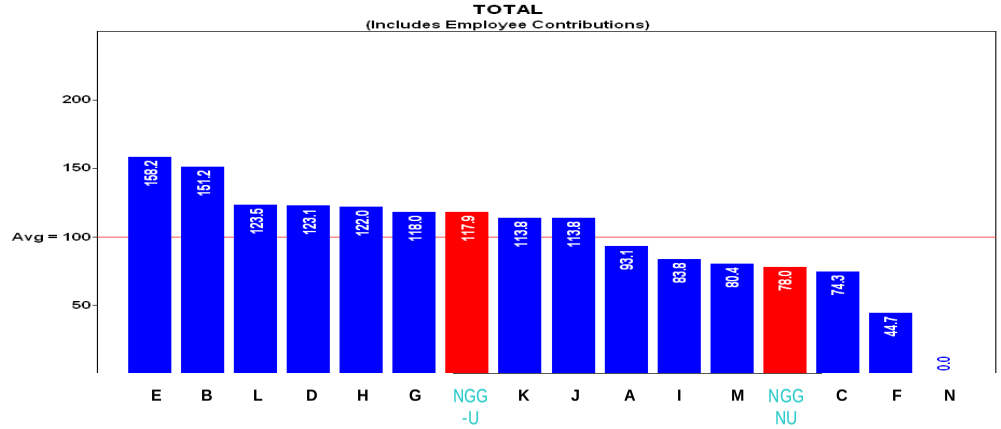
Defined Benefit

- All but one competitor union provides a defined benefit plan as part of its retirement program; none of the plans require any employee contribution
- The plans vary in design – about half offer a traditional final pay or career pay plan and half offer a hybrid account-based design (cash balance or pension equity); only one union provides a flat dollar (non-pay related) design
- National Grid's New York Union plan is ranked below the competitor group average. It is ranked along-side the other cash balance and pension equity designs, which typically do not include significant early retirement subsidies. Most of these plans do offer a full lump sum benefit upon termination.
- National Grid's New England Union plan is ranked above the competitor group average. It is ranked along-side the other traditional final pay and/or career pay type designs, which typically include generous early retirement provisions and/or an automatic COLAs provision





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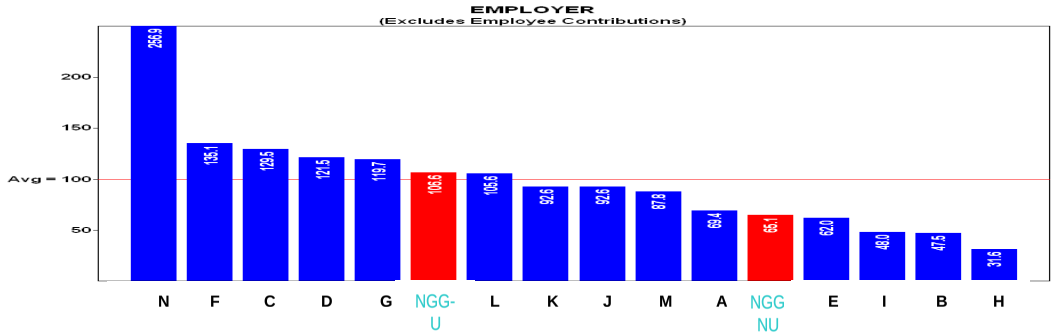
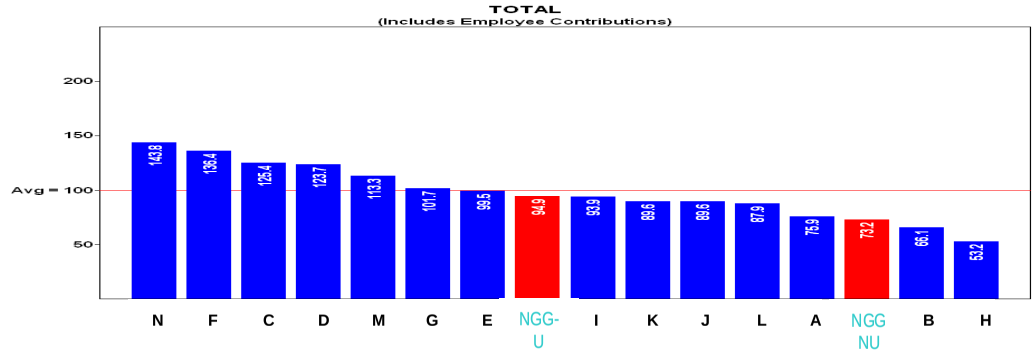
Defined Contribution

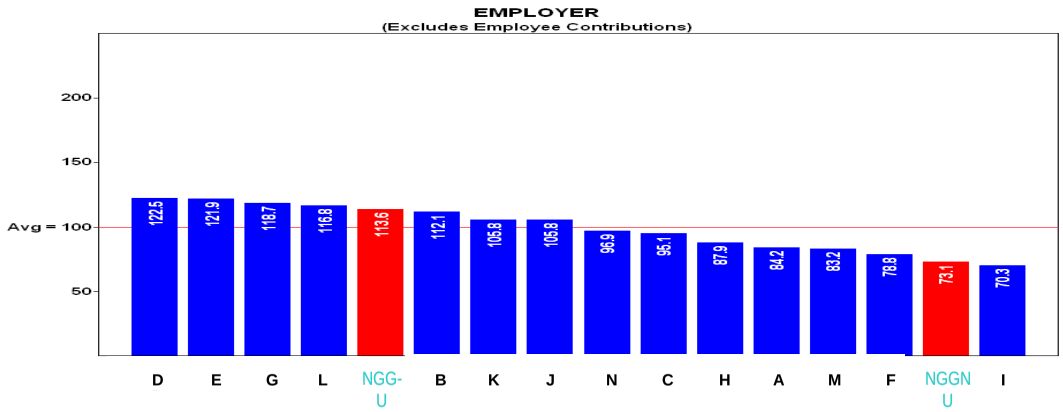
- All of the competitor retirement programs include a defined contribution component; most typically it includes only an employer savings plan matching contribution, but a few competitors also provide a company automatic or profit sharing element in the savings plan
- About half of the competitor programs also include a separate stock purchase plan with a small purchase discount
- National Grid's New York Union plan provides a lower employer matching contribution (50% on 6% or max. of 3% employer) which places it below the competitor group average
- National Grid's New England Union plan provides an employer matching contribution (100% on first 2%, 50% on next 4% or max. of 4% employer), which places it at about the competitor group average
- Like National Grid's savings plans, the majority of companies provide for immediate vesting of employer contributions; several provide for auto-enrollment

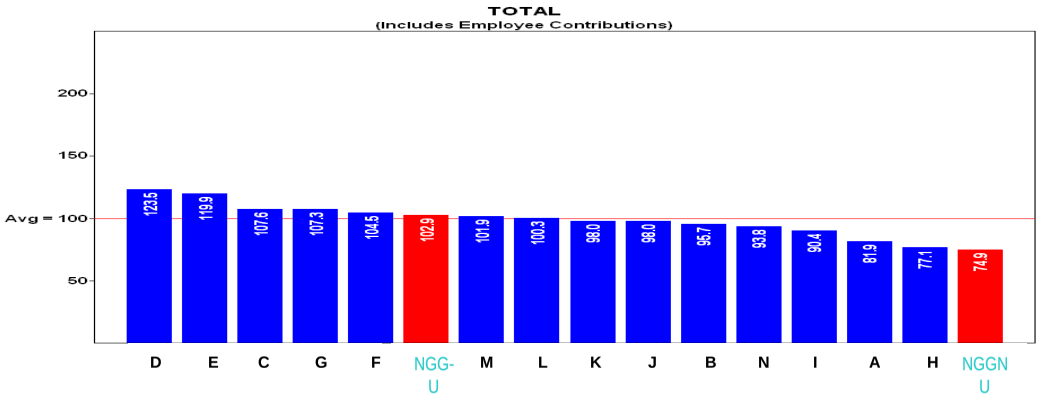




Defined Benefit + Defined Contribution

- All but one of the competitor union retirement programs include both a defined benefit and defined contribution component, similar to the design of National Grid's union programs
- Similar to National Grid's programs, the majority of the employer-provided retirement value is provided through the defined benefit plan
- National Grid's New England union program is ranked above the competitor group average, consistent with the above average ranking for its defined benefit plan (combined with its about average ranking for its defined contribution plan)
- National Grid's New York Union program is ranked significantly below the competitor group average, consistent with the below competitor group average ranking for both its defined benefit and defined contribution components





Post-retirement Medical Score and Rank

- The following table illustrates National Grid's New England and New York Unions' competitive positioning relative to their peer group in terms of post-retirement medical

Post-retirement Medical Score and Rank	Score	Rank/16
Employer Value		
National Grid New York Union	268.6	1
National Grid New England Union	37.8	14
Total Value		
National Grid New York Union	176.6	1
National Grid New England Union	60.9	13

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Post-retirement Medical Comparison

- The following table compares National Grid's New York and New England Union plan designs

Key Plan Design Features - Post-retirement Medical	National Grid New York Union	National Grid New England Union
Pre-65		
Type of Plan	POS	POS
Plan Design	Same as active	Same as active
Participation Requirements	Age 55 & 10 YOS after age 45	Age 61 & 10 YOS or Age 60 and & Age+Service = 85
Defined Dollar Benefit	None	None
Post-65		
Type of Plan	POS	Medicare Supplement
Participation Requirements	10 years of service after age 45	Age+service = 85 or 10 YOS
Plan Design	Same as active	
Deductible		Person: $100; Family Max: none
Out-of-pocket maximum		Person: none; Family Max: none
Prescription Drugs (retail)		
Generic		100%
Brand		80%
Coordination with Medicare	Benefit reduced by Medicare benefit	
Medicare Part 'A'	N/A	100% of Part 'A' deductible, 100% of Part 'A' co-pay before deductible
Medicare Part 'B'	N/A	100% of Part 'B' deductible, 100% of Part 'B' coinsurance before deductible
Medicare Part 'B' Premium	None	None
Defined dollar Benefit	None	Retiree: $54 x service; Retiree + Spouse: $108 x service

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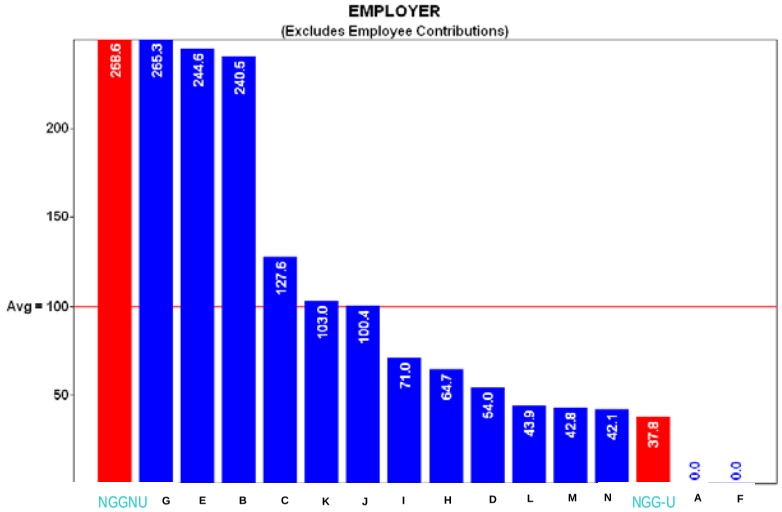
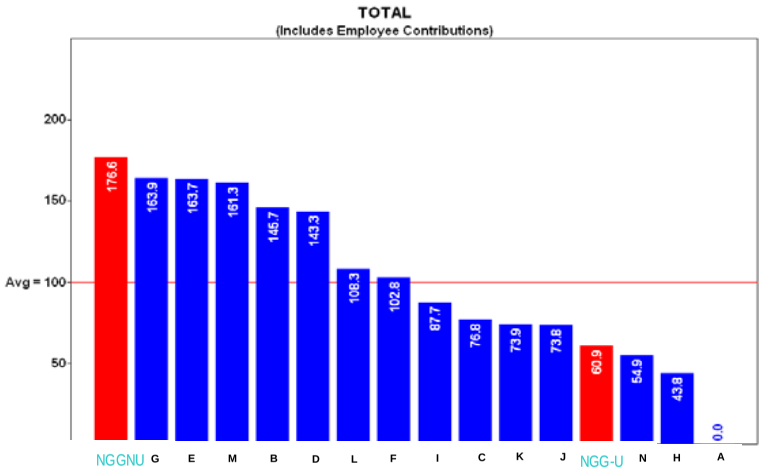
Post-retirement Medical

- The National Grid New York Union post-retirement medical plan is ranked at the very top of the peer group, with a plan value significantly above the peer group average. This is the result of:
  - Relatively low retiree contributions,
  - Uncapped employer contributions,
  - Comprehensive POS plan design,
  - Eligibility for lifetime coverage at age 55 and 10 years of service
- The National Grid New England Union post-retirement medical plan is ranked significantly below the peer group average as a result of:
  - Caps on the employer contribution
  - Pre-Medicare eligibility limited to retirees age 60
  - Medicare supplement design for post-65 coverage





Post-retirement Death Score and Rank

- The following table illustrates National Grid's New England and New York Unions' competitive positioning relative to their peer group in terms of post-retirement death

Post-retirement Death Score and Rank	Score	Rank/16
Employer Value		
National Grid New York Union	0.0	tied for last w/ 5 other companies
National Grid New England Union	43.3	9
Total Value		
National Grid New York Union	0.0	tied for last w/ 4 other companies
National Grid New England Union	38.7	11

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Post-retirement Death Comparison

- The following table compares National Grid's New York and New England Union plan designs

Post-retirement Death Benefit	National Grid New York Union	National Grid New England Union
Type of coverage	No post-retirement coverage	Basic Life
Participation Requirements	N/A	Age 61 & 10 YOS or Age 60 & age+service = 65
Monthly Contributions	N/A	None
Early Retirement Coverage	N/A	Same as Normal Retirement
Normal Retirement Coverage	N/A	Reduced immediately to $12,500 for life

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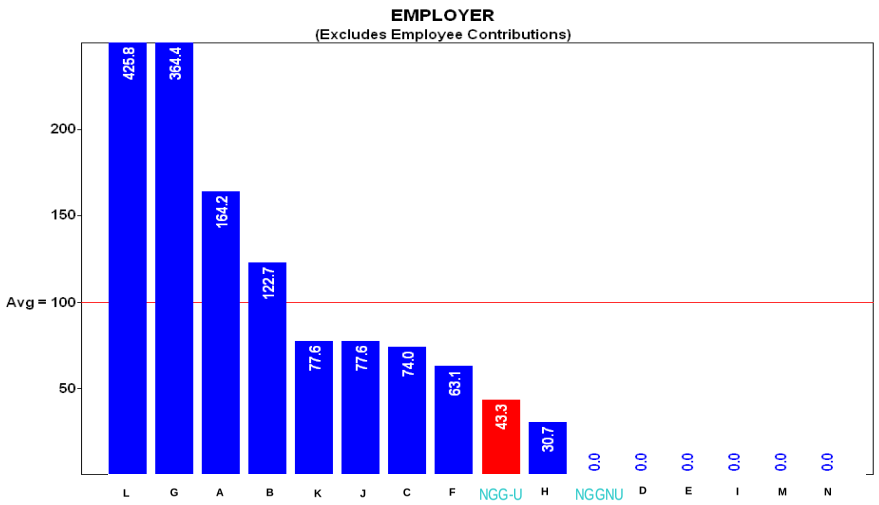
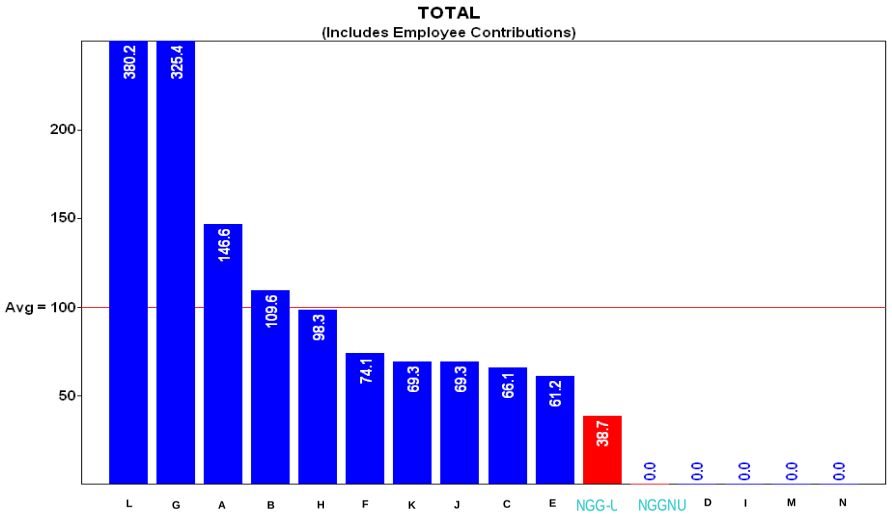
Post-retirement Death

- National Grid's union post-retirement death plans are ranked significantly below the competitor group average
  - The New York union does not have a post-retirement death benefit and the New England union has a lower than average benefit level
- Four peer companies (D, I, M, and N) along with National Grid's New York Union, do not offer any post-retirement death benefit
- L and G, which are ranked first and second respectively, offer a death benefit that only gradually reduces after retirement, until the benefit reaches a maximum of 25% of the pre-retirement death benefit
- National Grid's New England Union plan reduces the benefit immediately upon retirement to $12,500 for life





Retirement Event Score and Rank

- The following table illustrates National Grid's New England and New York Unions' competitive positioning relative to their peer group in terms of total retirement events

Retirement Event Score and Rank	Score	Rank/16
Employer Value		
National Grid New York Union	123.2	4
National Grid New England Union	93.3	10
Total Value		
National Grid New York Union	99.5	8
National Grid New England Union	92.1	10

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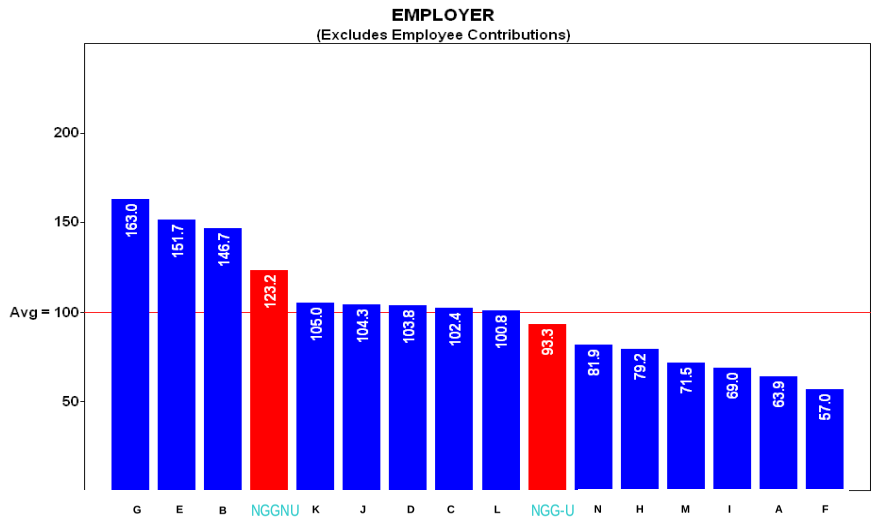
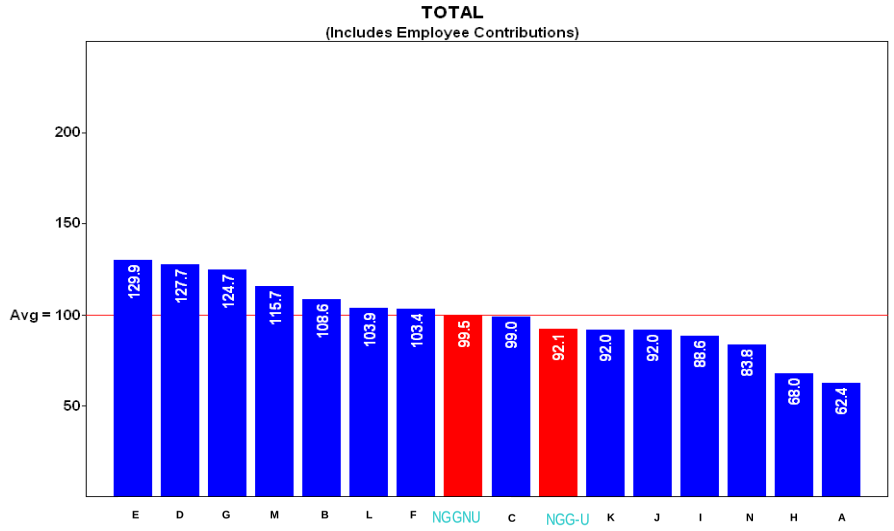
Retirement Event

- The Retirement Event comparison provides an assessment of all of the benefits available upon retirement (defined benefit/defined contribution benefits and post-retirement medical/death benefits)
- Based on the employer-provided value, the National Grid New York Union program is significantly above the competitor group average, primarily due to the rich post-retirement medical benefits available to retirees
- Based on the employer-provided value, the National Grid New England Union program is just slightly below average, due to a higher than average retirement (defined benefit/defined contribution) value offset by lower than average post-retirement medical and death plan values





Active Benefits

Active Medical Plan Delivery Models

- All companies, except A, D, and F offer their employees a choice of plan type
- Most companies that offer plans with an in-network and out-of-network feature offer a PPO rather than a POS plan
  - Eight companies have a PPO plan as their highest enrolled plan
    - One competitor company has a POS plan as their highest enrolled plan, along with both National Grid Union plans
    - Five competitor companies have an HMO plan as the highest enrolled plan
- J and K are the only companies to offer their employees a consumer driven health plan
- For purposes of the BENVAL, we evaluated only the option with highest enrollment

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Active Medical Benefit Score and Rank

- The following table illustrates National Grid's New England and New York Unions' competitive positioning relative to their peer group in terms of active medical programs
- National Grid's New York Union is ranked 6th in terms of total value, and their New England Union is ranked 8th in terms of total value
  - The New York Union ranking moves up slightly to 5th in terms of Employer Value because their employee and employee+1 contributions are below the average (although their family contribution is above the average) for the competitor group, and the New England Union ranking moves down slightly to 9th because their contributions are above the average for the competitor group

Active Medical Score and Rank	Score	Rank/16
Employer Value		
National Grid New York Union	104.0	5
National Grid New England Union	96.9	9
Total Value		
National Grid New York Union	104.2	6
National Grid New England Union	102.1	8

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Active Medical Benefits Comparison

- The following table compares National Grid's New York and New England Union plan designs relative to their peer group plan designs

Key Plan Design Features - Medical			Comparitor Group		
	National Grid New York Union	National Grid New England Union	Range	Average	Mode
In-network					
Deductible	Per Employee: $0, Family Max: $0	Per Employee: $0, Family Max: $0	Per Employee: $0-$300, Family Max: $0-$600	Per Employee: $71.43, Family Max: $142.86	Per Employee: $0, Family Max: $0
Coinsurance	100%	100%	80% -- 100%	98%	100%
Out-of-pocket maximum	Per Employee: $0, Family Max: $0	Per Employee: $0, Family Max: $0	Per Employee: $0-$1500, Family Max: $0-$3000	Person: $930, Family Max: $2250 (among plans that have an OOP max)	Per Employee: $0, Family Max: $0
Inpatient hospital	100%	100%	80% -- 100%	N/A	100%
Emergency room	100%, $35 co-pay/visit (waived if admitted)	100%	90% -- 100%	99%, $35 co-pay	100%, $50 co-pay/visit (waived if admitted)
Office visits	Primary: 100%, $10 co-pay; Specialist: 100%, $15 co-pay	100%, $10 co-pay	100%, $20 co-pay -- 100% $10 co-pay/visit	100%, $15 co-pay	100%, $20 co-pay
Prescription drugs (Retail)					
Generic	80%, $5 min, $15 max	100%, $10 co-pay	80%, $5 min, $25 max co-pay -- 100%, $5 co-pay	95%, $7.11 co-pay	100%, $5 co-pay
Brand	80%, $5 min, $15 max	Form: 100%, $10 co-pay; Non-form: 100%, $30 co-pay	Form: 75%, $15 min, $25 max co-pay; Non Form: 55%, $35 min, $60 max $ co-pay -- 100%, $10 co-pay	Form: 88%, $16 co-pay; Non-Form: 79%, $27 co-pay	Form: 100%, $20 co-pay; Non-Form: 100%, $35 co-pay
Outpatient mental health	100% first 10 visits/year, 90% next 10 visits/year, then 80%	100%, $5 co-pay/visit, 24 visits/year	50%, 20 visits/year -- 100%, $20 co-pay/visit (no limit)	85%, $12 co-pay/visit, 36 visits/year	50%, 20 visits/year
Out-of-network					
Deductible	Person: $250, Family Max: $500	Person: $200, Family Max: $400	No OON coverage -- Person: $150, Family Max: $300	Person: $392, Family Max: $925	No OON coverage (among all plans)
Coinsurance	80%	70%	No OON coverage -- 80%	77% (among plans with an OON option)	80%
Out-of-pocket maximum	Person: $1,250, Family Max: $2,500 (includes deductible)	Person: $1,300, Family Max: $1,900 (includes deductible)	No OON coverage -- Person: $1250, Family Max: $2500 (includes deductible)	Person: $2300, Family Max: $4900	No OON coverage
Monthly Employee Contributions					
Employee only	$78.17	$99.91	$25 -- $145.13	$78.86	N/A
Family	$222.77	$284.74	$25 -- $406.36	$204.20	N/A

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Active Medical Benefits

- While both National Grid Unions fall in line with the competitor group for provisions such as deductibles (none), coinsurance (100%), OOP (none), and inpatient hospital (100%), there are differences when it comes to the other benefits
- The New York Union is ranked slightly higher than other competitor companies because their office visit copay of $10 ($15 specialist) is lower than the average of $15, and mode of $20 for the competitor group
  - Additionally, their prescription drug benefit is 80% with a minimum of $5 and maximum of $15 regardless of drug tier, which is about average as compared to the competitor group for generic drugs, but is richer than the competitor mode of a $20 copay for brand formulary drugs, and a $35 copay for brand non-formulary drugs
  - The outpatient mental health benefit is also much richer than the competitor group's outpatient mental health benefit- 100% for the first 10 visits, 90% for the next 10 visits, then 80% for the following visits with no number of visit limitations, as compared to the competitors' average benefit of 85% coverage with a $12 copay for a maximum of 36 visits per year, and a competitor group mode of 50% coverage with 20 visits per year
    - Although the New York Union's lack of visit limits for mental health benefits is generous, we expect it to be in line with the average as other union plans move to comply with the recently passed Mental Health Parity law effective in 2010
  - Of the competitor companies that offer an out-of-network benefit, the New York Union plan is comparatively richer in terms of deductibles and out-of-pocket maximums

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Active Medical Benefits

- The New England Union is ranked in the middle of the pack relative to the competitor group (although slightly lower than the New York Union)
  - The New England Union prescription drug benefit of a $10 copay for generics is slightly higher than the competitor group's mode of a $5 copay for generics, but is more generous in terms of brand drugs
    - Formulary drugs have a copay of $10 and non-formulary drugs have a copay of $30, as compared to the competitor group's mode of a $20 copay for formulary drugs, and a $35 copay for non-formulary drugs
  - The New England Union outpatient mental health benefit is also much richer than the competitor groups' outpatient mental health benefit- $5 copay per visit, compared to the competitor group's average benefit of 85% coverage with a $12 copay per visit, and a competitor group mode of 50% coverage per visit
    - Their visit limit of 24 visits per year is less than the competitor group average of 36 visits per year, but slightly more than the competitor group mode of 20 visits per year
  - Of the competitor companies that offer an out-of-network benefit, the New England Union plan is comparatively richer in terms of deductibles and out-of-pocket maximums, but slightly lower in terms of coinsurance (70% versus an average/mode of 80% for competitor companies)
  - The office visit copay of $10 is the one provision where the New England Union is not only richer than the competitor group's average and mode, but also richer than the New York Union benefit (see previous page)

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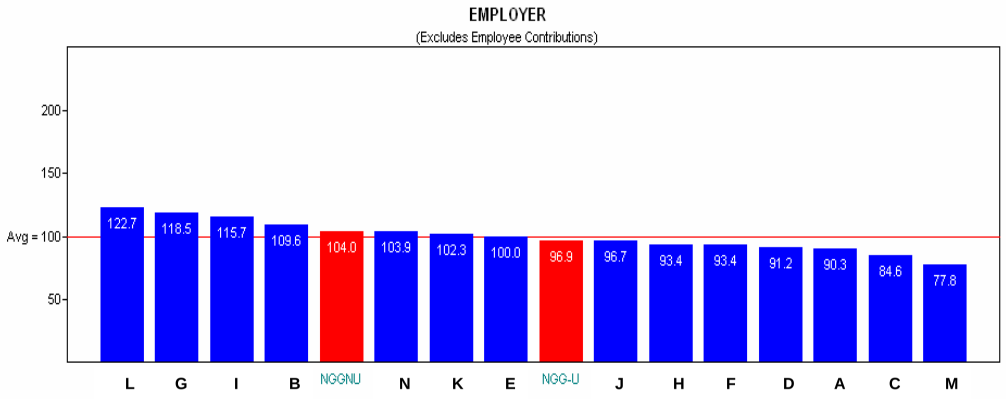
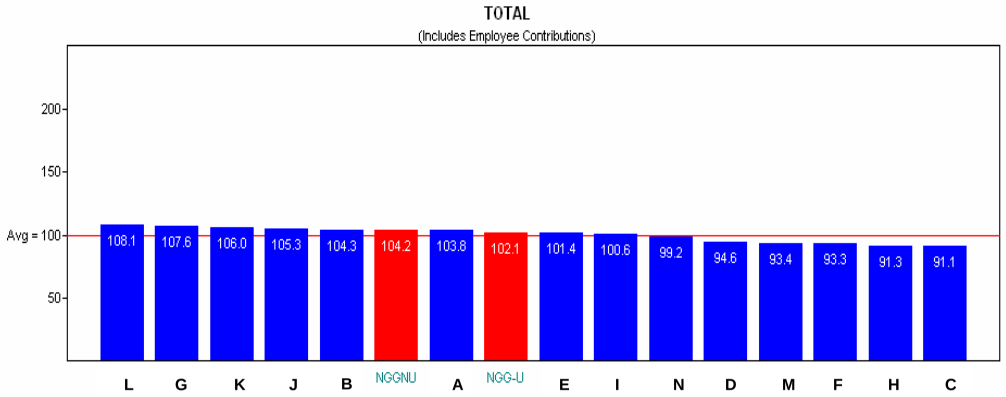
Active Medical Benefits

- The following bar chart further illustrates how National Grid's New York and New England Union plans compare to their peers both in terms of gross benefit value of medical plans, as well as employer-provided value (i.e., net of employee contributions)





Dental Benefit Score and Rank

- The following table illustrates National Grid's New York and New England Union's competitive positioning relative to their peer group in terms of active dental programs
- In terms of both Employer Value and Total Value, the New York Union is slightly above average, while the New England Union is below average

Dental Score and Rank	Score	Rank/16
Employer Value		
National Grid New York Union	102.4	6
National Grid New England Union	79.0	13
Total Value		
National Grid New York Union	103.7	6
National Grid New England Union	85.2	13

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Dental Benefits Comparison

- The following table compares National Grid's New York and New England Union plan designs relative to their peer group plan designs

Dental Benefit	National Grid New York Union	National Grid New England Union	Comparitor Group		
			Range	Average	Mode
Annual Deductible*	Person: $50, Family Max: None	Person: $50, Family Max: $150	Person: $0-$50; Family Max: None-$150	Person: $39.29; Family Max: $101.79	Person: $50; Family Max: $150
Annual Maximum	Preventive & Basic: $1500/person, Major: $2000/person (excludes orthodontia)	$1000/person (excludes orthodontia)	$1000/person --$2500/person (excludes orthodontia)	$1657 (excludes orthodontia)	$1500 (excludes orthodontia)
Cleaning	100%, 2 cleanings/year	100%, 2 cleanings/year	75% -- 100% (2 cleanings/year)	98%, 2 cleanings/year	100%, 2 cleanings/year
Non-Gold Filling	80%	80%	60% - 80%,increasing by 10%/year to 100%	78%	80%
Crowns	60%	50%, every 5 years	50% every 8 years -- 70%	58%, every 3.6 years	50%, every 5 years
Orthodontia Coverage	100%	50%	Not covered -- 100%	63% (among plans that include ortho. coverage)	50%
Orthodontia Maximum	$1,800 per lifetime	$1,500 per lifetime	$0 -- $3000	$1,967	$2,000
Orthodontia Eligibility	Adult orthodontia	Children to age 19	Not covered -- adult orthodontia	N/A	Children to age 19
Monthly Employee Contributions					
Employee	$7.35	$7.61	$0 -- $17.33	$6.73	N/A
Family	$20.94	$21.70	$0 -- $49.89	$18.19	N/A
Out of Network					
Deductible	N/A	N/A	Person: $175, Family Max: none – Person: $25, Family Max: $50	Person: $80, Family Max: $230	No OON coverage
Annual Maximum	N/A	N/A	$1000 -- $2000 (excludes orthodontia)	$1,600	$1,500

* For purposes of calculating averages, we assumed 3X for family maximum if there is no limit

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Dental Benefits

- The competitive positioning for New York Union's dental plan as compared to the competitor group is largely driven by their average to better-than-average, plan provisions
  - The New York Union plan offers a separate annual maximum of $2,000 for major services, and $1,500 for preventive and basic services, which no other company offers; all other union benefit programs have a single calendar year maximum for all services (excluding orthodontia)
  - Additionally, the New York Union plan covers major services at 60%, while the majority of competitor companies cover these services at 50%
  - The New York Union dental plan falls in line with the competitor group's average and mean for provisions such as the $50 employee deductible, 100% preventive coverage, and 80% basic services coverage
  - The plan covers orthodontia at 100%, and only three other competitor companies (J, K, and I) also cover orthodontia at 100%; the majority of companies that cover orthodontia, cover the benefit at 50%
    - Although the 100% orthodontia benefit appears more generous, the lifetime orthodontia maximum drives value since almost all members receiving orthodontia services will reach the maximum; the New York Union's orthodontia maximum is $1,800, as compared to the competitor group's average/mode of $2,000

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Dental Benefits

- — Another important driver of orthodontia benefits is eligibility; the New York Union covers adult orthodontia, which is a much richer benefit than only covering children up to age 19, which is what the majority of the competitor companies offer if they cover orthodontia
- The New York Union dental plan is slightly less rich than their competitor group in terms of their higher than average employee contributions

- The New England Union dental plan is valued much lower than the average plan because while their preventive, basic, and orthodontia coverage levels fall within the average and mode of the competitor group, their annual maximum is $1,000 as compared to the average of $1,657 and mode of $1,500 for the competitor group, and their contributions are more than 10% higher than the competitor group average
  - Additionally, the New England Union orthodontia maximum of $1,500 is lower than the competitor group average/mode of $2,000

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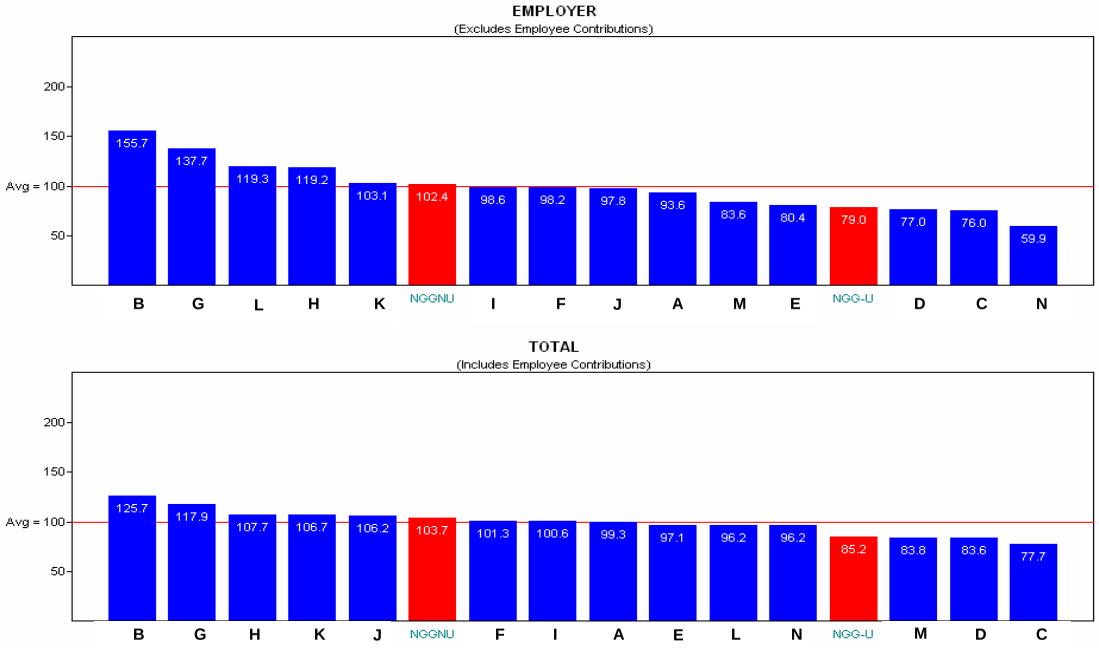
Dental Benefits

- The following bar chart further illustrates how National Grid's New York and New England Union plans compare to their peers both in terms of gross benefit value of dental plans, as well as employer-provided value (i.e., net of employee contributions)



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Life Insurance/AD&D Benefit Score and Rank

- The following table illustrates National Grid's New York and New England Unions' competitive positioning relative to their peer group in terms of life insurance and AD&D programs
- Both National Grid union life Insurance/AD&D plans are competitive as compared to their peers, and both score well above the average plan

Life Insurance/AD&D - Active Score and Rank	Score	Rank/16
Employer Value		
National Grid New York Union	164.4	3
National Grid New England Union	140.7	6
Total Value		
National Grid New York Union	134.9	4
National Grid New England Union	119.3	6

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Life Insurance/AD&D Comparison

- The following table compares National Grid's New York and New England Union plan designs relative to their peer group plan designs

Life Insurance/AD&D Benefit	National Grid New York Union	National Grid New England Union	Comparitor Group		
			Range	Average	Mode
Basic	2.5 x pay	2 x pay	$5,000 -- 2 x pay; if age+service=85: 4 x pay	1 x pay	1 x pay
Maximum	$625,000	$200,000	$5,000 -- No Max	$441,000	$1,000,000
Supplemental					
Employee option	1 to 5 x pay in multiples of 1 x pay	1 to 5 x pay in multiples of 1x pay	None -- $10,000 to $2,000,000 in multiples of $10,000 (Max: 5 x pay)	1 to 5 x pay in multiples of 1 x pay	1 to 5 x pay in multiples of 1 x pay
Minimum					
Maxmimum	$1,000,000	$1,000,000	None -- Combined with Basic Life: $1,600,000	Combined with Basic Life: $1,500,000	Combined with Basic Life: $1,500,000
Dependent					
Spouse			None -- Employee Option: $10,000 to $100,000 in multiples of $10,000	Employee option, $25,000 or $50,000 or $100,000	Employee option, $25,000 or $50,000 or $100,000
Option I:	$25,000	$25,000			
Option II:	$50,000	$50,000			
Option III:					
Option IV:					
Children:			None -- Employee option, $10,000 or $15,000 or $30,000	Employee option, $5,000 or $10,000	Employee option, $5,000 or $10,000
Option I:	$2,500	$2,500			
Option II:	$4,000	$4,000			
Option III:	$10,000	$10,000			
Option VII:					
Accidental Death-Active					
Participation Requirements	None	None	6 months of service -- None	None	None
Monthly Employee Contributions	None	None	None	None	None
Death Benefit Amount	1 x pay + $5,000; Max: $25,000	1 x pay + $5,000; Max: $25,000	No plan -- 3 x pay, Max: $600,000	1 x pay, Max: $378,000	1 x pay

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Life Insurance/AD&D Benefits

- The key factor driving National Grid's New York and New England Union life insurance and AD&D programs to be richer than some of their competitors (ranked 3rd and 6th respectively) are their high basic life amounts: 2.5x pay for the New York Union, and 2x pay for the New England Union, as compared to the average/mode of 1x pay for the competitor group
  - Only G, J, K, and L offer basic life at 2x pay, and no other company offers this benefit at 2.5x pay
- The New York Union's benefit maximum is $625,000, which is greater than the competitor group average of $441,000, though lower than the competitor group mode of $1,000,000
  - The New York Union benefit maximum is richer than New England Union's benefit maximum of $200,000, which is why the New York Union is ranked higher than the New England Union
- National Grid's Union plans compare well with their competitors in terms of supplemental life benefits, and offer a separate benefit maximum of $1,000,000 for these benefits, whereas the majority of their competitors offer a combined basic and supplemental benefit maximum of $1,500,000

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Life Insurance/AD&D Benefits

- Both National Grid Unions offer competitive dependent life benefits, although the majority of competitor companies offer an additional spouse benefit option of $100,000, whereas the National Grid Unions only offer a maximum $50,000 benefit option
  - Both National Grid Unions offer three child life options: $2,500, $4,000, and $10,000, whereas the majority of the competitor companies only offer a $5,000 and $10,000 option
- The AD&D benefit is where both National Grid Unions fall short of the competitor companies -- they only offer a death benefit amount of 1x pay plus $5,000 to a maximum of $25,000, versus a competitor group average of 1x pay to a maximum of $378,000

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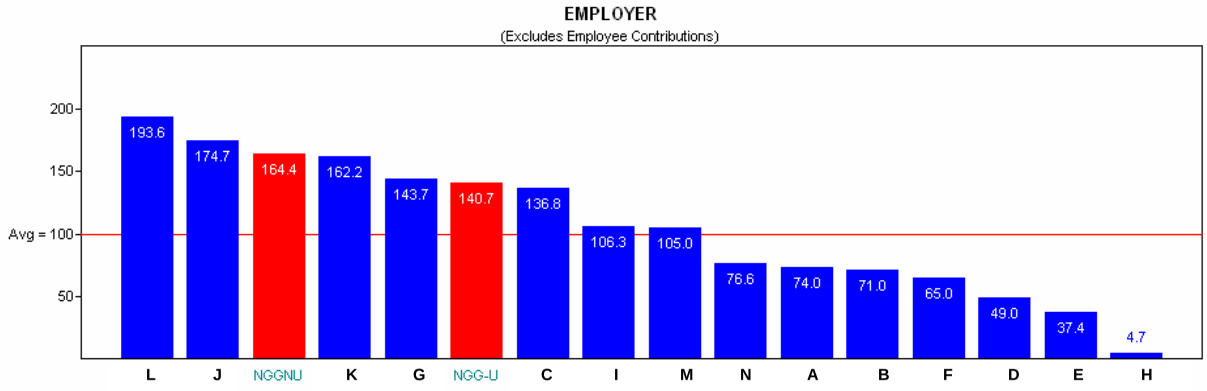
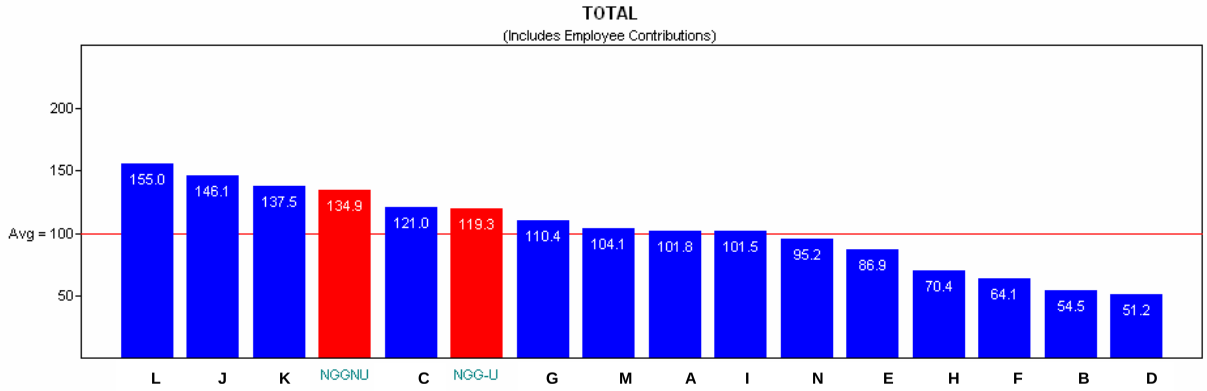
Life Insurance and AD&D Benefit

- The following bar chart further illustrates how National Grid's New York and New England Union plans compare to their peers both in terms of gross benefit value of life insurance and AD&D, as well as employer-provided value (i.e., net of employee contributions)





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Short Term Disability Score and Rank

- The following table illustrates National Grid's New York and New England Unions' competitive positioning relative to their peer group in terms of STD programs
  - In terms of both Employer Value and Total Value, the New York Union design is slightly above average, and the New England Union plan is slightly below average

Short Term Disability Score and Rank	Score	Rank/16
Employer Value		
National Grid New York Union	102.6	9
National Grid New England Union	98.6	14
Total Value		
National Grid New York Union	102.6	9
National Grid New England Union	98.6	14

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Short Term Disability Benefit

- The New York Union's sick pay benefit is less rich than those of the competitor group at earlier years of service: 1 week versus 2 weeks at 1 year of service, and 5 weeks versus 6 weeks at 5 years of service. The benefit catches up to the competitor group average at later years, though, and surpasses the average at 25 weeks and beyond
  - The salary continuance benefit is provided at 60% of pay for the balance of 26 weeks as combined with the sick pay benefit, which is less generous than most of the other competitor companies: 80% to 100% of pay for a range of weeks at years of service bands
- The New England Union's sick pay benefit is the same as the New York Union's sick pay benefit, but the salary continuance benefit is provided at 60% of pay for the balance of 13 weeks as combined with the sick pay benefit, which is less generous than most of the other competitor companies: 80% to 100% of pay for a range of weeks at years of service bands

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Short Term Disability Comparison

- The following table compares National Grid's New York and New England Union plan designs relative to their peer group plan designs

Short Term Disability	National Grid New York Union	National Grid New England Union	Comparitor Group		
			Range	Average	Mode
Sick Pay	1st Day of Disability	1st Day of Disability	If illness, 7th calendar day of disability; if accident, 1st day of disability -- 1st day of disability	N/A	1st day of disability
Salary Continuance	End of Sick Pay	End of Sick Pay	Later of 6th working day of disability or end of Sick Pay -- End of Sick Pay	N/A	End of Sick Pay
Benefit Amount					
Sick Pay					
Years of Service	Weeks at 100%	Weeks at 100%			
1	1	1	2-4	2	2
5	5	5	2-10	6	6
10	10	10	2-20	9	15
15	15	15	2-30	12	16
20	20	20	2-40	14	23
25	25	25	2-50	17	26
30	30	30	2-60	21	30
35	35	35	2-60	25	32
Salary Continuance	60% of pay; Less Primary Social Security; Less Dependent Social Security; Payable for balance of 26 weeks per year	60% of pay; Less Primary Social Security; Less Dependent Social Security; Payable for balance of 13 weeks per year	No salary continuance – 100% of pay, less primary social security, payable for 52 weeks per disability	N/A	YOS Schedule (salary continuance varies from for percentage of pay)
Years of Service	Weeks at 60%	Weeks at 60%			
1	25	12			
5	21	8			
10	16	3			
15	11	0			
20	6	0			
25	1	0			
30	0	0			
35	0	0			

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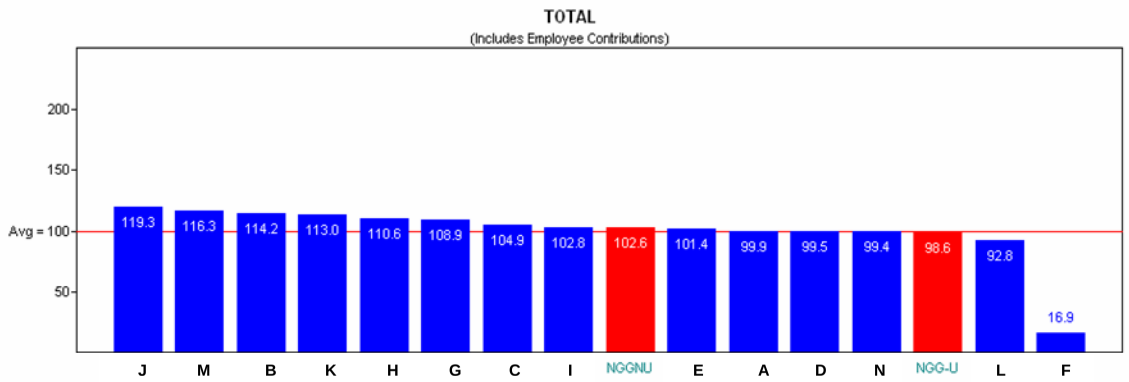
Short Term Disability

- The following bar chart further illustrates how National Grid's New York and New England Union plans compare to their peers both in terms of gross benefit value of STD plans, as well as employer-provided value (i.e., net of employee contributions)



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Long Term Disability Benefit Score and Rank

- The following table illustrates National Grid's New York and New England Unions' competitive positioning relative to their peer group in terms of LTD programs

Long Term Disability Score and Rank	Score	Rank/16
Employer Value		
National Grid New York Union	0.0	tied for last w/ 4 other companies
National Grid New England Union	20.2	11
Total Value		
National Grid New York Union	0.0	tied for last w/ 3 other companies
National Grid New England Union	186.5	2

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Long Term Disability Benefit

- The New York Union does not offer their employees an LTD plan, so they are tied for last place under the Total Value with three other competitor companies (D, F, and H) that also do not offer LTD plans
- In terms of Total Value, the New England Union LTD plan is very competitive due to the fact that benefits commence much more quickly - 3.25 months instead of the average of 6 months for the competitor group
  - Additionally, mental health/chemical dependency benefits under the LTD plan continue to age 65, whereas the average duration for these benefits for the competitor group is only 24 months
- The New England Union becomes much less competitive relative to their competitors, however, in terms of Employer Value, due to high employee contributions required for the plan
  - Only three other companies require employee contributions for their basic LTD plan: C, A, and E
  - The New England Union plan is the only plan that requires a fixed contribution regardless of benefit level (i.e., if contributions are required, employees are charged a percent of covered pay)

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Long Term Disability Comparison

- The following table compares National Grid's New York and New England Union plan designs relative to their peer group plan designs

Long Term Disability	National Grid New York Union\	National Grid New England Union	Comparitor Group		
			Range	Average	Mode
Commencement	Company does not provide an LTD plan. Disabled employees who meet eligibility requirements receive benefits from: Company paid disability retirement, Group Life Insurance, Pension Plan	Later of 13 weeks of disability or exhaustion of short-term disability benefits	No LTD Plan -- After exhaustion of STD benefits	After 6 months of disability	After 6 months of disability
Duration					
Mental Health/Chemical Dependency		To age 65	No LTD Plan -- to age 65	For 24 months	For 24 months
Amount		60% of pay, Less Primary Social Security, Less Dependent Social Security	No LTD Plan -- 60% of Pay, Less Primary Social Security	56% of pay, Less Social Security, Less Pension Benefits	60% of pay, Less Primary Social Security
Maximum From all Sources			No LTD Plan -- $30,000/month	$9771/month	$10,000/month

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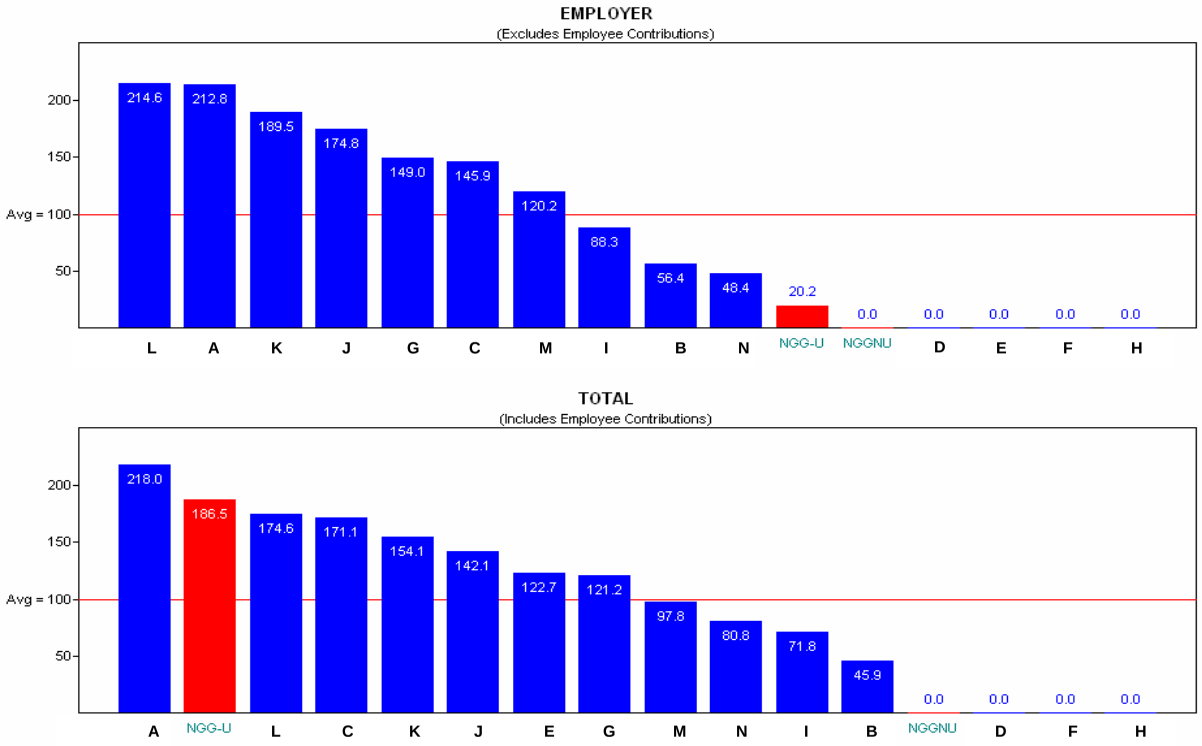
Long Term Disability Benefit

- The following bar chart further illustrates how National Grid's New York and New England Union plans compare to their peers both in terms of gross benefit value of LTD plans, as well as employer-provided value (i.e., net of employee contributions)



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Vacation and Holiday Benefit Score and Rank

- The following table illustrates National Grid's New York and New England Union plans competitive positioning relative to their peer group in terms of vacation and holiday programs

Vacation and Holiday Score and Rank	Score	Rank/16
Employer Value		
National Grid New York Union	103.1	tied for 4th w/ 2 other companies
National Grid New England Union	100.1	11
Total Value		
National Grid New York Union	103.1	tied for 4th w/ 2 other companies
National Grid New England Union	100.1	11

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Vacation and Holiday Benefit

- A majority of the competitor companies offer very similar vacation and holiday benefits, so the range of scores are close for all but a few of the companies
  - The New York Union overall design is slightly more generous than some of the other competitor companies
    - While the New York Union vacation benefit is less rich than those of the competitor group at earlier years of service (0 weeks versus an average of 2.5 (mode is 0) at less than 1 year of service, up to 10 weeks versus an average of 8.6 (mode is 10) at 1 year of service, and 10 weeks versus an average of 13.4 weeks (mode is 15) at 5 years of service), the benefit catches up to the competitor average at later years, and surpasses the competitor group mode at 30 years of service
    - The New York Union also offers 13 holidays, which is in line with what the other highly ranked competitor companies offer
  - The New England Union vacation and holiday benefit scored a little lower than the New York Union benefit, primarily because they offer 1 less holiday than the New York Union
    - While the New England Union vacation benefit at less than 1 year of service is a little more generous (up to 5 days versus 0 days) than the New York Union benefit for this service band, after 22 years of service and greater, the New England Union vacation benefit tops out at 25 days, whereas the New York Union vacation benefit increases to 30 days after 30 or more years of service

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Vacation and Holiday Benefits Comparison

- The following table compares National Grid's New York and New England Union plan designs relative to their peer group plan designs

Vacation and Holiday Practices			Comparitor Group		
	National Grid New York Union	National Grid New England Union	Range	Average	Mode
Amount of Vacation (days)					
Years of Service					
<1	0	Up to 5	0 - Up to 10	2.5	0
1	Up to 10	10	5-10	8.6	10
5	10	10	10-15	13.4	15
10	15	15	15-20	15.8	15
15	20	20	20-21	20.1	20
20	20	20	20-25	21.9	20
25	25	25	20-25	24.6	25
30	30	25	20-30	26.8	25
Holiday Policy					
Company Scheduled	11 days	11 days	7-12	10.3	11
Employee Scheduled	2 days	1 day	0-6	2.1	2

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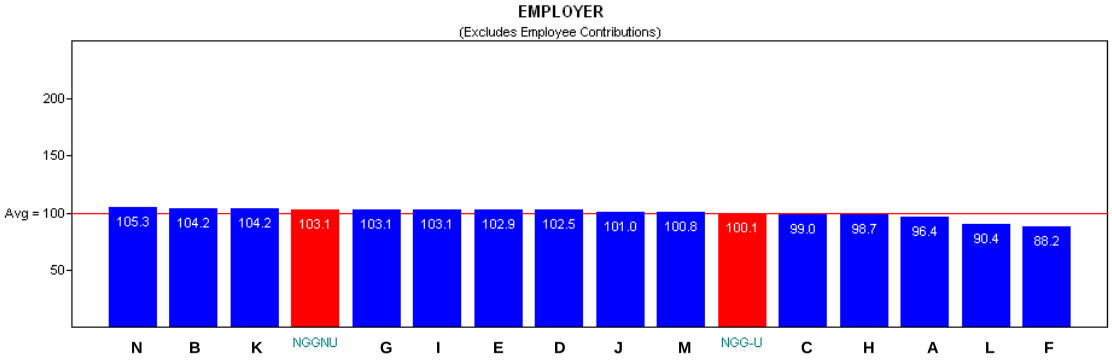
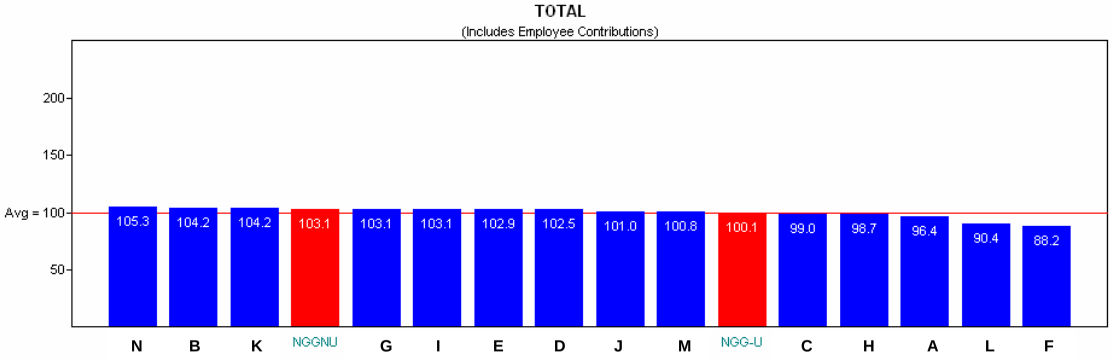
Vacation and Holiday Score and Rank

- The following bar chart further illustrates how National Grid's New York and New England Union plans compare to their peers both in terms of gross benefit value of vacation and holiday plans, as well as employer-provided value (i.e., net of employee contributions)





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Summary

Summary

Provision	National Grid New York Union Employer Value	National Grid New York Union Total Value	National Grid New England Union Employer Value	National Grid New England Union Total Value
Entire Benefit Program	**107.9**	**101.7**	**96.6**	**98.5**
Defined Benefit	78.0	78.0	117.9	117.9
Defined Contribution	65.1	73.2	106.6	94.9
Defined Benefit + Defined contribution	73.1	74.9	113.6	102.9
Post-retirement Medical	268.6	176.6	37.8	60.9
Post-retirement Death	0.0	0.0	43.3	38.7
Retirement Events	123.2	99.5	93.3	92.1
Active Medical	104.0	104.2	96.9	102.1
Dental	102.4	103.7	79.0	85.2
Life Insurance/AD&D	164.4	134.9	140.7	119.3
STD	102.6	102.6	98.6	98.6
LTD	0.0	0.0	20.2	186.5
Vacation + Holiday	103.1	103.1	100.1	100.1

- As noted throughout this document, each National Grid Union has some benefit provisions that are more generous than the competitor group, and others that are less generous than the competitor group, which ultimately contribute to the overall Entire Benefit Program score
  - In terms of Employer Value, the New York Union offers generous active and retiree medical programs, less rich retirement benefits, and competitive vacation/holiday benefits. Their Entire Benefit Program score is better than the average because medical benefits comprise the largest component of a benefit program
  - Conversely, in terms of Employer Value, the New England Union offers less than average active and retiree medical benefits, generous retirement benefits, and average vacation/holiday benefits. Again, since medical benefits comprise the largest component of a benefit program, their Entire Benefit program score is less than the average

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BENVAL® Methodology

- Relative values are not intended to represent actual plan/program costs
- Plan provisions valued are those that apply to newly hired employees
  - Benefits no longer available to new hires are not considered
- Benefit values are based on the following assumptions and methodologies
  - Standard population
    - Average age: 42 years
    - Average service: 11.5 years
    - Average base salary: $60,000
    - Average total salary: $64,500
  - Key economic assumptions
    - Discount rate: 7.5%
    - Salary increase rate: 4.5%
    - Inflation: 2.5%
    - One-year Treasury bond yield: 4.4%
    - 30-year Treasury bond yield: 5.5%
    - Health care cost trend: 10% graded to 5% over 5 years

Note: a more detailed summary of assumptions and plan-specific methodology can be found in the "Help" section in the BENVAL® software tool

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Schedule
NG-WFD-10

Schedule NG-WFD-10

BENVAL Analysis for Non-Union Benefits (Towers Perrin, 9/7/06)

TOWERS PERRIN

HR SERVICES

National Grid

BENVAL Analysis for Non-Union Benefits

August 25, 2006

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Table of Contents

- Overview of Competitive Assessment
- Entire Benefit Program
- Retirement Benefits
- Active Benefits

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Overview of Competitive Assessment

- Towers Perrin conducted a health care competitive assessment comparing non-union benefit levels for both National Grid and Keyspan relative to the 19 peer organizations; this analysis was based on 2006 benefit programs for National Grid, Keyspan and all comparator companies
- The analysis was based on individual employer plan provision applied to a standard population reflective of National Grid's and Keyspan's demographics using consistent economic and utilization assumptions, thereby measuring the "financial value" of the plan, not the actual cost of the plan
- The "financial value" of each plan represents the percentage of an average member's covered medical expenses that the plan reimburses adjusted for financial performance and efficiency of the plan
- Each company's "financial value" is then compared to the average "financial value" of all competitor companies to determine "relative value"
- The average of all companies is set to 1.00 for each benefit such that an employer score falling above or below 1.00 indicates how generous the employer's benefits are relative to the average
- Throughout this document, "Total Value" refers to the positioning of the benefit programs prior to employee contributions, whereas "Employer Value" refers to the value after employee contributions have been deducted

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Entire Benefit Program

Entire Benefit Program

Entire Benefit Program Score and Rank	Score	Rank/21
Employer Value		
National Grid	98.8	13
Keyspan	87.5	17
Total Value		
National Grid	96.2	15
Keyspan	104.8	8

- National Grid's total plans are lower than the average when compared to the peer group. One key driver is the Stock Purchase Plan offered by Keyspan. Without this plan, both National Grid and Keyspan fall in the third quartile for overall plan design, with Keyspan slightly higher before recognizing cost sharing with employees.
- Keyspan's Total Value of 104.8 indicates that the package of benefits is more generous than the average, however the Employer Value decreasing to 87.5 indicates that employees are required to contribute more heavily than the comparator group.
- Conversely, National Grid's competitive positioning improves when moving from Total Value to Employer Value, indicating that while the overall value is below the average, National Grid requires employees to contribute less than the average.

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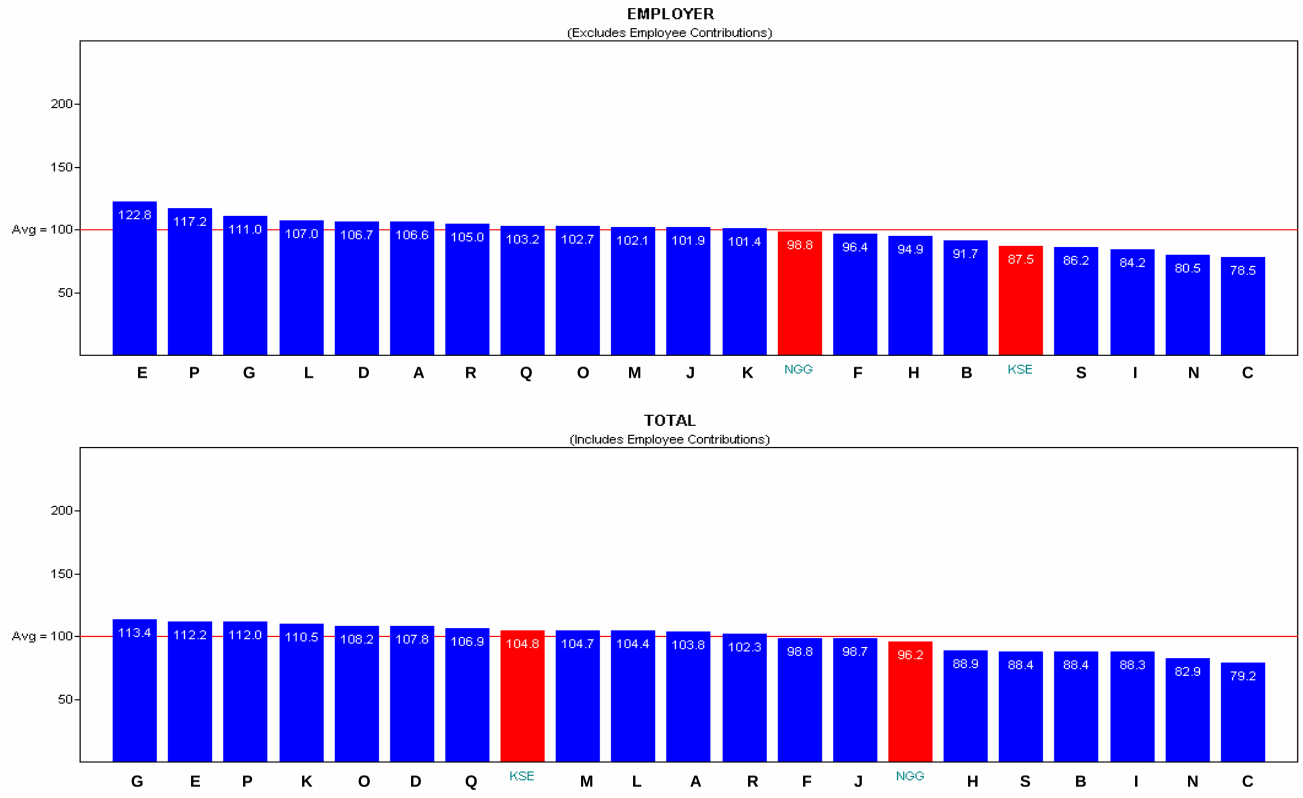
Entire Benefit Program

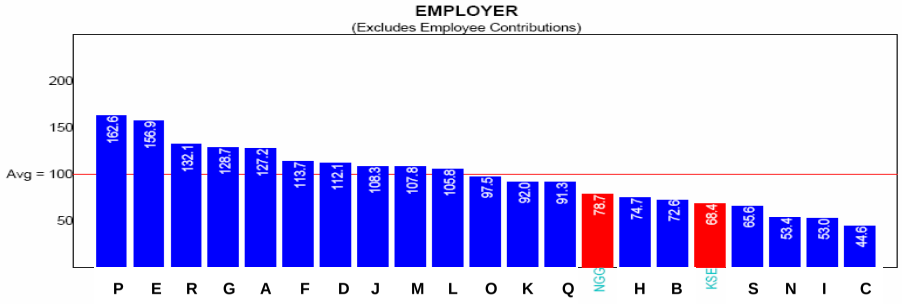
- The following bar chart further illustrates how National Grid's and Keyspan compare to their peers both in terms of gross benefit value of their entire benefit program, as well as employer-provided value (i.e., net of employee contributions)

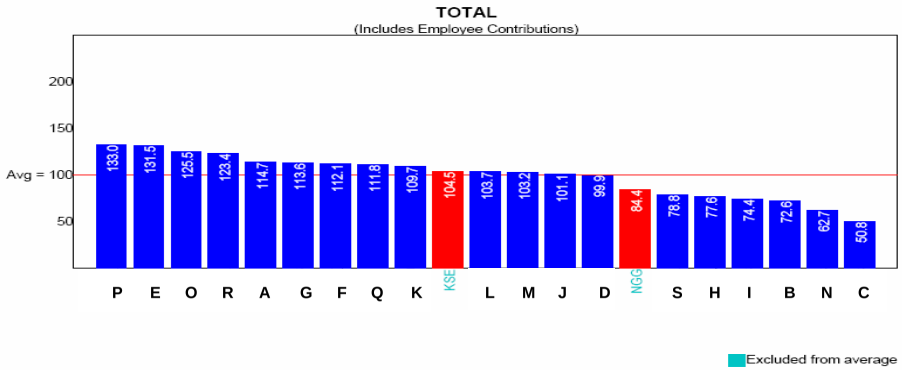


Retirement Benefits

All Retirement Plans except Stock Purchase Plan

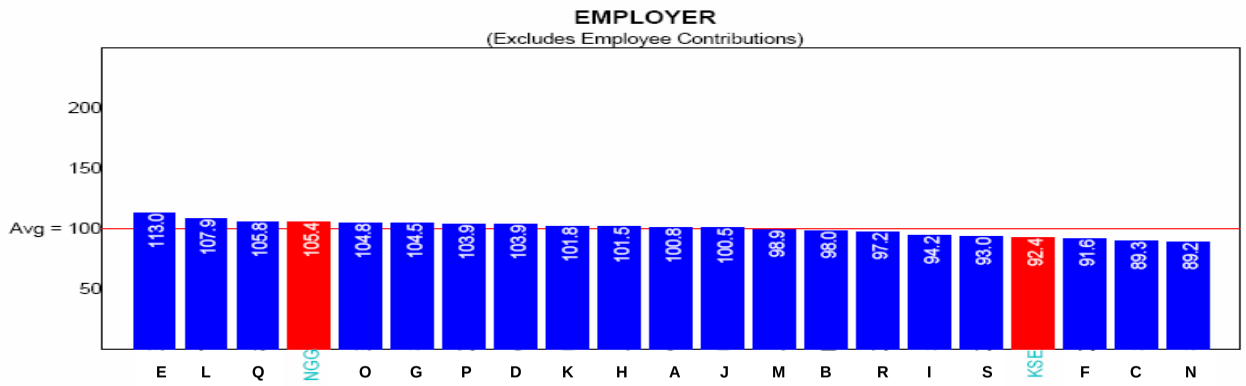
- This chart reflects total plan design values for retirement events reflecting all plans except the stock purchase plans
- Relative rankings for plan design do not change when the Stock Purchase Plan is added in
- Values have a relatively wide dispersion, with values ranging from 50.8 to 133.0
- Considering Employer-Values, Keyspan's ranking changes to the fourth quartile (from the second quartile) for retirement-events; key driver here is the cost-sharing arrangement for retiree medical

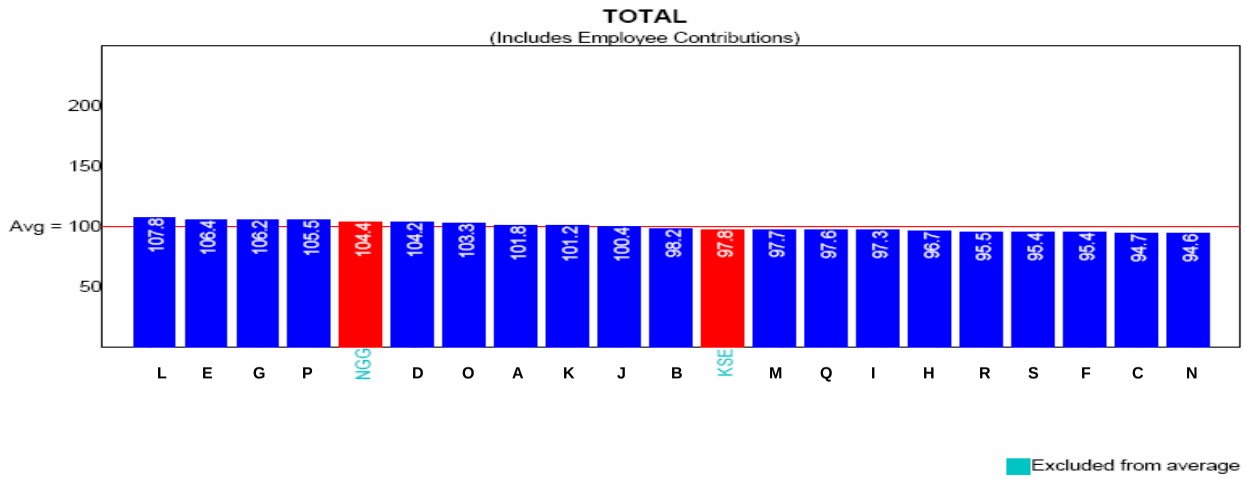




All Retirement Events except Retirement and Death

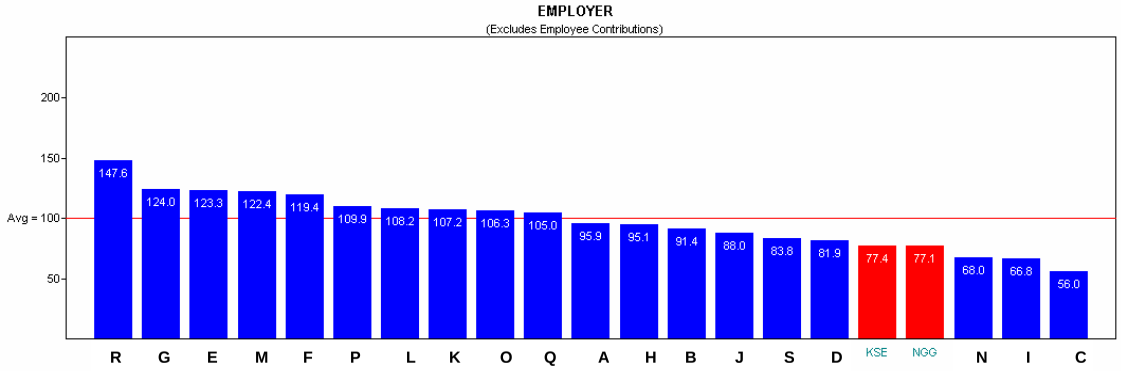
- Relative rankings for plan design do not change when the Stock Purchase Plan is added in
- The range of results is much narrower with values ranging from 94.6 to 107.8

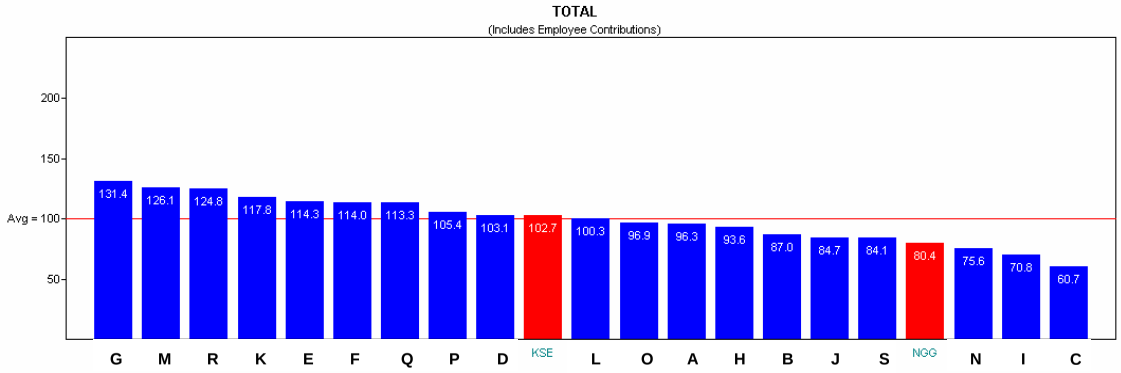




Total retirement benefits, excluding medical

- Keyspan and National Grid programs have very consistent benefit values with respect to employer-values
- Considering plan design (i.e., with employee contributions added), the Keyspan program improves to above the median, while the National Grid program remains near the bottom
- This differential is primarily related to the value of Keyspan's Stock Purchase Plan
- Without the Stock Purchase Plan, Keyspan's retirement plan design falls to a rank just below that for National Grid





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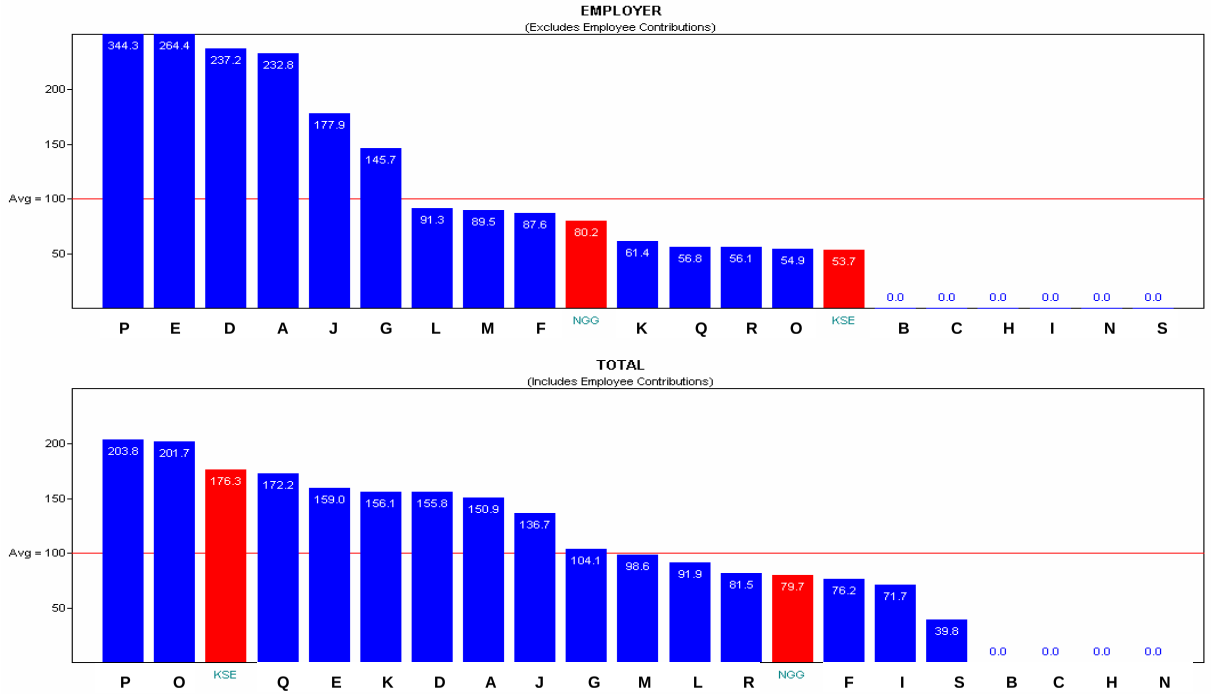
Post retirement medical benefits

- A key factor in Keyspan's ranking is the relatively low eligibility threshold for the benefit (5 years of service at age 55)
- However, employer costs for eligible employees are capped at the current level and do not appear to be as heavily subsidized (for the retiree and covered dependents) as in National Grid's program
- When employee contributions are included, Keyspan's program ranks 3rd from the top, while National Grid's is below the median, with Keyspan's program more than twice as valuable as National Grid's program



Active Benefits

Active Medical Plan Delivery Models

- All companies, except C, I, and R, offer the employees a choice of plan type
- Most companies that offer plans with in-network or out-of-network features offer a PPO rather than a POS
  - Ten companies have the PPO as their highest enrolled plan
    - Four companies have the POS as their highest enrolled plan and two companies have an HMO as the highest enrolled plan
    - One company each has the Triple Option, Comprehensive, and Basic/Major medical plan as their highest enrolled plan, respectively
  - Three companies offer both a PPO and POS (H, N, and Q)
- A is the only company to offer their employees a consumer driven health plan
- For purposes of the BenVal, we evaluated only the option with highest enrollment

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Active Medical Benefit Score and Rank

- The following table illustrates National Grid's and Keyspan's competitive positioning relative to their peer group in terms of active medical programs
  - In terms of Total Value, National Grid's overall designs are more generous than the average, whereas Keyspan's designs are below the average
  - Because National Grid's contributions are more generous than the average, whereas Keyspan's are less generous (e.g., National Grid's Employee Only contributions are approximately $64 compared to Keyspan's of $95, and the average competitor company's of $73), National Grid's overall Employer Value competitive positioning worsens

Active Medical Score and Rank	Score	Rank/21
Employer Value		
National Grid	104.1	9
Keyspan	88.6	19
Total Value		
National Grid	105.2	7
Keyspan	96.9	13

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Active Medical Benefits Comparison

- The following table compares National Grid's and Keyspan's plan design relative to their peer group plan designs

Key Plan Design Features - Medical			Comparator Group	
	National Grid	Keyspan	Range	Average
In-network				
Deductible	None	Per person: $250 Family max: $500	$0-$400 (ind) $0-$1200 (fam)	$120 (ind) $300 (fam)
Coinsurance	100%	90%	80%-100%	90%
Out-of-pocket maximum	None	Per person: $1,000 Family max: $2,000 (excludes deductible)	$0-$2250 (ind) $0-$6000 (fam)	$1230 (ind) $2760 (fam)
Inpatient hospital	100%	90%	85%, $150 copay-100%	90%,$150 copay
Emergency room	100%	90%	$0 copay-85%,$50 copay	$50
Office visits	$10	$15	$5-$25	$20
Prescription drugs (Retail)				
Generic	$10	$10	$5-$100	$10
Brand	$10/$30	$20/$35	$5- 50% formulary and 40% nonformulary	80%(min 20-max 50) formulary and 80% (min 30- max 100) nonformulary
Outpatient mental health	$5, 24 visits	50%, 30 visits per year	$10-$30	$20
Out-of-network				
Deductible	$200	Per person $400 Family Max: $800	$0-$1000 (ind) $0-$3000 (fam)	$470 (ind) $1260 (fam)
Coinsurance	70%	70%	60%-80%	70%
Out-of-pocket maximum	$1,300	Per person $2,400 Family Max: $4,800 (excludes deductible)	$1700-$5000 (ind) $3400-$13200 (fam)	$3390 (ind) $8150 (fam)
Monthly Employee Contributions				
Employee only	$64.10	$95.00	$15.57-$359.67	$73.04
Family	$182.70	$250.00	$75.67-936.50	$227.94

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Active Medical Benefits

- The average or median for most of the benefit features across the competitor companies fall somewhere between National Grid's and Keyspan's benefit features
  - The key factor driving National Grid's medical programs to be more rich than their competitors is the fact that most in-network services are covered at 100% versus an average of 90% for their peers
  - Keyspan's medical plans are considered less competitive primarily because employee contributions are high, and some benefit features, such as in-network deductibles, are high when compared to their peer group
- If National Grid is interested in better aligning their programs with their competitors, National Grid could consider introducing an in-network deductible, raising office visit copays by $5-$10, and lowering coinsurance to 90% from 100%
  - All of these measures will be considered take-aways by employees, but introducing one or two of these cost sharing features, instead of all three, may reduce employee reaction
- Other observations:
  - National Grid's outpatient mental health copay of $5 is well outside the peer group range of $10-$30.
    - Typically, employers charge the same office visit copay for mental health services as are charged for all other office visits
  - Since National Grid already has high in-network utilization, adjusting the out-of-network deductibles and coinsurance up to the competitor group average would have little impact on overall costs and minimal reaction from employees

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Active Medical Benefits

- Overall, Keyspan's competitive positioning is largely driven by their in-network deductible which is well above the average of the comparator group
  - Their coinsurance level of 90% is on par with the average for the peer group, and the copay amount of $15 is slightly better than the peer group
  - Keyspan's individual contribution level, however, is 30% higher than the average individual contribution level of the peer group
    - While some of the peer group companies may offer less rich benefits than Keyspan, their contributions may be more in line with their benefit program offering
  - If in-network utilization is low, Keyspan could consider adjusting the out-of-network deductibles and out of pocket maximums up to the competitor group average

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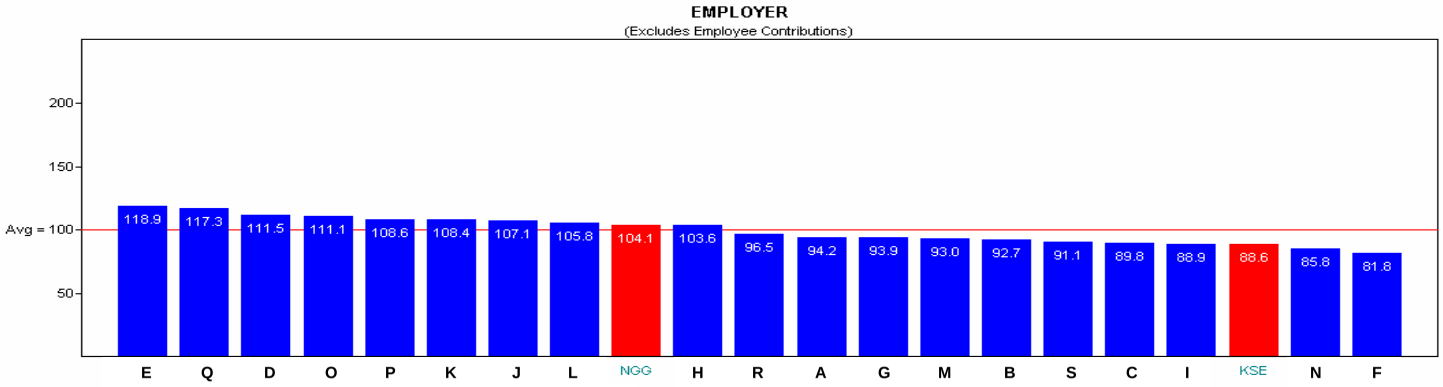
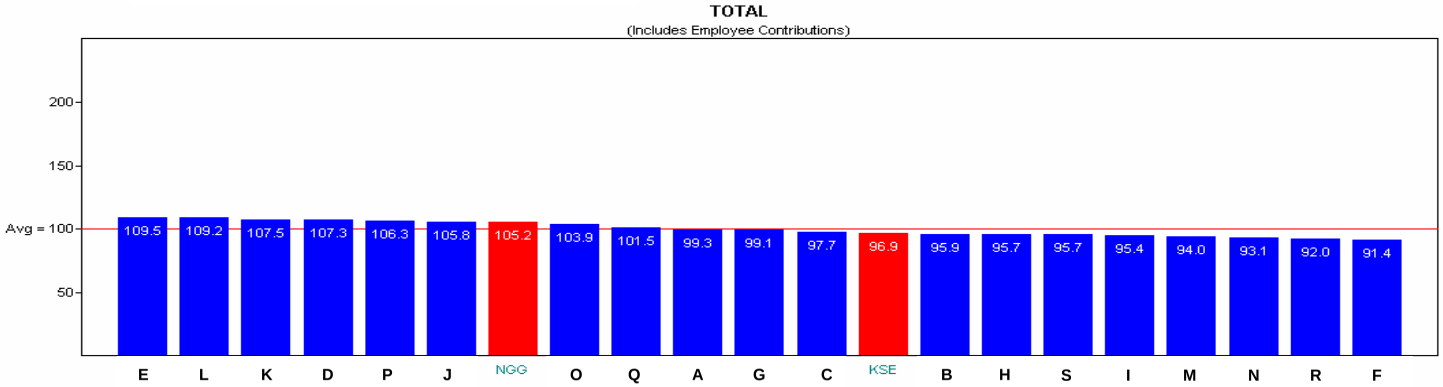
Active Medical Benefits

- The following bar chart further illustrates how National Grid's and Keyspan compare to their peers both in terms of gross benefit value of medical plans, as well as employer-provided value (i.e., net of employee contributions)





Dental Benefit Score and Rank

- The following table illustrates National Grid's and Keyspan's competitive positioning relative to their peer group in terms of active dental programs
  - In terms of Total Value, National Grid's designs are better than the average, whereas Keyspan's designs are below the average
  - Because Keyspan's contributions are about average, whereas National Grid's contributions are below the average, National Grid's Employer Value competitive positioning gets much better, whereas Keyspan's worsens

Dental Score and Rank		
	Score	**Rank/21**
Employer Value		
National Grid	125.3	7
Keyspan	79.5	16
Total Value		
National Grid	101.5	9
Keyspan	111.9	3

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Dental Benefits Comparison

- The following table compares National Grid's and Keyspan's plan design relative to their peer group plan designs

Key Plan Design Features -Dental Benefit			Comparitor Group	
	National Grid	Keyspan	Range	Average
Annual Deductible	Per Person: $50	Per Person $50 Family: $150	$0-$75 (Ind) $0-$225 (Fam)	$40 (Ind) $100 (Fam)
Annual Maximum	Preventative & Basic: $1,500/person (excludes orthodontia) Major $2,000/person (excludes orthodontia)	$2,000/Person (excludes orthodontia)	$1000-$2500	$1,700
Preventative Services	100% before deductible, 2 cleanings/ year	100% before deductible, 3 cleanings/year	80%-100%, 2-3 cleanings per year	100%, 2 cleanings per year
Basic Restorative	80%	80%	70%-100%	80%
Major Restorative	60%, every 5 years	50% every 5 years	50%-80%	60%
Orthodontia Coverage	100%	50%	50%-100%	60%
Orthodontia Maximum	$1,800 per lifetime	$2,000	$750-$2500	$1,700
Out of Network				
Deductible	N/A	N/A	$0-$200 (Ind) $0-$600 (Fam)	$80 (Ind), $220 (Fam)
Annual Maximum	N/A	N/A	$1500-$2000	$1,700
Monthly Employee Contributions				
Employee	$8.20	$17	$3.15-$70	$14
Family	$23.37	$43	$8-$160	$44

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Dental Benefits

- The key factors driving National Grid's dental programs to be slightly richer than some of their competitors are their low employee contributions (about half of the average contribution rates), and 100% orthodontia coverage
  - The average orthodontia coverage is 60%; National Grid could introduce some cost sharing for orthodontia and still remain competitive within their peer group, especially since the maximum is on par with the average
- Keyspan's dental plans are considered less competitive primarily because major restorative and orthodontia services are covered at a lower percentage than the average for the peer group.
  - The orthodontia maximum, however, is generous relative to the average
  - Contributions are in line with the average, though much higher than National Grid's contributions

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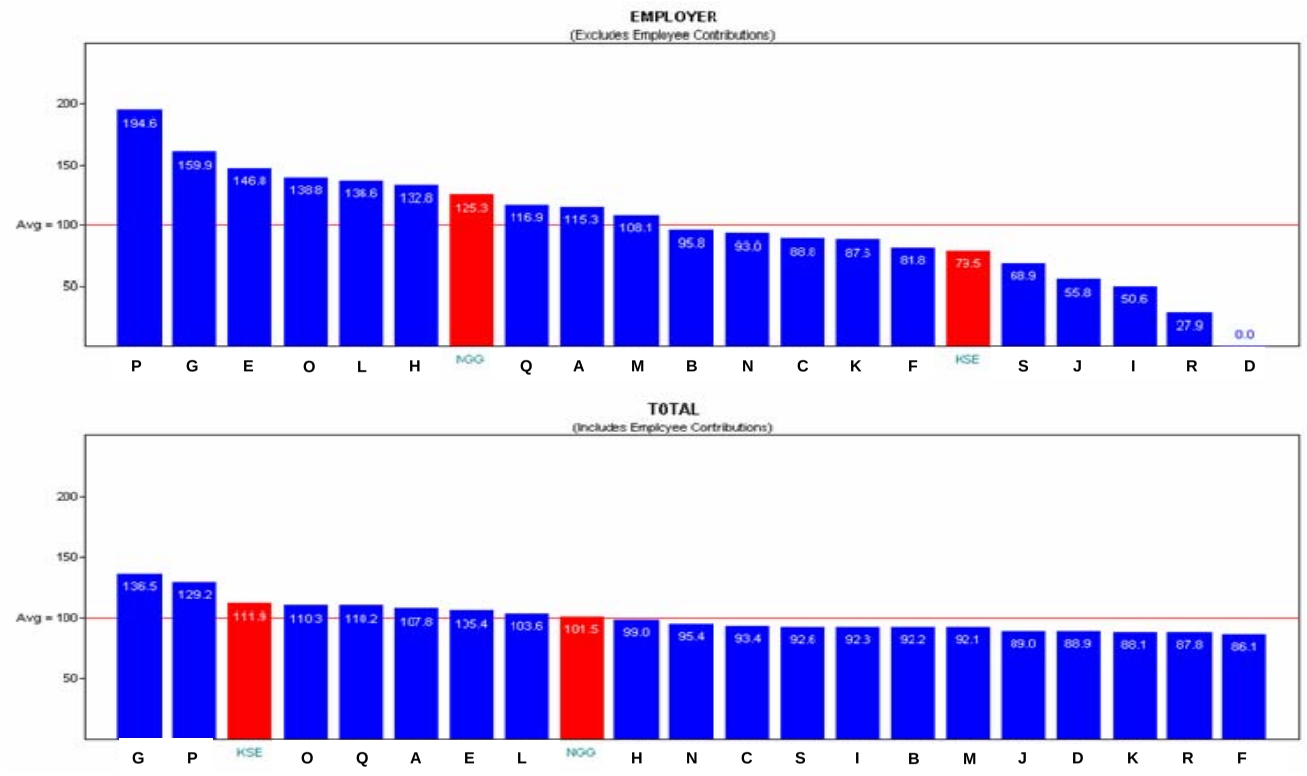
Dental Benefits

- The following bar chart further illustrates how National Grid and Keyspan compare to their peers both in terms of gross benefit value of dental plans, as well as employer-provided value (i.e., net of employee contributions)



Narragansett Electric Company
d/b/a National Grid
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Life Insurance/AD&D Benefit Score and Rank

- The following table illustrates National Grid's and Keyspan's competitive positioning relative to their peer group in terms of life insurance and AD&D programs
  - In terms of Total Value, National Grid's overall designs are more generous than the average, whereas Keyspan's designs are below the average (e.g., National Grid supports 2x pay for basic life, whereas Keyspan supports only 1x pay)
  - Employer Values are driven by the optional benefits (e.g. optional life, spouse and dependent life) and the associated employee contribution
    - National Grid's competitive positioning improves due to optional life contribution rates that are slightly better than the average, whereas Keyspan's position declines due to higher than average optional life rates

Death - Active Score and Rank	Score	Rank/21
Employer Value		
National Grid	137.9	6
Keyspan	86.5	14
Total Value		
National Grid	117.4	5
Keyspan	102.9	9

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Active Life Insurance/AD&D Comparison

- The following table compares National Grid's and Keyspan's plan design relative to their peer group plan designs

Key Plan Designs - Death Benefit	National Grid	Keyspan	Comparitor Group Range	Comparitor Group Average
Basic	2 x pay	1 x pay	.75 x pay- 2.5 x pay	1 x pay
Maximum	$1,500,000	$500,000	$30,000- unlimited	$815,833
Supplemental				
Employee option	1 to 5 x pay in multiples of 1 x pay	1 to 5 x pay in multiples of 1 x pay	1-2 pay to 1-10 pay	1-5 pay
Minimum	N/A	$10,000	N/A	N/A
Maxmimum	$1,000,000	$1,000,000	$375,000-unlimited	$2 million
Dependent Spouse	$25,000 or $50,000	Employee option $10,000 to $100,000 in mulitiples of $10,000	$2,000-$250,000	N/A
Children:	$2,500, $4,000, or $10,000	$2,000-$4,000	$1,000-$30,000	N/A
Accidental Death-Active				
Participation Requirements	1 month of service	None	1 month-none	None
Monthly Employee Contributions	None	None	None	None
Death Benefit Amount	2 x pay	$200,000	0-2.5 x pay, max $2.5 million	1 x pay

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Life Insurance/AD&D Benefits

- The key factors driving National Grid's life insurance and AD&D programs to be more rich than some of their competitors are their high basic life and AD&D benefit amounts (e.g. 2x pay)
  - The average basic life benefit is one times pay; National Grid's is two times pay, and the benefit maximum is almost twice the average benefit maximum
  - The average AD&D benefit amount is one times pay; National Grid's is two times pay
  - National Grid compares well with their competitors in terms of supplemental life benefits,
  - Spouse life benefits are below competitive norms
- Overall, Keyspan's competitive positioning is largely driven by their lower than average basic life maximum of $500,000 compared to the average of the competitor companies of approximately $800,000
- Keyspan compares well with their competitors in terms of the basic life benefit at one times pay and supplemental life benefit options at one to five times pay, and is much better than the average in terms of the AD&D benefit amount of $200,000

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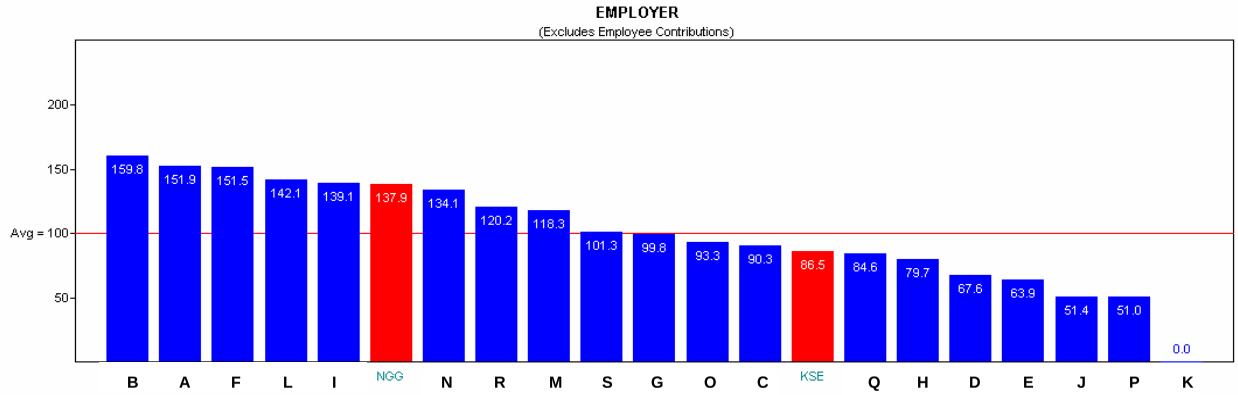
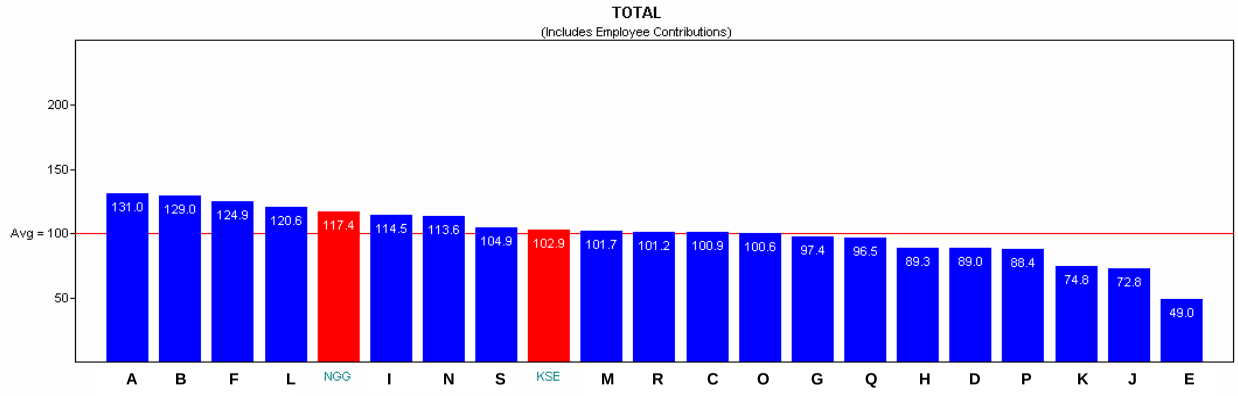
Active Life Insurance and AD&D Benefit

- The following bar chart further illustrates how National Grid and Keyspan compare to their peers both in terms of gross benefit value of life insurance and AD&D, as well as employer-provided value (i.e., net of employee contributions)





Short Term Disability Score and Rank

- The following table illustrates National Grid's and Keyspan's competitive positioning relative to their peer group in terms of STD programs
  - In terms of Total Value, both National Grid and Keyspan's overall designs are below average relative to their competitors (e.g., both National Grid and Keyspan provide 100% of pay for 1 week at 1 year of service, and 5 weeks at 5 years of service, compared to the competitor average of 9 and 12 weeks at 100%, respectively
  - Both National Grid's and Keyspan's Employer Value competitive positioning improves slightly relative to the Total Value due to the fact that two employers (O and P) in the comparator group require employee contributions for the salary continuance plan
  - STD results on their own can be skewed by the benefit period (i.e., the benefit period varies from 3 months to 1 year amongst the group), as a result it is important to review STD and LTD on a combined basis (refer to page 33)

Short Term Disability Score and Rank		
	Score	**Rank/21**
Employer Value		
National Grid	102.8	13
Keyspan	96.7	17
Total Value		
National Grid	98.3	15
Keyspan	92.4	19

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Short Term Disability Comparison

- The following table compares National Grid's and Keyspan's plan design relative to their peer group plan designs

Short Term Disability			Comparitor Group	
	National Grid	Keyspan	Range	Average
Sick Pay	1st day of disability	1st day of disability	1st day of disability	1st day of disability
Benefit Amount				
Sick Pay				
Years of Service	Weeks of Pay at 100%	Weeks of Pay at 100%	Weeks of Pay at 100%	Weeks of Pay at 100%
1	1	1	1-26	9
5	5	5	1-26	12
10	10	10	1-30	14
15	15	15	1-35	15
20	20	20	1-40	17
Salary Continuance	End of Sick Pay	End of Sick Pay	End of sick pay- 6 days	End of sick pay
Salary Continuance Amount	70% of pay; payable for 52 weeks per year	50% of pay; payable for 13 weeks per disability	60% for 26 weeks - 100% for 6 months, less Primary Social Security and less Dependent Social Security	100% for 3 months

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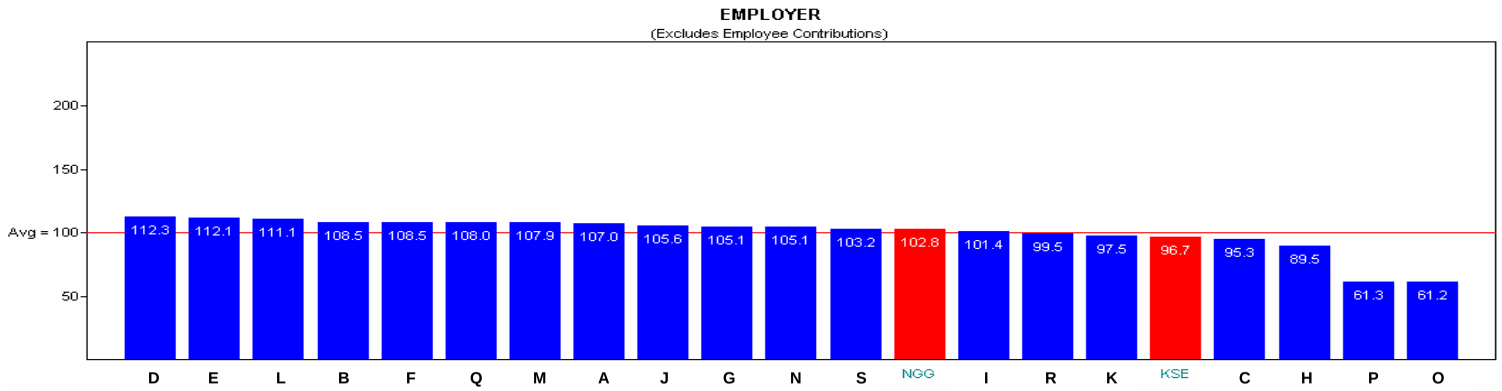
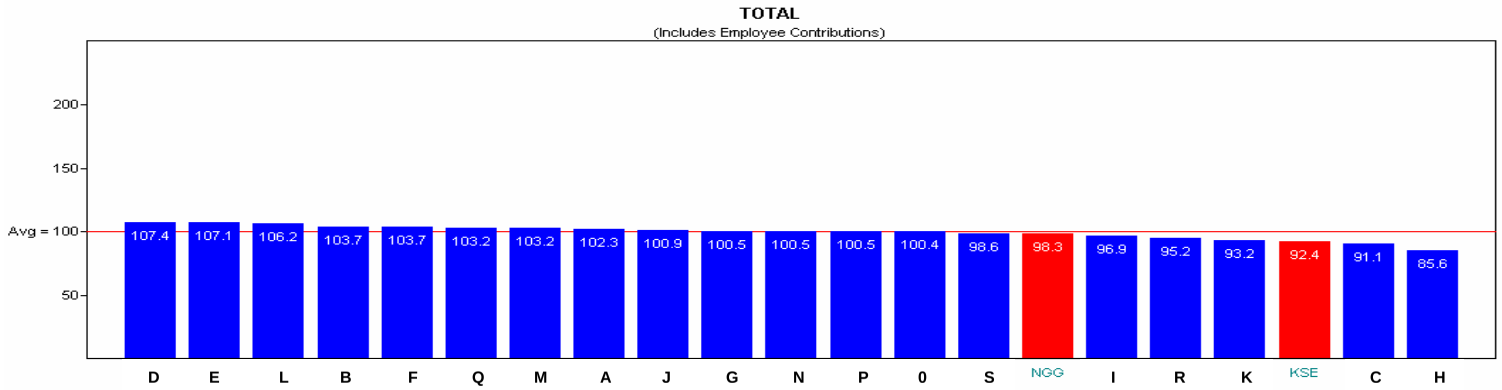
Short Term Disability

- The following bar chart further illustrates how National Grid and Keyspan compare to their peers both in terms of gross benefit value of STD plans, as well as employer-provided value (i.e., net of employee contributions)





Long Term Disability Benefit Score and Rank

- The following table illustrates National Grid's and Keyspan's competitive positioning relative to their peer group in terms of LTD programs
- Total Value results for LTD are largely driven by the benefit commencement date, duration of the benefit, the percent of pay covered, and maximum benefit
  - Although both National Grid and Keyspan offer a basic benefit of 60% of pay, which is higher than the average of 50%, commencement dates and duration drive competitive positioning
  - As mentioned when reviewing STD benefits, for this reason it is important to look at STD and LTD combined
- Employer Values shift more favorably for National Grid since no employee contributions are required, whereas the converse is true for Keyspan due to LTD contribution levels
  - Other two other employers (C and N) require employee contributions for basic LTD

Long Term Disability Score and Rank		
	Score	**Rank/21**
Employer Value		
National Grid	113.5	7
Keyspan	7.3	20
Total Value		
National Grid	93.2	12
Keyspan	81.0	18

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Long Term Disability Comparison

- The following table compares National Grid's and Keyspan's plan design relative to their peer group plan designs

Key Plan Design Features - Long Term Disability				
			Comparitor Group	
	National Grid	Keyspan	Range	Average
Commencement	After Exhaustion of short-term disability benefits	Later of 90 calendar days of disability or exhaustion of short-term disability benefits	12 weeks- 26 weeks	20 weeks
Duration Mental Health/Chemical Dependency	To age 65	24 Months	24 months-to age 65	24 months
Amount	60% of pay, Less Primary Social Security	60% of pay, Less Primary Social SecurityLess Dependent Social Security, Less Pension Benefits	35% of pay- 66.67% of pay (less primary SS and dependent SS)	50% of pay (less primary SS and dependent SS)
Maximum From all Sources	70% of pay Less Primary Social Security Less Dependent Social Security	$15,000 per month Less Primary Social Security Less Dependent Social Security	$5,000-$25,000 Less Primary Social Security Less Dependent Social Security	$11,000 Less Primary Social Security Less Dependent Social Security

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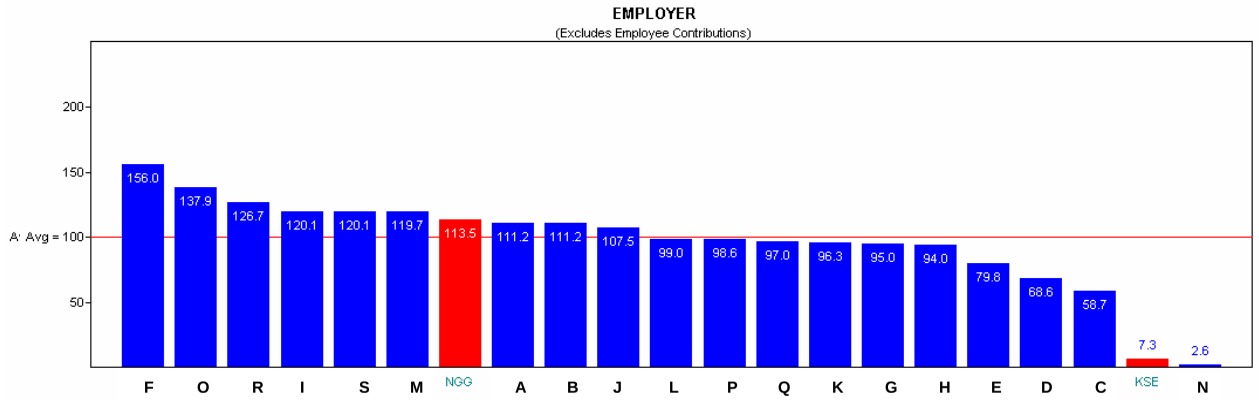
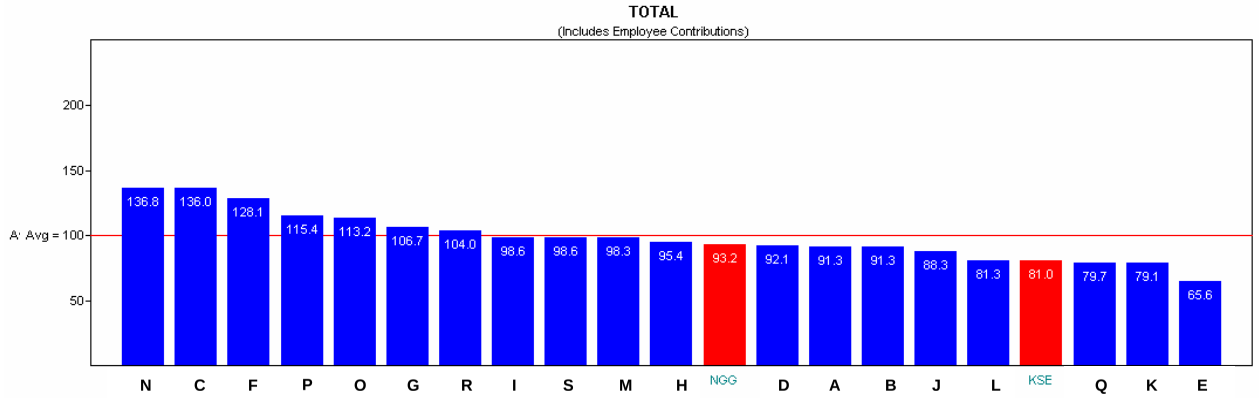
Long Term Disability Benefit

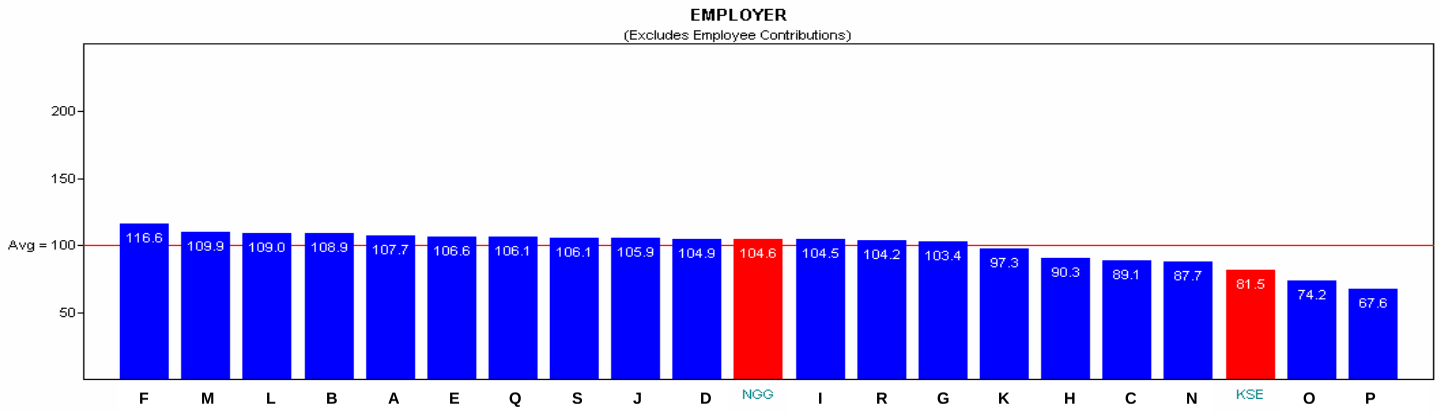
- The following bar chart further illustrates how National Grid and Keyspan compare to their peers both in terms of gross benefit value of LTD plans, as well as employer-provided value (i.e., net of employee contributions)

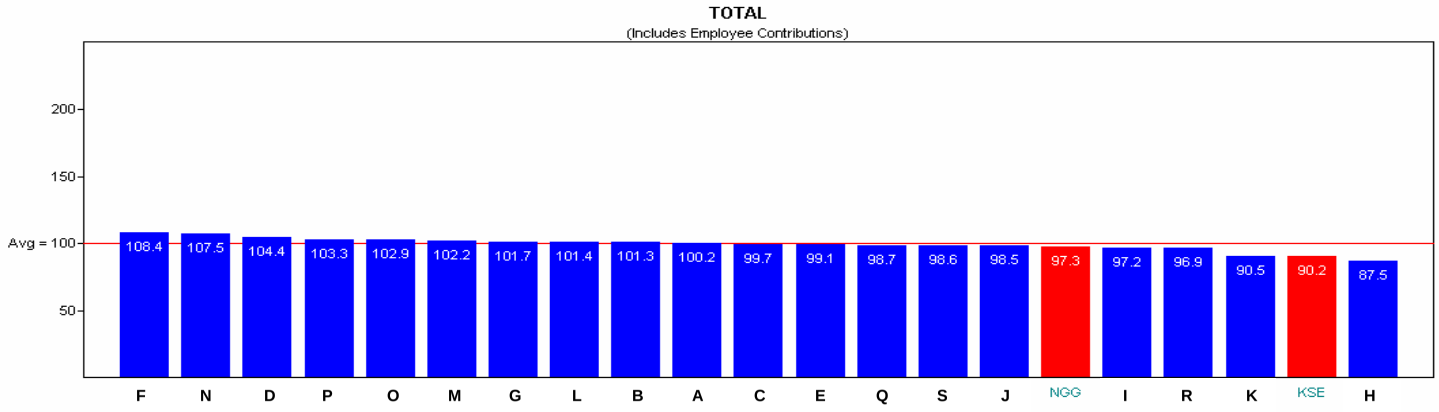




Short term Disability and Long Term Disability

- As previously mentioned, because differing elimination periods can skew results when looking at STD and LTD benefits individually, it is also important to look at the entire disability continuum





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Vacation and Holiday Benefit Score and Rank

- The following table illustrates National Grid's and Keyspan's competitive positioning relative to their peer group in terms of vacation and holiday programs
  - In terms of Total Value and Employer Value, National Grid's and Keyspan's overall designs are more generous than the average
  - While National Grid's vacation allowance is lower than the competitive average at earlier years of service, the vacation carryover provision is more generous, driving overall competitive positioning
    - Other employers in the comparator group, including Keyspan, either do not allow vacation day carryover, or have low limits on the number of days that can be carried over
  - Keyspan's overall vacation practices are in-line/slightly more generous than the competitor average

Vacation and Holiday Score and Rank

	Score	Rank/21
Employer Value		
National Grid	105.2	4
Keyspan	101.6	9
Total Value		
National Grid	105.2	4
Keyspan	101.6	9

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Vacation and Holiday Benefits Comparison

- The following table compares National Grid's and Keyspan's plan design relative to their peer group plan designs

Vacation and Holiday Practices						
					Comparitor Group	
	National Grid		Keyspan		Range	Average
Holidays	11		10		7-12 days	10 days
Floating holidays	1		2		0-4 days	2 days
Vacation						
Years of Service		Band 4	Band 3	Other Employees		
1	15	20	15	10	5-20	13
5	15	20	15	15	10-22	15
10	15	20	15	15	15-25	17
15	20	20	20	20	15-28	20
20	25	20	20	20	20-31	22

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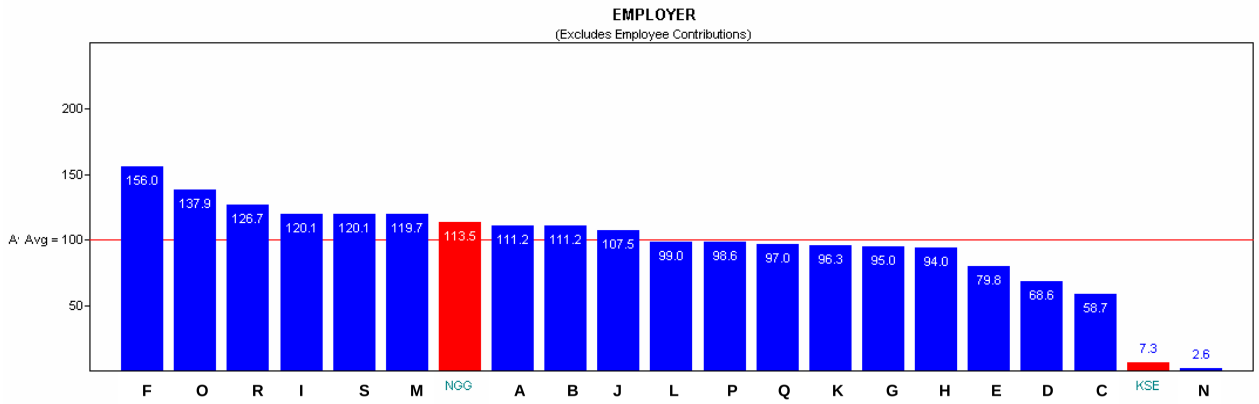
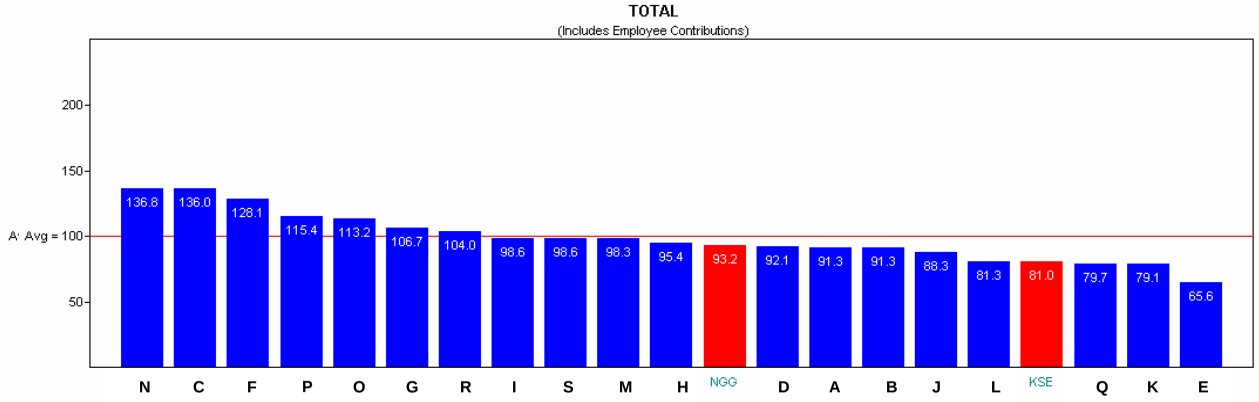
Vacation and Holiday Score and Rank

- The following bar chart further illustrates how National Grid and Keyspan compare to their peers both in terms of gross benefit value of vacation and holiday plans, as well as employer-provided value (i.e., net of employee contributions)





Testimony of
K. Kateregga

PRE-FILED DIRECT TESTIMONY

OF

Dr. Kimbugwe A. Kateregga

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Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS ADDRESS?

A. My name is Kimbugwe A. Kateregga. My business address is 17595 S. Tamiami Trail, Suite 212, Fort Myers, Florida 33908.

Q. WHAT IS YOUR OCCUPATION?

A. I am a Vice President and Consultant of Foster Associates, Inc.

I. QUALIFICATIONS

Q. WOULD YOU BRIEFLY DESCRIBE YOUR EDUCATIONAL TRAINING AND PROFESSIONAL BACKGROUND?

A. I received a B.Sc. (Eng.) degree in Civil Engineering from Makerere University in Uganda and a M.Sc. degree in Management Science from the University of Wales in 1982. I also received a Ph.D. degree in Engineering Valuation from Iowa State University in 1987. The subject of my Masters thesis was forecasting equipment lives and my Doctoral research and dissertation addressed technological forecasting models and their applications in capital recovery. I have made presentations to regulators, committees, and conferences on capital recovery issues, published articles in the field of depreciation and technological forecasting and taught college level mathematics and statistics. I am a member of Phi Kappa Phi, the American Association of Cost Engineers and the Society of Depreciation Professionals.

Q. WHAT IS YOUR PROFESSIONAL EXPERIENCE?

A. I joined the firm of Foster Associates in 1986 as a Staff Consultant and specialist in depreciation. Prior to joining Foster Associates, I was employed as a Research Assistant at Iowa State University. I served under contract in this capacity between 1983 and 1986 to investigate marginal cost pricing issues and the application of technological forecasting models in predicting the service life of industrial property. The findings of this research have been implemented in the telecommunications industry.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE A REGULATORY BODY?

A. Yes. I have testified in several proceedings before the Arizona, Arkansas, Montana, New York, New Jersey and Rhode Island public service commissions.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. Foster Associates was engaged by National Grid to conduct a 2009 depreciation rate study for electric properties owned and operated by The Narragansett Electric Company (NEC) d/b/a National Grid. The purpose of my testimony is to sponsor and describe the study conducted by Foster Associates. Current depreciation rates were adopted pursuant to a Settlement Agreement in Docket No. 2290.

III. DEVELOPMENT OF DEPRECIATION RATES

Q. WOULD YOU PLEASE EXPLAIN WHY DEPRECIATION STUDIES ARE NEEDED FOR ACCOUNTING AND RATEMAKING PURPOSES?

A. The goal of depreciation accounting is to charge to operations a reasonable estimate of the cost of the service potential of an asset (or group of assets) consumed during an accounting interval. A number of depreciation systems have been developed to achieve this objective, most of which employ time as the apportionment base.

Implementation of a time-based (or age-life system) of depreciation accounting requires the estimation of several parameters or statistics related to a plant account. The average service life of a vintage, for example, is a statistic that will not be known with certainty until all units from the original placement have been retired from service. A vintage average service life, therefore, must be estimated initially and periodically revised as indications of the eventual average service life becomes more certain. Future net salvage rates and projection curves, which describe the expected distribution of retirements over time, are also estimated parameters of a depreciation system that are subject to future revisions. Depreciation studies should be conducted periodically to assess the continuing reasonableness of parameters and accrual rates derived from prior estimates.

The need for periodic depreciation studies is also a derivative of the ratemaking process which establishes prices for utility services based on costs. Absent regulation, deficient or excessive depreciation rates will produce no adverse consequence other than a systematic over or understatement of the accounting measurement of earnings. While a continuance of such practices may not comport with the goals of depreciation accounting, the achievement of capital recovery is not dependent upon either the amount or the timing of depreciation expense for an unregulated firm. In the case of a regulated utility, however, recovery of investor-supplied capital is dependent upon allowed revenues, which are in turn dependent upon approved levels of depreciation expense. Periodic reviews of depreciation rates are, therefore, essential to the achievement of timely capital recovery for a regulated utility.

It is also important to recognize that revenue associated with depreciation is a significant source of internally generated funds used to finance plant replacements and new capacity additions. This is not to suggest that internal cash generation should be substituted for the goals of depreciation accounting. However, the potential for realizing a reduction in the marginal cost of external financing provides an added incentive for conducting periodic depreciation studies and adopting proper depreciation rates.

Q. WHAT ARE THE PRINCIPAL ACTIVITIES INVOLVED IN CONDUCTING A DEPRECIATION STUDY?

A. The first step in conducting a depreciation study is the collection of plant accounting data needed to conduct a statistical analysis of past retirement experience. Data are also collected to permit an analysis of the relationship between retirements and realized gross salvage and removal expense. The data collection phase should include a verification of the accuracy of the plant accounting records and a reconciliation of the assembled data to the official plant records of the company.

The next step in a depreciation study is the estimation of service life statistics from an analysis of past retirement experience. The term *life analysis* is used to de-

scribe the activities undertaken in this step to obtain a mathematical description of the forces of retirement acting upon a plant category. The mathematical expressions used to describe these forces are known as survival functions or survivor curves.

Life indications obtained from an analysis of past retirement experience are blended with expectations about the future to obtain an appropriate projection life curve. This step, called *life estimation*, is concerned with predicting the expected remaining life of property units still exposed to the forces of retirement. The amount of weight given to the analysis of historical data will depend upon the extent to which past retirement experience is considered descriptive of the future.

An estimate of the net salvage rate applicable to future retirements is usually obtained from an analysis of the gross salvage and removal expense realized in the past. An analysis of past experience (including an examination of trends over time) provides a baseline for estimating future salvage and cost of removal. Consideration, however, should be given to events that may cause deviations from the net salvage realized in the past. Among the factors which should be considered are the age of plant retirements; the portion of retirements that will be reused; changes in the method of removing plant; the type of plant to be retired in the future; inflation expectations; the shape of the projection life curve; and economic conditions that may warrant greater or lesser weight to be given to the net salvage observed in the past.

A comprehensive depreciation study will also include an analysis of the adequacy of the recorded depreciation reserve. The purpose of such an analysis is to compare the current balance in the recorded reserve with the balance required to achieve the goals and objectives of depreciation accounting if the amount and timing of future retirements and net salvage are realized exactly as predicted. The difference between the required (or theoretical) reserve and the recorded reserve provides a measurement of the expected excess or shortfall that will remain in the depreciation reserve if corrective action is not taken to extinguish the reserve imbalance.

Although reserve records are typically maintained by various account classifications, the total reserve for a company is the most important measure of the status of the Company's depreciation practices and procedures. Differences between the theoretical reserve and the recorded reserve will arise as a normal occurrence when service lives, dispersion patterns and salvage estimates are adjusted in the course of depreciation reviews. Differences will also arise because of plant accounting activity such as transfers and adjustments, which require an identification of reserves at a different level from that maintained in the accounting system. It is appropriate, therefore, and consistent with group depreciation theory, to periodically redistribute recorded reserves among primary accounts based on the most recent estimates of retirement dispersion and salvage. A redistribution of the recorded reserve will provide an initial reserve balance for each primary account consistent with the estimates of retirement dispersion selected to describe mortality characteristics of the accounts and establish a baseline against which future comparisons can be made.

Finally, parameters estimated from service life and net salvage studies are integrated into an appropriate formulation of an accrual rate based upon a selected depreciation system. Three elements are needed to describe a depreciation system. The sub-elements most widely used in constructing a depreciation system are shown in Table 1 below.

Methods	Procedures	Techniques
Retirement	Total Company	Whole-Life
Compound-Interest	Broad Group	Remaining-Life
Sinking-Fund	Vintage Group	Probable-Life
Straight-Line	Equal-Life Group	
Declining Balance	Unit Summation	
Sum-of-Years'-Digits	Item	
Expensing		
Unit-of-Production		
Net Revenue		

Table 1. Elements of a Depreciation System

These elements (*i.e.*, method, procedure and technique) can be visualized as three dimensions of a cube in which each face describes a variety of sub–elements that can be combined to form a system. A depreciation system is therefore formed by selecting a sub-element from each face such that the system contains one method, one procedure and one technique.

IV. 2009 DEPRECIATION RATE STUDY

Q. DID NEC PROVIDE FOSTER ASSOCIATES PLANT ACCOUNTING DATA FOR CONDUCTING THE 2009 DEPRECIATION STUDY?

A. Yes, they did. The database used in conducting the 2009 study was assembled by appending 1995–2008 plant and reserve activity to the data base used in conducting the 1995 study. Detailed accounting transactions were extracted from the CPR system and assigned transaction codes that describe the nature of the accounting activity. Transaction codes for plant additions, for example, were used to distinguish normal additions from acquisitions, purchases, reimbursements and adjustments. Similar transaction codes were used to distinguish normal retirements from sales, reimbursements, abnormal retirements and adjustments. Transaction codes were also assigned to transfers, capital leases, gross salvage, cost of removal and other accounting activity considered in a depreciation study.

Prior to 1993, Narragansett Electric estimated the ageing of plant activity for distribution mass plant accounts (Accounts 364.00 through 373.00) using an estimated projection life and curve for each account. Although theoretically sound for accounts in which population parameters are known, in practice this method is somewhat circular. The recorded plant activity is dependent upon the estimated parameters which are themselves developed from the plant activity they generate.

Foster Associates was engaged by Narragansett Electric in 1993 to develop age distributions for Accounts 364.00 through 373.00 that would be used to initiate a first-in, first-out (FIFO) ageing process. The new age distributions at December 31,

1992 were used to populate the Company's CPR system in September 1993. Minor adjustments were recorded for January – September 1993 activity. The data base used in the current study for these accounts contains opening age distributions at December 31, 1992, and FIFO plant activity for 1993 through 2008. Plant installed prior to 1966 is classified in a 1966 vintage.

The data base used in the 1995 study for all other transmission, distribution, and general plant Accounts 390.00 (Structures and Improvements) and 397.00 (Communication Equipment) was constructed from the Company's CPR system by Company personnel. These plant records provided plant activity over the period 1969 through 1994 and age distributions of surviving plant at December 31, 1994. Age distributions of plant exposed to retirement at the beginning of each activity year were obtained by adding (or subtracting) transaction amounts to the coded age distributions of surviving plant at the end of 1994. Coded age distributions of surviving plant at the end of 1994 were then removed from the data base. This conversion of the data base from a reverse construction of the historical arrangement to a forward construction was made to facilitate appending post–1994 transactions to the data without removing or adjusting prior coded transactions.

The accuracy of the assembled data base for all accounts-except the FIFO mass accounts-was verified over the period 1969–1994 in the 1995 study by comparing the unadjusted plant history schedules derived in the study with the Company's ledger reports. The mass accounts were reconciled for post-1993 activity reflecting the FIFO ageing process.

The accuracy and completeness of the database used in conducting the 2009 study was confirmed by Foster Associates for activity years 1995–2008 by comparing additions, retirements, transfers, adjustments and ending plant balance to the regulated investments reported by NEC in FERC Form 1 electric plant in service reports. Age distributions of surviving plant at December 31, 2008 were reconciled to the CPR.

Q. DID FOSTER ASSOCIATES CONDUCT STATISTICAL LIFE STUDIES FOR NEC PLANT AND EQUIPMENT?

A. Yes, we did. As discussed in Schedule NG-KAK-1, all plant accounts were analyzed using a technique in which first, second and third degree polynomials were fitted to a set of observed retirement ratios. The resulting function can be expressed as a survivorship function, which is numerically integrated to obtain an estimate of the average service life. The smoothed survivorship function is then fitted by a weighted least-squares procedure to the Iowa-curve family to obtain a mathematical description or classification of the dispersion characteristics of the data. Service life indications derived from the statistical analyses were blended with informed judgment and expectations about the future to obtain an appropriate projection life curve for each plant category.

Q. DID FOSTER ASSOCIATES CONDUCT A NET SALVAGE ANALYSIS FOR NEC PLANT AND EQUIPMENT?

A. Yes, we did. A five-year average analysis of the ratio of realized salvage and cost of removal to associated retirements was used in the 2009 study for all depreciable categories to: a) estimate realized net salvage rates; b) detect the emergence of historical trends; and c) establish a basis for estimating future net salvage rates. The banding analysis produced inconclusive indications of future net salvage ratios for reasons outlined below.

Prior to the 1995 study, depreciation rates used by NEC did not include a net salvage component; a net salvage rate of zero percent was implied for all plant accounts. While the 1995 study included a consideration of net salvage, accrual rates and reserves were developed at the function level for net salvage and by primary account for investment accruals. Upon implementation, NEC combined the function net salvage rates within the investment rate for each primary account and continued to record depreciation accruals and realized net savage in function level reserves.

In 2004 NEC migrated to a plant accounting system supported by Power Plant. Function reserves were disaggregated in the conversion process to initialize reserves by primary account. Accordingly, the earliest activity year in which realized net salvage is identifiable by primary account is 2004. This limited history (combined with significant variability in realized net salvage as a percent of retirements) necessitated an examination of how net salvage is charged to work orders and a back–casting of current practices to prior activity years.

Starting in 2004 the Company allocates net salvage to retirement work orders by applying appropriate ratios to associated capital additions. Statement E of Schedule NG-KAK-1 provides a computation of the composite ratio applied to primary distribution account additions over the period 2004–2008. The resulting ratios were applied to the sum of all additions over the period 1969–2008 for actual aged accounts and over the period 1993–2008 for FIFO aged accounts. The implied net salvage derived from this computation was expressed as a ratio to the sum of retirements recorded over the corresponding period of additions to obtain a -29.02 percent as an estimate of future net salvage rates. A composite future net salvage rate of –30 percent was, therefore, selected as a placeholder for all distribution accounts pending the realization of additional activity years from which net salvage rates among primary accounts may be distinguished.[1]

Q. DID FOSTER ASSOCIATES CONDUCT AN ANALYSIS OF RECORDED DEPRECIATION RESERVES?

A. Yes. Statement C of Schedule NG-KAK-1 provides a comparison of NEC recorded, computed and redistributed reserves at December 31, 2008. The recorded reserve was $552,926,186 or 40.6 percent of the depreciable plant investment. The corresponding computed reserve is $529,418,359 or 38.9 percent of the depreciable plant invest-

[1] A similar analysis of transmission accounts yielded unrealistic results as a consequence of insufficient data. The current approved future net salvage of –20 percent was retained for all transmission accounts.

ment. A proportionate amount of the measured reserve imbalance of $23,507,827 will be amortized over the composite weighted-average remaining life of each rate category using the remaining life depreciation rates proposed in this study.

Q. IS FOSTER ASSOCIATES RECOMMENDING A REBALANCING OF DEPRECIATION RESERVES FOR NEC?

A. Yes, a redistribution of recorded reserves is considered appropriate for NEC at this time. Offsetting reserve imbalances attributable to both the passage of time and parameter adjustments recommended in the current study should be realigned among primary accounts to reduce offsetting imbalances and increase depreciation rate stability. Recorded reserves should also be realigned to establish reserves for subaccounts created subsequent to the adoption of current depreciation rates.

Recorded reserves for transmission and distribution plant accounts were rebalanced by multiplying the calculated reserve for each primary account within a function by the ratio of the function total recorded reserves to the function total calculated reserve. The sum of the redistributed reserves within a function is, therefore, equal to the function total recorded depreciation reserve before the redistribution. Reserves for general amortizable categories were adjusted by replacing recorded reserves with current measured theoretical reserves and distributing any reserve imbalances to depreciable categories within the general plant function.

Q. WOULD YOU PLEASE DESCRIBE THE DEPRECIATION SYSTEM CURRENTLY APPROVED BY THE COMMISSION FOR NEC?

A. Current depreciation rates were developed for each primary account using a depreciation system composed of the straight–line method, vintage group procedure, remaining–life technique.

The formulation of an account accrual rate using the currently approved depreciation system is given by:

$$\text{Accrual Rate} = \frac{1.0 - \text{Reserve Ratio} - \text{Future Net Salvage Rate}}{\text{Remaining Life}}.$$

A remaining–life rate is equivalent to the sum of a whole-life rate and an amortization of any reserve imbalance over the estimated remaining life of a rate category. Stated as an equation, a remaining-life accrual rate is equivalent to

$$\text{Accrual Rate} = \frac{1.0 - \text{Average Net Salvage}}{\text{Average Life}} + \frac{\text{Computed Reserve} - \text{Recorded Reserve}}{\text{Remaining Life}}$$

where both the computed reserve and the recorded reserve are expressed as ratios to the plant in service.

Q. IS FOSTER ASSOCIATES RECOMMENDING A CHANGE IN THE DEPRECIATION SYSTEM FOR NEC?

A. No, we are not. It is the opinion of Foster Associates that the currently approved system will remain appropriate for NEC, provided depreciation studies are conducted periodically and parameters are routinely adjusted to reflect changing operating conditions. It is also the opinion of Foster Associates that amortization accounting is consistent with the goals and objectives of depreciation accounting and remains appropriate for the approved amortization categories.

V. SUMMARY

Q. WOULD YOU PLEASE SUMMARIZE THE DEPRECIATION RATES AND ACCRUALS FOSTER ASSOCIATES IS RECOMMENDING FOR NEC IN THE 2009 STUDY?

A. Table 2 below provides a summary of the changes in annual rates and accruals resulting from adoption of the parameters and depreciation system recommended in the 2009 depreciation study.

Function	Accrual Rate			2009 Annualized Accrual		
	Current	Proposed	Difference	Current	Proposed	Difference
A	B	C	D=C-B	E	F	G=F-E
Transmission	2.29%	2.20%	-0.09%	$ 5,232,396	$ 5,038,030	$ (194,366)
Distribution	3.53%	3.35%	-0.18%	37,932,216	36,085,736	(1,846,480)
General Plant	4.07%	4.19%	0.12%	2,309,090	2,375,638	66,548
Total	3.34%	3.20%	-0.14%	$ 45,473,702	$ 43,499,404	$ (1,974,298)

Table 2. Current and Proposed Rates and Accruals

Foster Associates is recommending primary account depreciation rates equivalent to a composite rate of 3.20 percent. Depreciation expense is currently accrued at rates that composite to 3.34 percent. The recommended change in the composite depreciation rate is, therefore, a reduction of 0.14 percentage points.

A continued application of current rates would provide annualized depreciation expense of $45,473,702 compared with an annualized expense of $43,499,404 using the rates developed in this study. The proposed 2009 expense reduction is $1,974,298. The computed change in annualized accruals includes a reduction of $799,031 attributable to an amortization of a $23,507,827 reserve imbalance. The remaining portion of the change is attributable to adjustments in service life and net salvage statistics recommended in the 2009 study.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Schedule
NG-KAK-1

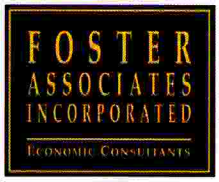
Attachment KAK–1

2009 Depreciation Rate Study

The Narragansett Electric Company

Prepared by
Foster Associates, Inc.

FOSTER ASSOCIATES INCORPORATED
ECONOMIC CONSULTANTS



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(239) 267-1600 • FAX (239) 267-5030

Ronald E. White, Ph.D.
Chairman

April 20, 2009

Ms. Lisa N. Figliozzi
Manager, Plant Accounting
NATIONAL GRID USA
25 Hub Drive
Melville, NY 11747

RE: 2009 Depreciation Rate Study

Dear Ms. Figliozzi:

Foster Associates is pleased to submit our report of a 2009 Depreciation Rate Study for The Narragansett Electric Company (NEC). This report presents the results of our review leading to a recommendation that NEC seek regulatory authorization to adopt straight–line, vintage–group, remaining–life rates and record depreciation expense using primary account accrual rates developed in the 2009 Study. The recommended accrual rates are equivalent to a composite rate of 3.20 percent compared with a currently approved composite rate of 3.34 percent.

The following table provides a comparison of current and proposed depreciation rates and accruals for calendar year 2009, based upon plant investments and deprecation reserves at December 31, 2008.

	Accrual Rate			2009 Annualized Accrual		
Function	Current	Proposed	Difference	Current	Proposed	Difference
A	B	C	D=C-B	E	F	G=F-E
Transmission	2.29%	2.20%	-0.09%	$ 5,232,396	$ 5,038,030	$ (194,366)
Distribution	3.53%	3.35%	-0.18%	37,932,216	36,085,736	(1,846,480)
General	4.07%	4.19%	0.12%	2,309,090	2,375,638	66,548
Total	3.34%	3.20%	-0.14%	$ 45,473,702	$ 43,499,404	$ (1,974,298)

A continued application of currently approved rates would provide annual depreciation expense of $45,473,702 compared with an annual expense of $43,499,404 using the rates recommended in the study. The resulting change in depreciation rates produces an annualized 2009 expense reduction of $1,974,298.

The scope of our investigation included:

- Collection of plant and net salvage data;
- Reconciliation of data to the official records of the Company;
- Site visits and discussions with NEC operations and plant accounting personnel;
- Statistical studies of historical retirement activity;

- Estimation of projection lives and retirement dispersion patterns;
- Analysis of gross salvage and cost of removal;
- Analysis and redistribution of recorded depreciation reserves; and
- Development of recommended accrual rates for each rate category.

The results of our investigation are presented in the enclosed report in five sections. The Executive Summary provides an overview of the review and a discussion of the principal findings. The Company Profile provides background information about NEC that is foundational to the study. The Study Procedure section describes the steps involved in conducting a comprehensive depreciation study and the specific procedures used in this engagement. The Statements provide a comparative summary of current and proposed depreciation parameters, rates and accruals. The report concludes with the Analysis section containing an example of supporting schedules prepared for each plant account.

We wish to express our appreciation for this opportunity to be of service to National Grid and for the assistance provided to us. We would be pleased to discuss the enclosed report with you or others at your convenience.

Respectfully submitted,
FOSTER ASSOCIATES, INC.
by

Ronald E. White, Ph.D.
Chairman

REW:ml

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EXECUTIVE SUMMARY

INTRODUCTION

This report presents findings and recommendations developed in a 2009 depreciation study conducted by Foster Associates, Inc. (Foster Associates) for electric plant owned and operated by The Narragansett Electric Company (NEC), distribution subsidiaries of National Grid. Work on the study commenced in February 2009 and progressed through mid–April, at which time the project was completed.

Foster Associates is a public utility economic consulting firm headquartered in Bethesda, Maryland offering economic research and consulting services on issues and problems arising from governmental regulation of business. Areas of specialization supported by the firm's Fort Myers, Florida office include property life forecasting, technological forecasting, depreciation estimation, and valuation of industrial property.

Foster Associates has undertaken numerous depreciation engagements for both public and privately owned business entities including detailed statistical life studies, analyses of required net salvage rates, and the selection of depreciation systems that will most nearly achieve the goals of depreciation accounting under the constraints of either government regulation or competitive market pricing. Foster Associates is widely recognized for industry leadership in the development of depreciation systems, life analysis techniques and computer software for conducting depreciation and valuation studies.

This is the second comprehensive depreciation study undertaken by NEC in recent years. Current depreciation rates were adopted pursuant to a Settlement Agreement in Docket No. 2290 (Agreement dated May 9, 1996) based on year–end 1994 plant and reserve balances. A net salvage study conducted in 1994 was initially filed in Docket No. 2290 with a request to commence accruing for net salvage pending completion of a full depreciation study. A completed study was subsequently filed in Docket No. 2290 and adjusted to derive settled depreciation rates. The Settlement Agreement provided: a) adoption of service life and net salvage parameters requested for transmission plant; b) retention of prior service lives for distribution plant; c) a 40–year service life for general plant Account 390.00 (Structures and Improvements); d) a 20–year amortization period for general plant accounts; and e) a –10 percent net salvage ratio for distribution plant.

The principal findings and recommendations of the 2009 Depreciation Rate Study are summarized in the Section IV of this report. Statement A provides a comparative summary of current and proposed annual depreciation rates for each rate category. Statement B provides a comparison of current and proposed annual depreciation accruals. Statement C provides a comparison of computed, recorded and redistributed depreciation reserves for each rate category. Statement D provides a summary of the components used to obtain weighted–average net salvage

rates. Statement E provides an analysis of future net salvage rates for distribution plant accounts. Statement F provides a comparative summary of current and proposed parameters including projection life, projection curve and future net salvage rates. Statement F also contains current and proposed statistics including average service life, average remaining life, and average net salvage rates.

SCOPE OF STUDY

The principal activities undertaken in the course of the current study included:

- Collection of plant and net salvage data;
- Reconciliation of data to the official records of the Company;
- Site visits and discussions with NEC operations and plant accounting personnel;
- Statistical studies of historical retirement activity;
- Estimation of projection lives and retirement dispersion patterns;
- Analysis of gross salvage and cost of removal;
- Analysis and redistribution of recorded depreciation reserves; and
- Development of recommended accrual rates for each rate category.

DEPRECIATION SYSTEM

A depreciation rate is formed by combining the elements of a depreciation system. A depreciation system is composed of a method, a procedure and a technique. A depreciation method (*e.g.*, straight–line) describes the component of the system that determines the acceleration or deceleration of depreciation accruals in relation to either time or use. A depreciation procedure (*e.g.*, vintage group) identifies the level of grouping or sub–grouping of assets within a plant category. The level of grouping specifies the weighting used to obtain composite life statistics for an account. A depreciation technique (*e.g.*, remaining–life) describes the life statistic used in the system.

With the exception of certain general plant categories for which amortization accounting has been approved, depreciation rates currently used by NEC were developed from a system composed of the straight–line method, vintage group procedure, remaining–life technique. Amortization accounting is used for general plant categories in which the unit cost of plant items is small in relation to the number of units classified in an account or the disposition of property units is difficult to identify. Plant is retired (*i.e.*, credited to plant and charged to the reserve) as each vintage achieves an age equal to the amortization period.

The matching and expense recognition principles of accounting provide that the cost of an asset (or group of assets) should be allocated to operations over an

estimate of the economic life of the asset in proportion to the consumption of service potential. It is the opinion of Foster Associates that the objectives of depreciation accounting are being achieved through the use of the vintage group procedure, which distinguishes service lives among vintages, and the remaining–life technique, which provides cost apportionment over the estimated weighted average remaining life of a rate category. Although the emergence of economic factors such as competition and incentive forms of regulation may eventually encourage abandonment of the straight–line method, no attempt was made in the current study to address these concerns.

PROPOSED DEPRECIATION RATES

Table 1 below provides a summary of the changes in annual rates and accruals resulting from an application of the parameters and depreciation rates recommended in the 2009 study.

Function	Accrual Rate			2009 Annualized Accrual		
	Current	Proposed	Difference	Current	Proposed	Difference
A	B	C	D=C-B	E	F	G=F-E
Transmission	2.29%	2.20%	-0.09%	$ 5,232,396	$ 5,038,030	$ (194,366)
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Total	3.34%	3.20%	-0.14%	$ 45,473,702	$ 43,499,404	$ (1,974,298)

Table 1. Current and Proposed Rates and Accruals

Foster Associates is recommending primary account depreciation rates equivalent to a composite rate of 3.20 percent. Depreciation expense is currently accrued at rates that composite to 3.34 percent. The recommended change in the composite depreciation rate is, therefore, a reduction of 0.14 percentage points.

A continued application of current rates would provide annualized depreciation expense of $45,473,702 compared with an annualized expense of $43,499,404 using the rates developed in this study. The proposed 2009 expense reduction is $1,974,298. The computed change in annualized accruals includes a reduction of $799,031 attributable to an amortization of a $23,507,827 reserve imbalance. The remaining portion of the change is attributable to adjustments in service life and net salvage statistics recommended in the 2009 study.

Of the 34 plant accounts included in the 2009 study, Foster Associates is recommending rate reductions for 22 accounts and rate increases for 12 accounts.

COMPANY PROFILE

GENERAL

The Narragansett Electric Company is a wholly–owned subsidiary of National Grid operating in Rhode Island. The Company was incorporated under the laws of the state of Rhode Island in 1926, as United Electric Power Company the name of the Company was subsequently changed to The Narragansett Electric Company in April of 1927. Narragansett was acquired by National Grid from New England Electric Systems in 1998.

The Narragansett Electric Company is a retail distribution company providing electric services to approximately 471,000 customers. The properties of the Company include an integrated system of transmission and distribution lines, interconnected with transmission and other facilities of New England Power Company (NEP), an affiliate. At December 31, 2008, Narragansett Electric owned 113 line transformers, and 416 circuit miles of transmission lines. The Company buys its electric energy requirements from NEP under contract. The Company participates through NEP in the New England Power Pool, which provides for the coordination of the planning and operation of the generation and transmission facilities in New England, and the region-wide central dispatch of generation.

SERVICE AREA

Electric service is provided to approximately 471,000 customers in 38 cities and towns. The Company's service area covers approximately 99 percent of Rhode Island.

CUSTOMER BASE

During 2008, nearly 45.4 percent of Narragansett Electric's revenue from the sale of electricity was derived from residential customers, 44.1 percent from commercial customers, 10.4 percent from industrial customers and 0.1 percent from others. The 20 largest customers of Narragansett accounted for approximately 0.0975 percent of its electric revenue.

STUDY PROCEDURE

INTRODUCTION

The purpose of a depreciation study is to analyze the mortality characteristics, net salvage rates and adequacy of depreciation accruals and recorded depreciation reserves for each rate category. This study provides the foundation and documentation for recommended changes in the depreciation rates used by NEC for transmission, distribution and general plant categories. The proposed rates are subject to approval by the Rhode Island Public Utilities Commission (PUC).

SCOPE

The steps involved in conducting a depreciation study can be grouped into five major tasks:

- Data Collection;
- Life Analysis and Estimation;
- Net Salvage Analysis;
- Depreciation Reserve Analysis; and
- Development of Accrual Rates.

The scope of the NEC 2009 study included a consideration of each of these tasks as described below.

DATA COLLECTION

The minimum database required to conduct a statistical life study consists of a history of vintage year additions and unaged activity–year retirements, transfers and adjustments. These data must be appropriately adjusted for transfers, sales and other plant activity that would otherwise bias the measured service life of normal retirements. The age distribution of surviving plant for unaged data can be estimated by distributing plant in service at the beginning of the study year to prior vintages in proportion to the theoretical amount surviving from a projection or survivor curve identified in the life study. The statistical methods of life analysis used to examine unaged plant data are known as *semi–actuarial techniques.*

A far more extensive database is required to apply statistical methods of life analysis known as *actuarial techniques.* Plant data used in an actuarial life study most often include age distributions of surviving plant at the beginning of a study year and the vintage year, activity year, and dollar amounts associated with normal retirements, reimbursed retirements, sales, abnormal retirements, transfers, corrections, and extraordinary adjustments over a series of prior activity years. An actuarial database may include age distributions of surviving plant at the beginning of the earliest activity year, rather than at the beginning of the study year. Plant additions, however, must be included in a database containing an opening age distribution to derive aged survivors at the beginning of the study year. All activity year

transactions with vintage year identification are coded and stored in a database. These data are processed by a computer program and transaction summary reports are created in a format reconcilable to official plant records. The availability of such detailed information is dependent upon an accounting system that supports aged property records. The Continuing Property Record (CPR) system used by NEC provides aged transactions for all plant accounts.

The database used in conducting the 2009 study was assembled by appending 1995–2008 plant and reserve activity to the data base used in conducting the 1995 study. Detailed accounting transactions were extracted from the CPR system and assigned transaction codes which describe the nature of the accounting activity. Transaction codes for plant additions, for example, were used to distinguish normal additions from acquisitions, purchases, reimbursements and adjustments. Similar transaction codes were used to distinguish normal retirements from sales, reimbursements, abnormal retirements and adjustments. Transaction codes were also assigned to transfers, capital leases, gross salvage, cost of removal and other accounting activity considered in a depreciation study.

Prior to 1993, NEC estimated the ageing of plant activity for distribution mass plant accounts (Accounts 364.00 through 373.00) using an estimated projection life and curve for each account. Although theoretically sound for accounts in which population parameters are known, in practice this method is somewhat circular. The recorded plant activity is dependent upon the estimated parameters which are themselves developed from the plant activity they generate.

Foster Associates was engaged by NEC in 1993 to develop age distributions for Accounts 364.00 through 373.00 that would be used to initiate a first–in, first–out (FIFO) ageing process. The new age distributions at December 31, 1992 were used to populate the Company's CPR system in September 1993. Minor adjustments were recorded for January – September 1993 activity. The data base used in the current study for these accounts contains opening age distributions at December 31, 1992, and FIFO plant activity for 1993 through 2008. Plant installed prior to 1966 is classified in a 1966 vintage.

The data base used in the 1995 study for all other transmission, distribution, and general plant Accounts 390.00 (Structures and Improvements) and 397.00 (Communication Equipment) was constructed from the Company's CPR system by Company personnel. These plant records provided plant activity over the period 1969 through 1994 and age distributions of surviving plant at December 31, 1994. Age distributions of plant exposed to retirement at the beginning of each activity year were obtained by adding (or subtracting) transaction amounts to the coded age distributions of surviving plant at the end of 1994. Coded age distributions of surviving plant at the end of 1994 were then removed from the data base. This conversion of the data base from a reverse construction of the historical ar-

rangement to a forward construction was made to facilitate appending post–1994 transactions to the data without removing or adjusting prior coded transactions.

The accuracy of the assembled data base for all accounts—except the FIFO mass accounts—was verified over the period 1969–1994 in the 1995 study by comparing the unadjusted plant history schedules derived in the study with the Company's ledger reports. The mass accounts were reconciled for post–1993 activity reflecting the FIFO ageing process.

The accuracy and completeness of the database used in conducting the 2009 study was confirmed by Foster Associates for activity years 1995–2008 by comparing additions, retirements, transfers, adjustments and ending plant balance to the regulated investments reported by NEC in FERC Form 1 electric plant in service reports. Age distributions of surviving plant at December 31, 2008 were reconciled to the CPR.

LIFE ANALYSIS AND ESTIMATION

Life analysis and life estimation are terms used to describe a two–step procedure for estimating the mortality characteristics of a plant category. The first step (*i.e.*, life analysis) is largely mechanical and primarily concerned with history. Statistical techniques are used in this step to obtain a mathematical description of the forces of retirement acting upon a plant category and an estimate of the *projection life* of the account. The mathematical expressions used to describe these life characteristics are known as *survival functions* or *survivor curves*.

The second step (*i.e.*, life estimation) is concerned with predicting the expected remaining life of property units still exposed to forces of retirement. It is a process of blending the results of a life analysis with informed judgment (including expectations about the future) to obtain an appropriate projection life and curve descriptive of the parent population from which a plant account is viewed as a random sample. The amount of weight given to a life analysis will depend upon the extent to which past retirement experience is considered descriptive of the future.

The analytical methods used in a life analysis are broadly classified as actuarial and semi–actuarial techniques. Actuarial techniques can be applied to plant accounting records that reveal the age of a plant asset at the time of its retirement from service. Stated differently, each property unit must be identifiable by date of installation and age at retirement. Semi–actuarial techniques can be used to derive service life and dispersion estimates when age identification of retirements is not maintained or readily available. Age identification of retirements was available for all plant accounts included in the 2009 NEC depreciation study.

An actuarial life analysis program designed and developed by Foster Associ-

ates was used in this study. The first step in an actuarial analysis involves a systematic treatment of the available data for the purpose of constructing an observed life table. A complete life table contains the life history of a group of property units installed during the same accounting period and various probability relationships derived from the data. A life table is arranged by age–intervals (usually defined as one year) and shows the number of units (or dollars) entering and leaving each age–interval and probability relationships associated with this activity. A life table minimally shows the age of each survivor and the age of each retirement from a group of units installed in a given accounting year.

A life table can be constructed in any one of at least five methods. The annual–rate or retirement–rate method was used in this study. The mechanics of the annual–rate method require the calculation of a series of ratios obtained by dividing the number of units (or dollars) surviving at the beginning of an age interval into the number of units (or dollars) retired during the same interval. This ratio—called a "retirement ratio" is an estimator of the hazard rate or conditional probability of retirement during an age interval. The cumulative proportion surviving is obtained by multiplying the retirement ratio for each age interval by the proportion of the original group surviving at the beginning of that age interval and subtracting this product from the proportion surviving at the beginning of the same interval. The annual–rate method is applied to multiple groups or vintages by combining the retirements and/or survivors of like ages for each vintage included in the analysis.

The second step in an actuarial analysis involves graduating or smoothing the observed life table and fitting the smoothed series to a family of survival functions. The functions used in this study are the Iowa–type curves which are mathematically described by the Pearson frequency curve family. The observed life table was smoothed by a weighted least–squares procedure in which first, second and third degree orthogonal polynomials were fitted to the observed retirement ratios. The resulting function can be expressed as a survivorship function which is numerically integrated to obtain an estimate of the projection life. The smoothed survivorship function is then fitted by a weighted least–squares procedure to the Iowa–curve family to obtain a mathematical description or classification of the dispersion characteristics of the data.

The set of computer programs used in this analysis provides multiple rolling–band, shrinking–band and progressive–band analyses of an account. Observation bands are defined in terms of a "retirement era" that restricts the analysis to the retirement activity of all vintages represented by survivors at the beginning of a selected era. In a rolling–band analysis, a year of retirement experience is added to each successive retirement band and the earliest year from the preceding band is dropped. A shrinking–band analysis begins with the total retirement experience

available and the earliest year from the preceding band is dropped for each successive band. A progressive–band analysis adds a year of retirement activity to a previous band without dropping earlier years from the analysis. Rolling, shrinking and progressive band analyses are used to detect the emergence of trends in the behavior of the dispersion and projection life.

Options available in the Foster Associates actuarial life–analysis program include the width and location of both placement and observation bands; the interval of years included in a selected band analysis; the estimator of the hazard rate (actuarial, conditional proportion retired, or maximum likelihood); the elements to include on the diagonal of a weight matrix (exposures, inverse of age, inverse of variance, or unweighted); and the age at which an observed life table is truncated. The program also provides both tabular and graphics output as an aid in the analysis.

While actuarial and semi–actuarial statistical methods are well suited to an analysis of plant categories containing a large number of homogeneous units (*e.g.*, meters or services), a different application of survivor curves is appropriate for plant categories composed of major items of plant that will most likely be retired as a single unit. Plant retirements from an integrated system prior to the retirement of the entire facility are viewed as interim retirements that will be replaced in order to maintain the integrity of the system. Plant facilities may also be added to an existing system (*i.e.*, interim additions) to expand or enhance its productive capacity without extending the service life of the existing system. A proper depreciation rate can be developed for an integrated system using a life–span method. All plant accounts were treated as full mortality categories in the NEC study.

NET SALVAGE ANALYSIS

Depreciation rates designed to achieve the goals and objectives of depreciation accounting will include a parameter for future net salvage and a variable for average net salvage reflecting both realized and future net salvage rates.

Estimates of net salvage rates applicable to future retirements are most often derived from an analysis of gross salvage and cost of removal realized in the past. An analysis of past experience (including an examination of trends over time) provides an initial basis for estimating future salvage and cost of removal. However, consideration should also be given to events that may cause deviations from net salvage realized in the past. Among the factors that should be considered are the age of plant retirements; the portion of retirements likely to be reused; changes in the method of removing plant; the type of plant to be retired in the future; inflation expectations; the shape of the projection life curve; and economic conditions that may warrant greater or lesser weight to be given to net salvage rates observed in the past.

Average net salvage rates for an account or plant function are derived from a direct dollar weighting of a) historical retirements with historical (or realized) net salvage rates and b) future retirements *(i.e.*, surviving plant) with estimated future net salvage rates. Average net salvage rates will change, therefore, as additional years of retirement and net salvage activity become available and as subsequent plant additions modify the weighting of future net salvage estimates. The computation of estimated average net salvage rates is shown in Statement D.

Special consideration should also be given to the treatment of insurance proceeds and other forms of third–party reimbursements credited to the depreciation reserve. A properly conducted net salvage study will exclude such activity from the estimate of future parameters and include the activity in the computation of realized and average net salvage rates. Third–party reimbursements are not distinguishable from salvage proceeds in NEC reserve records.

A five–year average analysis of the ratio of realized salvage and cost of removal to associated retirements was used in the 2009 study for all depreciable categories to: a) estimate realized net salvage rates; b) detect the emergence of historical trends; and c) establish a basis for estimating future net salvage rates. The banding analysis produced inconclusive indications of future net salvage ratios for reasons outlined below.

Prior to the 1995 study, depreciation rates used by NEC did not include a net salvage component; a net salvage rate of zero percent was implied for all plant accounts. While the 1995 study included a consideration of net salvage, accrual rates and reserves were developed at the function level for net salvage and by primary account for investment accruals. Upon implementation, NEC combined the function net salvage rates with in the investment rate for each primary account and continued to record depreciation accruals and realized net savage in function level reserves.

In 2004 NEC migrated to a plant accounting system supported by Power Plant. Function reserves were disaggregated in the conversion process to initialize reserves by primary account. Accordingly, the earliest activity year in which realized net salvage is identifiable by primary account is 2004. This limited history (combined with significant variability in realized net salvage as a percent of retirements) necessitated an examination of how net salvage is charged to work orders and a back–casting of current practices to prior activity years.

Net salvage is generally allocated to retirement work orders by applying appropriate ratios to associated capital additions. Statement E provides a computation of the composite ratio applied to primary distribution account additions over the period 2004–2008. The resulting ratios were applied to the sum of all additions over the period 1969–2008 for actual aged accounts and over the period

1993–2008 for FIFO aged accounts. The implied net salvage derived from this computation was expressed as a ratio to the sum of retirements recorded over the corresponding period of additions to obtain an estimate of future net salvage rates. A composite future net salvage rate of –30 percent was selected as a placeholder for all distribution accounts pending the realization of additional activity years from which net salvage rates among primary accounts may be distinguished.[1]

DEPRECIATION RESERVE ANALYSIS

The purpose of a depreciation reserve analysis is to compare the current level of recorded reserves with the level required to achieve the goals or objectives of depreciation accounting if the amount and timing of future retirements and net salvage are realized as predicted. The difference between a required (or theoretical) depreciation reserve and a recorded reserve provides a measurement of the expected excess or shortfall that will remain in the depreciation reserve if corrective action is not taken to eliminate the reserve imbalance.

Unlike a recorded reserve which represents the net amount of depreciation expense charged to previous periods of operations, a theoretical reserve is a measure of the implied reserve requirement at the beginning of a study year if the timing of future retirements and net salvage is in exact conformance with a survivor curve chosen to predict the probable life of property still exposed to the forces of retirement. Stated differently, a theoretical depreciation reserve is the difference between the recorded cost of plant presently in service and the sum of depreciation expense and net salvage that will be charged in the future if retirements are distributed over time according to a specified retirement frequency distribution.

The survivor curve used in the calculation of a theoretical depreciation reserve is intended to describe forces of retirement that will be operative in the future. However, retirements caused by forces such as accidents, physical deterioration and changing technology seldom, if ever, remain stable over time. It is unlikely, therefore, that a probability or retirement frequency distribution can be identified that will accurately describe the age of plant retirements over the complete life cycle of multiple vintages. It is for this reason that depreciation rates should be reviewed periodically and adjusted for observed or expected changes in the parameters chosen to describe the underlying forces of mortality.

Although reserve records are commonly maintained by various account classifications, the total utility reserve in relation to the sum of account computed reserves is the most important indicator of the adequacy (or inadequacy) of recorded reserves. If statistical life studies have not been conducted or retirement dispersion

[1] A similar analysis of transmission accounts yielded unrealistic results as a consequence of insufficient data. The current approved future net salvage of –20 percent was retained for all transmission accounts.

has been overlooked in setting depreciation rates, it is likely that some accounts will be over–depreciated and other accounts will be under–depreciated relative to a calculated theoretical reserve. Differences between a theoretical reserve and a recorded reserve also will arise as a normal occurrence when service lives, dispersion patterns and net salvage estimates are adjusted in the course of depreciation reviews. It is appropriate, therefore, and consistent with group depreciation theory to periodically redistribute or rebalance recorded reserves among the various primary accounts based upon the most recent estimates of retirement dispersion and net salvage rates.

A redistribution of recorded reserves is considered appropriate for NEC at this time. Offsetting reserve imbalances attributable to both the passage of time and parameter adjustments recommended in the current study should be realigned among primary accounts to reduce offsetting imbalances and increase depreciation rate stability. Recorded reserves should also be realigned to establish reserves for subaccounts created subsequent to the adoption of current depreciation rates.

Recorded reserves for transmission and distribution plant accounts were rebalanced by multiplying the calculated reserve for each primary account within a function by the ratio of the function total recorded reserves to the function total calculated reserve. The sum of the redistributed reserves within a function is, therefore, equal to the function total recorded depreciation reserve before the redistribution. Reserves for general amortizable categories were adjusted by replacing recorded reserves with current measured theoretical reserves and distributing any reserve imbalances to depreciable categories within the general plant function.

Statement C provides a comparison of recorded, computed and redistributed reserves at December 31, 2008. The recorded reserve was $552,926,186 or 40.6 percent of the depreciable plant investment. The corresponding computed reserve is $529,418,359 or 38.9 percent of the depreciable plant investment. A proportionate amount of the measured reserve imbalance of $23,507,827 will be amortized over the composite weighted–average remaining life of each rate category using the remaining life depreciation rates proposed in this study.

Development of Accrual Rates

The goal or objective of depreciation accounting is cost allocation over the economic life of an asset in proportion to the consumption of service potential. Ideally, the cost of an asset—which represents the cost of obtaining a bundle of service units—should be allocated to future periods of operation in proportion to the amount of service potential expended during an accounting interval. The service potential of an asset is the present value of future net revenue (*i.e.*, revenue less expenses exclusive of depreciation and other non–cash expenses) or cash inflows attributable to the use of that asset alone.

Cost allocation in proportion to the consumption of service potential is often approximated by the use of depreciation methods employing time rather than net revenue as the apportionment base. Examples of time–based methods include sinking–fund, straight–line, declining balance, and sum–of–the–years' digits. The advantage of a time–based method is that it does not require an estimate of the remaining amount of service potential an asset will provide or the amount of potential actually consumed during an accounting interval. Using a time–based allocation method, however, does not change the goal of depreciation accounting. If it is predictable that the net revenue pattern of an asset will either decrease or increase over time, then an accelerated or decelerated time–based method should be used to approximate the rate at which service potential is actually consumed.

The time period over which the cost of an asset will be allocated to operations is determined by the combination of a procedure and a technique. A depreciation procedure describes the level of grouping or sub–grouping of assets within a plant category. The broad group, vintage group, equal–life group, and item (or unit) are a few of the more widely used procedures. A depreciation technique describes the life statistic used in a depreciation system. Whole–life and remaining–life (or expectancy) are the most common techniques.

Depreciation rates recommended in the 2009 study were developed using a system composed of the straight–line method, vintage group procedure, remaining–life technique. This formulation of the accrual rate is equivalent to a straight–line method, vintage group procedure, whole–life technique with amortization of reserve imbalances over the estimated composite remaining life of each rate category. It is the opinion of Foster Associates that this currently approved system will remain appropriate for NEC, provided depreciation studies are conducted periodically and parameters are routinely adjusted to reflect changing operating conditions.

It is also the opinion of Foster Associates that amortization accounting is consistent with the goals and objectives of depreciation accounting and remains appropriate for the approved amortization categories. The treatment of amortization accounts in the current study was designed to produce 2009 annualized accruals equivalent to applying a rate equal to the reciprocal of an amortization period to plant balances after retirements have been recorded. Accrual rates contained in Statement A have been applied to plant balances containing vintages that will be retired in 2009. Accrual rates equal to the reciprocal of the amortization period will be applied to these categories after plant balances have been reduced by all vintages that have achieved an age equal to the amortization period.

STATEMENTS

INTRODUCTION

This section provides a comparative summary of depreciation rates, annual depreciation accruals, recorded and computed depreciation reserves, and current and proposed service life and net salvage parameters recommended for NEC plant and equipment categories. The content of these statements is briefly described below.

- Statement A provides a comparative summary of current and proposed annual depreciation rates using the vintage group procedure, remaining–life technique.
- Statement B provides a comparison of current and proposed annualized 2009 depreciation accruals derived from the depreciation rates contained in Statement A.
- Statement C provides a comparison of recorded, computed and redistributed reserves for each rate category at December 31, 2008.
- Statement D provides a summary of the components used to obtain weighted average net salvage rates.
- Statement E provides an analysis of future net salvage rates for distribution plant accounts.
- Statement F provides a comparative summary of current and proposed parameters and statistics including projection life, projection curve, average service life, average remaining life, and average and future net salvage rates.

Current depreciation accruals shown on Statement B are the product of the plant investment (Column B) and current depreciation rates shown on Statement A. These are the effective rates used by NEC for the mix of investments recorded at December 31, 2008. Similarly, proposed depreciation accruals shown on Statements B are the product of the plant investment and proposed depreciation rates shown on Statement A. Proposed remaining life accrual rates (Statement A) are given by:

$$\text{Accrual Rate} = \frac{1.0 - \text{Reserve Ratio} - \text{Future Net Salvage Rate}}{\text{Remaining Life}}.$$

This formulation of a remaining–life accrual rate is equivalent to

$$\text{Accrual Rate} = \frac{1.0 - \text{Average Net Salvage}}{\text{Average Life}} + \frac{\text{Computed Reserve} - \text{Recorded Reserve}}{\text{Remaining Life}}$$

where Average Net Salvage, Computed Reserve and Recorded Reserve are expressed in percent.

THE NARRAGANSETT ELECTRIC COMPANY Statement A

Component Accrual Rates
Current: VG Procedure / RL Technique
Proposed: VG Procedure / RL Technique

Account Description	Current Rem. Life	Current Future Salvage	Current Accrual Rate	Proposed Investment	Proposed Net Salvage	Proposed Total Rate
A	B	C	D	E	H	I=G+H
TRANSMISSION PLANT						
352.00 Structures and Improvements	21.84	-20.0%	1.65%	1.16%	0.25%	1.41%
353.00 Station Equipment	42.70	-20.0%	1.99%	1.57%	0.33%	1.90%
354.00 Towers and Fixtures	24.74	-20.0%	1.95%	-0.01%	0.01%	
355.00 Poles and Fixtures	30.60	-20.0%	2.40%	2.07%	0.53%	2.60%
356.00 Overhead Conductors and Devices	27.21	-20.0%	2.64%	1.83%	0.46%	2.29%
357.00 Underground Conduit	28.71	-20.0%	2.07%	1.79%	0.36%	2.15%
358.00 Underground Conductors and Devices	29.40	-20.0%	2.67%	2.00%	0.47%	2.47%
359.00 Roads and Trails	33.51	-20.0%	1.78%	0.96%	0.19%	1.15%
Total Transmission Plant			2.29%	1.79%	0.42%	2.20%
DISTRIBUTION PLANT						
361.00 Structures and Improvements	12.02	-10.0%	2.10%	1.47%	0.80%	2.27%
362.00 Station Equipment	25.16	-10.0%	2.97%	1.52%	0.45%	1.97%
364.00 Poles, Towers and Fixtures	19.53	-10.0%	4.17%	2.58%	1.00%	3.58%
365.00 Overhead Conductors and Devices	23.51	-10.0%	3.28%	2.44%	0.76%	3.20%
366.00 Underground Conduit	45.29	-10.0%	2.05%	1.66%	0.22%	1.88%
367.10 Underground Conductors and Devices	38.12	-10.0%	2.58%	2.64%	0.79%	3.43%
368.00 Line Transformers	15.23	-10.0%	4.44%			
368.10 Line Transformer Stations	15.23	-10.0%	4.44%	2.91%	0.87%	3.78%
368.20 Line Transformers - Bare Cost	15.23	-10.0%	4.44%	3.07%	0.94%	4.01%
368.30 Line Transformers - Install Cost	15.23	-10.0%	4.44%	3.10%	0.95%	4.05%
369.00 Services	11.78	-10.0%	4.26%			
369.10 Overhead Services	11.78	-10.0%	4.26%	2.45%	0.99%	3.44%
369.22 Underground Services	11.78	-10.0%	4.26%	2.43%	0.77%	3.20%
370.00 Meters	20.98	-10.0%	3.78%			
370.10 Meters - Bare Cost - Domestic	20.98	-10.0%	3.78%	4.04%	1.15%	5.19%
370.20 Meters - Install Cost - Domestic	20.98	-10.0%	3.78%	4.12%	1.17%	5.29%
370.30 Large Meters - Bare Cost	20.98	-10.0%	3.78%	4.06%	1.20%	5.26%
370.35 Large Meters - Install Cost	20.98	-10.0%	3.78%	3.77%	1.13%	4.90%
371.00 Installations on Customers' Premises	14.12	-10.0%	1.97%	2.86%	0.82%	3.68%
373.00 Street Lighting and Signal Systems	14.90	-10.0%	4.62%			
373.10 OH Street Lighting and Signal Systems	14.90	-10.0%	4.62%	4.34%	1.30%	5.64%
373.20 UG Street Lighting and Signal Systems	14.90	-10.0%	4.62%	4.33%	1.32%	5.65%
Total Distribution Plant			3.53%	2.55%	0.81%	3.35%
GENERAL PLANT						
Depreciable						
390.00 Structures and Improvements	32.61	-5.0%	2.82%	2.05%	0.19%	2.24%
397.10 Communication Equipment - Site Specific	11.14		5.00%	4.44%	0.22%	4.66%
Total Depreciable			3.40%	2.68%	0.20%	2.88%
Amortizable						
391.00 Office Furniture and Equipment	8.04		5.00%	← 15 Year Amortization →		1.37%
393.00 Stores Equipment	12.38		5.00%	← 15 Year Amortization →		2.67%
394.00 Tools, Shop and Garage Equipment	10.57		5.00%	← 15 Year Amortization →		4.97%
395.00 Laboratory Equipment	12.55		5.00%	← 15 Year Amortization →		4.26%
397.00 Communication Equipment	11.14		5.00%	← 15 Year Amortization →		6.67%
398.00 Miscellaneous Equipment	12.12		5.00%	← 15 Year Amortization →		2.87%
Total Amortizable			5.00%	5.99%		5.99%
Total General Plant			4.07%	4.08%	0.11%	4.19%
TOTAL ELECTRIC OPERATIONS			3.34%	2.48%	0.71%	3.20%

THE NARRAGANSETT ELECTRIC COMPANY

Statement B

Component Accruals
Current: VG Procedure / RL Technique
Proposed: VG Procedure / RL Technique

Account Description	12/31/08 Plant Investment	Current	Proposed 2009 Annualized Accrual Investment	Net Salvage	Total	Difference
A	B	C	D	E	F=D+E	I=F-C
TRANSMISSION PLANT						
352.00 Structures and Improvements	$ 3,457,911	$ 57,056	$ 40,112	$ 8,645	$ 48,757	$ (8,299)
353.00 Station Equipment	91,199,973	1,814,879	1,431,840	300,960	1,732,800	(82,079)
354.00 Towers and Fixtures	1,350,940	26,343	(135)	135		(26,343)
355.00 Poles and Fixtures	59,308,506	1,423,404	1,227,686	314,335	1,542,021	118,617
356.00 Overhead Conductors and Devices	40,753,341	1,075,888	745,786	187,465	933,251	(142,637)
357.00 Underground Conduit	4,830,086	99,983	86,459	17,388	103,847	3,864
358.00 Underground Conductors and Devices	27,194,077	726,082	543,882	127,812	671,694	(54,388)
359.00 Roads and Trails	492,182	8,761	4,725	935	5,660	(3,101)
Total Transmission Plant	$ 228,587,016	$ 5,232,396	$ 4,080,355	$ 957,675	$ 5,038,030	$ (194,366)
DISTRIBUTION PLANT						
361.00 Structures and Improvements	$ 6,272,627	$ 131,725	$ 92,208	$ 50,181	$ 142,389	$ 10,664
362.00 Station Equipment	155,660,801	4,623,126	2,366,044	700,474	3,066,518	(1,556,608)
364.00 Poles, Towers and Fixtures	172,167,037	7,179,365	4,441,910	1,721,670	6,163,580	(1,015,785)
365.00 Overhead Conductors and Devices	243,191,934	7,976,695	5,933,883	1,848,259	7,782,142	(194,553)
366.00 Underground Conduit	61,110,729	1,252,770	1,014,438	134,444	1,148,882	(103,888)
367.10 Underground Conductors and Devices	123,614,245	3,189,248	3,263,416	976,553	4,239,969	1,050,721
368.00 Line Transformers						
368.10 Line Transformer Stations	10,207,310	453,205	297,033	88,804	385,837	(67,368)
368.20 Line Transformers - Bare Cost	81,634,508	3,624,572	2,506,179	767,364	3,273,543	(351,029)
368.30 Line Transformers - Install Cost	55,254,569	2,453,303	1,712,892	524,918	2,237,810	(215,493)
369.00 Services						
369.10 Overhead Services	59,276,819	2,525,192	1,452,282	586,841	2,039,123	(486,069)
369.22 Underground Services	9,210,037	392,348	223,804	70,917	294,721	(97,627)
370.00 Meters						
370.10 Meters - Bare Cost - Domestic	22,541,337	852,063	910,670	259,225	1,169,895	317,832
370.20 Meters - Install Cost - Domestic	6,653,964	251,520	274,143	77,851	351,994	100,474
370.30 Large Meters - Bare Cost	10,154,885	383,855	412,288	121,859	534,147	150,292
370.35 Large Meters - Install Cost	9,094,453	343,770	342,861	102,767	445,628	101,858

THE NARRAGANSETT ELECTRIC COMPANY

Statement B

Component Accruals
Current: VG Procedure / RL Technique
Proposed: VG Procedure / RL Technique

Account Description	12/31/08 Plant Investment	Current	Proposed 2009 Annualized Accrual Investment	Net Salvage	Total	Difference
A	B	C	D	E	F=D+E	I=F-C
371.00 Installations on Customers' Premises	71,631	1,411	2,049	587	2,636	1,225
373.00 Street Lighting and Signal Systems						
373.10 OH Street Lighting and Signal Systems	34,618,321	1,599,366	1,502,435	450,038	1,952,473	353,107
373.20 UG Street Lighting and Signal Systems	15,122,980	698,682	654,825	199,623	854,448	155,766
Total Distribution Plant	$ 1,075,858,187	$ 37,932,216	$ 27,403,360	$ 8,682,375	$ 36,085,735	$ (1,846,481)
GENERAL PLANT						
Depreciable						
390.00 Structures and Improvements	$ 24,115,021	$ 680,044	$ 494,358	$ 45,819	$ 540,177	$ (139,867)
397.10 Communication Equipment - Site Specific	8,653,462	432,673	384,214	19,038	403,252	(29,421)
Total Depreciable	$ 32,768,483	$ 1,112,717	$ 878,572	$ 64,857	$ 943,429	$ (169,288)
Amortizable						
391.00 Office Furniture and Equipment	$ 880,017	$ 44,001	$ 12,056	$ -	$ 12,056	$ (31,945)
393.00 Stores Equipment	465,721	23,286	12,435		12,435	(10,851)
394.00 Tools, Shop and Garage Equipment	2,744,432	137,222	136,398		136,398	(824)
395.00 Laboratory Equipment	1,952,521	97,626	83,177		83,177	(14,449)
397.00 Communication Equipment	17,759,267	887,963	1,184,543		1,184,543	296,580
398.00 Miscellaneous Equipment	125,496	6,275	3,602		3,602	(2,673)
Total Amortizable	$ 23,927,454	$ 1,196,373	$ 1,432,211	$ -	$ 1,432,211	$ 235,838
Total General Plant	$ 56,695,937	$ 2,309,090	$ 2,310,783	$ 64,857	$ 2,375,640	$ 66,550
TOTAL ELECTRIC OPERATIONS	$ 1,361,141,140	$ 45,473,702	$ 33,794,498	$ 9,704,907	$ 43,499,405	$ (1,974,297)

THE NARRAGANSETT ELECTRIC COMPANY

Statement C

Depreciation Reserve Summary
Vintage Group Procedure
December 31, 2008

Account Description	Plant Investment	Recorded Reserve Amount	Recorded Reserve Ratio	Computed Reserve Amount	Computed Reserve Ratio	Redistributed Reserve Amount	Redistributed Reserve Ratio
A	B	C	D=C/B	E	F=E/B	G	H=G/B
TRANSMISSION PLANT							
352.00 Structures and Improvements	$ 3,457,911	$ 2,723,750	78.77%	$ 2,526,824	73.07%	$ 3,040,197	87.92%
353.00 Station Equipment	91,199,973	23,338,157	25.59%	21,289,743	23.34%	25,615,160	28.09%
354.00 Towers and Fixtures	1,350,940	1,361,887	100.81%	1,346,835	99.70%	1,620,471	119.95%
355.00 Poles and Fixtures	59,308,506	17,002,216	28.67%	15,088,722	25.44%	18,154,283	30.61%
356.00 Overhead Conductors and Devices	40,753,341	17,907,988	43.94%	12,379,367	30.38%	14,894,470	36.55%
357.00 Underground Conduit	4,830,086	2,104,294	43.57%	1,931,787	39.99%	2,324,266	48.12%
358.00 Underground Conductors and Devices	27,194,077	13,126,844	48.27%	9,888,357	36.36%	11,897,365	43.75%
359.00 Roads and Trails	492,182	456,483	92.75%	395,131	80.28%	475,409	96.59%
Total Transmission Plant	$ 228,587,016	$ 78,021,620	34.13%	$ 64,846,767	28.37%	$ 78,021,620	34.13%
DISTRIBUTION PLANT							
361.00 Structures and Improvements	$ 6,272,627	$ 2,524,505	40.25%	$ 3,762,115	59.98%	$ 3,861,308	61.56%
362.00 Station Equipment	155,660,801	54,265,999	34.86%	37,413,976	24.04%	38,400,438	24.67%
364.00 Poles, Towers and Fixtures	172,167,037	70,693,489	41.06%	66,253,068	38.48%	67,999,905	39.50%
365.00 Overhead Conductors and Devices	243,191,934	104,912,861	43.14%	90,787,039	37.33%	93,180,742	38.32%
366.00 Underground Conduit	61,110,729	20,967,272	34.31%	29,705,216	48.61%	30,488,428	49.89%
367.10 Underground Conductors and Devices	123,614,245	22,508,953	18.21%	44,513,143	36.01%	45,686,783	36.96%
368.00 Line Transformers		80,911,248					
368.10 Line Transformer Stations	10,207,310			7,000,259	68.58%	7,184,829	70.39%
368.20 Line Transformers - Bare Cost	81,634,508			39,544,682	48.44%	40,587,322	49.72%
368.30 Line Transformers - Install Cost	55,254,569			24,600,628	44.52%	25,249,251	45.70%
369.00 Services		43,683,484					
369.10 Overhead Services	59,276,819			27,450,091	46.31%	28,173,844	47.53%
369.22 Underground Services	9,210,037			4,284,671	46.52%	4,397,642	47.75%
370.00 Meters		19,267,557					
370.10 Meters - Bare Cost - Domestic	22,541,337			13,403,576	59.46%	13,756,977	61.03%
370.20 Meters - Install Cost - Domestic	6,653,964			3,070,268	46.14%	3,151,219	47.36%
370.30 Large Meters - Bare Cost	10,154,885			5,740,575	56.53%	5,891,932	58.02%
370.35 Large Meters - Install Cost	9,094,453			7,201,534	79.19%	7,391,410	81.27%
371.00 Installations on Customers' Premises	71,631	895	1.25%	1,993	2.78%	2,046	2.86%
373.00 Street Lighting and Signal Systems		30,487,304					
373.10 OH Street Lighting and Signal Systems	34,618,321			24,319,200	70.25%	24,960,403	72.10%
373.20 UG Street Lighting and Signal Systems	15,122,980			9,605,821	63.52%	9,859,090	65.19%
Total Distribution Plant	$ 1,075,858,187	$ 450,223,567	41.85%	$ 438,657,854	40.77%	$ 450,223,567	41.85%

THE NARRAGANSETT ELECTRIC COMPANY

Statement C

Depreciation Reserve Summary
Vintage Group Procedure
December 31, 2008

Account Description	Plant Investment	Recorded Reserve Amount	Recorded Reserve Ratio	Computed Reserve Amount	Computed Reserve Ratio	Redistributed Reserve Amount	Redistributed Reserve Ratio
A	B	C	D=C/B	E	F=E/B	G	H=G/B
GENERAL PLANT							
Depreciable							
390.00 Structures and Improvements	$ 24,115,021	$ 7,817,016	32.42%	$ 6,773,476	28.09%	$ 6,046,544	25.07%
397.10 Communication Equipment - Site Specific	8,653,462			4,713,071	54.46%	4,207,263	48.62%
Total Depreciable	$ 32,768,483	$ 7,817,016	23.86%	$ 11,486,546	35.05%	$ 10,253,807	31.29%
Amortizable							
391.00 Office Furniture and Equipment	$ 880,017	$ 770,703	87.58%	$ 854,476	97.10%	$ 854,476	97.10%
393.00 Stores Equipment	465,721	344,869	74.05%	413,472	88.78%	413,472	88.78%
394.00 Tools, Shop and Garage Equipment	2,744,432	1,424,308	51.90%	1,988,664	72.46%	1,988,664	72.46%
395.00 Laboratory Equipment	1,952,521	1,093,384	56.00%	1,334,671	68.36%	1,334,671	68.36%
397.00 Communication Equipment	17,759,267	13,130,060	73.93%	9,719,849	54.73%	9,719,849	54.73%
398.00 Miscellaneous Equipment	125,496	100,659	80.21%	116,060	92.48%	116,060	92.48%
Total Amortizable	$ 23,927,454	$ 16,863,983	70.48%	$ 14,427,192	60.30%	$ 14,427,192	60.30%
Total General Plant	$ 56,695,937	$ 24,680,999	43.53%	$ 25,913,738	45.71%	$ 24,680,999	43.53%
TOTAL ELECTRIC OPERATIONS	$ 1,361,141,140	$ 552,926,186	40.62%	$ 529,418,359	38.90%	$ 552,926,186	40.62%

THE NARRAGANSETT ELECTRIC COMPANY
Average Net Salvage

Statement D

Account Description	Plant Investment			Salvage Rate		Net Salvage			Average
	Additions	Retirements	Survivors	Realized	Future	Realized	Future	Total	Rate
A	B	C	D=B-C	E	F	G=E*C	H=F*D	I=G+H	J=I/B
TRANSMISSION PLANT									
352.00 Structures and Improvements	$ 3,523,417	$ 65,506	$ 3,457,911	-56.2%	-20.0%	$ (36,814)	$ (691,582)	$ (728,397)	-20.7%
353.00 Station Equipment	98,226,409	7,026,436	91,199,973	-33.7%	-20.0%	(2,367,909)	(18,239,995)	(20,607,904)	-21.0%
354.00 Towers and Fixtures	1,562,622	211,682	1,350,940	-30.7%	-20.0%	(64,986)	(270,188)	(335,174)	-21.4%
355.00 Poles and Fixtures	63,810,483	4,501,977	59,308,506	-78.4%	-20.0%	(3,529,550)	(11,861,701)	(15,391,251)	-24.1%
356.00 Overhead Conductors and Devices	43,322,186	2,568,845	40,753,341	-89.0%	-20.0%	(2,286,272)	(8,150,668)	(10,436,940)	-24.1%
357.00 Underground Conduit	4,848,046	17,960	4,830,086		-20.0%		(966,017)	(966,017)	-19.9%
358.00 Underground Conductors and Devices	28,006,510	812,433	27,194,077	-125.0%	-20.0%	(1,015,541)	(5,438,815)	(6,454,357)	-23.0%
359.00 Roads and Trails	496,442	4,260	492,182		-20.0%		(98,436)	(98,436)	-19.8%
Total Transmission Plant	$ 243,796,115	$ 15,209,099	$ 228,587,016	-61.2%	-20.0%	$ (9,301,073)	$ (45,717,403)	$ (55,018,476)	-22.6%
DISTRIBUTION PLANT									
361.00 Structures and Improvements	$ 6,716,256	$ 443,629	$ 6,272,627	-373.0%	-30.0%	$ (1,654,736)	$ (1,881,788)	$ (3,536,524)	-52.7%
362.00 Station Equipment	175,916,122	20,255,321	155,660,801	-24.5%	-30.0%	(4,962,554)	(46,698,240)	(51,660,794)	-29.4%
364.00 Poles, Towers and Fixtures	184,165,216	11,998,179	172,167,037	-155.4%	-30.0%	(18,645,170)	(51,650,111)	(70,295,281)	-38.2%
365.00 Overhead Conductors and Devices	272,231,001	29,039,067	243,191,934	-40.3%	-30.0%	(11,702,744)	(72,957,580)	(84,660,324)	-31.1%
366.00 Underground Conduit	62,715,080	1,604,351	61,110,729	588.4%	-30.0%	9,440,001	(18,333,219)	(8,893,217)	-14.2%
367.10 Underground Conductors and Devices	138,368,087	14,753,842	123,614,245	-26.5%	-30.0%	(3,909,768)	(37,084,274)	(40,994,042)	-29.6%
368.00 Line Transformers									
368.10 Line Transformer Stations	10,221,898	14,588	10,207,310	-46.5%	-30.0%	(6,783)	(3,062,193)	(3,068,976)	-30.0%
368.20 Line Transformers - Bare Cost	84,561,856	2,927,348	81,634,508	-46.5%	-30.0%	(1,361,217)	(24,490,352)	(25,851,569)	-30.6%
368.30 Line Transformers - Install Cost	57,277,400	2,022,831	55,254,569	-46.5%	-30.0%	(940,616)	(16,576,371)	(17,516,987)	-30.6%
369.00 Services									
369.10 Overhead Services	62,987,283	3,710,464	59,276,819	-196.3%	-30.0%	(7,283,641)	(17,783,046)	(25,066,687)	-39.8%
369.22 Underground Services	9,304,031	93,994	9,210,037	-196.3%	-30.0%	(184,510)	(2,763,011)	(2,947,521)	-31.7%
370.00 Meters									
370.10 Meters - Bare Cost - Domestic	26,737,655	4,196,318	22,541,337	-19.8%	-30.0%	(830,871)	(6,762,401)	(7,593,272)	-28.4%
370.20 Meters - Install Cost - Domestic	7,830,338	1,176,374	6,653,964	-19.8%	-30.0%	(232,922)	(1,996,189)	(2,229,111)	-28.5%
370.30 Large Meters - Bare Cost	10,492,996	338,111	10,154,885	-19.8%	-30.0%	(66,946)	(3,046,466)	(3,113,411)	-29.7%
370.35 Large Meters - Install Cost	9,119,539	25,086	9,094,453	-19.8%	-30.0%	(4,967)	(2,728,336)	(2,733,303)	-30.0%
371.00 Installations on Customers' Premises	74,697	3,066	71,631		-30.0%		(21,489)	(21,489)	-28.8%
373.00 Street Lighting and Signal Systems									
373.10 OH Street Lighting and Signal Systems	35,364,400	746,079	34,618,321	-36.6%	-30.0%	(273,065)	(10,385,496)	(10,658,561)	-30.1%
373.20 UG Street Lighting and Signal Systems	15,932,458	809,478	15,122,980	-36.6%	-30.0%	(296,269)	(4,536,894)	(4,833,163)	-30.3%
Total Distribution Plant	$ 1,170,016,313	$ 94,158,126	$ 1,075,858,187	-45.6%	-30.0%	$ (42,916,778)	$ (322,757,456)	$ (365,674,235)	-31.3%

THE NARRAGANSETT ELECTRIC COMPANY
Average Net Salvage

Statement D

Account Description	Plant Investment			Salvage Rate		Net Salvage			Average
	Additions	Retirements	Survivors	Realized	Future	Realized	Future	Total	Rate
A	B	C	D=B-C	E	F	G=E*C	H=F*D	I=G+H	J=I/B
GENERAL PLANT									
Depreciable									
390.00 Structures and Improvements	$ 27,234,744	$ 3,119,723	$ 24,115,021	-53.3%	-5.0%	$ (1,662,812)	$ (1,205,751)	$ (2,868,563)	-10.5%
397.10 Communication Equipment - Site Specific	8,653,462		8,653,462		-5.0%		(432,673)	(432,673)	-5.0%
Total Depreciable	$ 35,888,206	$ 3,119,723	$ 32,768,483	-53.3%	-5.0%	$ (1,662,812)	$ (1,638,424)	$ (3,301,237)	-9.2%
Amortizable									
391.00 Office Furniture and Equipment	$ 2,052,286	$ 1,172,269	$ 880,017			$ -	$ -	$ -	
393.00 Stores Equipment	803,253	337,532	465,721						
394.00 Tools, Shop and Garage Equipment	4,591,330	1,846,898	2,744,432						
395.00 Laboratory Equipment	2,489,857	537,336	1,952,521						
397.00 Communication Equipment	18,553,893	794,626	17,759,267						
398.00 Miscellaneous Equipment	397,069	271,573	125,496						
Total Amortizable	$ 28,887,688	$ 4,960,234	$ 23,927,454			$ -	$ -	$ -	
Total General Plant	$ 64,775,894	$ 8,079,957	$ 56,695,937	-20.6%	-2.9%	$ (1,662,812)	$ (1,638,424)	$ (3,301,237)	-5.1%
TOTAL ELECTRIC OPERATIONS	$ 1,478,588,322	$117,447,182	$ 1,361,141,140	-45.9%	-27.2%	$ (53,880,664)	$ (370,113,283)	$ (423,993,947)	-28.7%

THE NARRAGANSETT ELECTRIC COMPANY
Future Net Salvage
Distribution Plant

Statement E

Account	2004 - 2008 Additions	2004 - 2008 Net Salvage	2004 - 2008 Pecent	All Additions	Net Salvage	All Retirements	Sf
A	B	C	D=C/B	E	F=D*E	G	H=F/G
36100	$ 1,828,579	$ 1,154,921	63.16%	$ 2,236,547	$ 1,412,592	$ 443,629	318.42%
36200	25,978,614	1,054,503	4.06%	126,198,742	5,122,556	20,255,321	25.29%
36400	35,149,028	4,576,729	13.02%	100,838,884	13,130,157	11,998,180	109.43%
36500	57,128,861	4,689,171	8.21%	144,351,727	11,848,475	29,039,067	40.80%
36600	9,142,992	(995,934)	-10.89%	34,122,522	(3,716,921)	1,604,350	-231.68%
36710	39,930,351	1,829,236	4.58%	81,439,433	3,730,795	14,753,841	25.29%
36800				42,908,519		23,247,701	
36810	(3,468,875)			(3,468,875)		14,587	
36820	24,690,774			24,690,774		2,927,348	
36830	16,497,144			16,497,144		2,022,831	
	37,719,042	2,308,697	6.12%	80,627,561	4,935,030	28,212,468	17.49%
36910	12,995,051			30,734,528		3,710,465	
36922	3,366,476			3,366,476		93,995	
	16,361,527	1,879,983	11.49%	34,101,004	3,918,296	3,804,459	102.99%
37000				19,749,558		15,175,049	
37010	4,972,707			4,972,707		4,196,317	
37020	2,849,386			2,849,386		1,176,374	
37030	1,545,020			1,545,020		338,111	
37035	596,875			596,875		25,087	
	9,963,988	1,137,702	11.42%	29,713,546	3,392,735	20,910,938	16.22%
37100	71,631			71,631		3,066	
37300				23,858,692		27,208,835	
37310	1,399,574			1,399,574		746,079	
37320	5,324,219			5,324,219		809,478	
	6,723,793	569,594	8.47%	30,582,485	2,590,739	28,764,392	9.01%
Total	$ 239,998,406	$ 18,204,602	7.59%	$ 664,284,082	$ 46,364,455	$ 159,789,711	29.02%

THE NARRAGANSETT ELECTRIC COMPANY

Statement F

Current and Proposed Parameters
Vintage Group Procedure

Account Description	Current Parameters						Proposed Parameters (at December 31, 2008)					
	P-Life/ AYFR	Curve Shape	Avg. Life	Rem. Life	Avg. Sal.	Fut. Sal.	P-Life/ AYFR	Curve Shape	VG ASL	Rem. Life	Avg. Sal.	Fut. Sal.
A	B	C	D	E	F	G	H	I	J	K	L	M
TRANSMISSION PLANT												
352.00 Structures and Improvements	50.00	R4	54.65	21.84	-19.5	-20.0	55.00	S4	58.49	22.74	-20.7	-20.0
353.00 Station Equipment	55.00	L0	57.59	42.70	-19.5	-20.0	60.00	L1	60.49	48.32	-21.0	-20.0
354.00 Towers and Fixtures	50.00	R4	50.16	24.74	-19.5	-20.0	50.00	R4	83.23	13.92	-21.4	-20.0
355.00 Poles and Fixtures	45.00	S2	44.77	30.60	-19.5	-20.0	45.00	S2	45.16	34.41	-24.1	-20.0
356.00 Overhead Conductors and Devices	40.00	S1.5	39.96	27.21	-19.5	-20.0	50.00	S1.5	50.43	36.42	-24.1	-20.0
357.00 Underground Conduit	50.00	R4	50.09	28.71	-19.5	-20.0	50.00	R4	50.10	33.43	-19.9	-20.0
358.00 Underground Conductors and Devices	40.00	L2	40.39	29.40	-19.5	-20.0	45.00	L2	45.31	30.81	-23.0	-20.0
359.00 Roads and Trails	60.00	R5	60.00	33.51	-19.5	-20.0	60.00	R5	61.35	20.34	-19.8	-20.0
Total Transmission Plant									51.84	38.77	-22.6	-20.0
DISTRIBUTION PLANT												
361.00 Structures and Improvements	50.00	R4	55.97	12.02	-11.4	-10.0	55.00	R4	65.77	30.16	-52.7	-30.0
362.00 Station Equipment	35.00	SC	38.33	25.16	-11.4	-10.0	65.00	L0.5	65.43	53.58	-29.4	-30.0
364.00 Poles, Towers and Fixtures	25.00	SC	26.23	19.53	-11.4	-10.0	38.00	S2	38.19	25.29	-38.2	-30.0
365.00 Overhead Conductors and Devices	35.00	L4	34.19	23.51	-11.4	-10.0	40.00	L1.5	40.56	28.67	-31.1	-30.0
366.00 Underground Conduit	60.00	S4	59.26	45.29	-11.4	-10.0	60.00	S4	59.73	42.57	-14.2	-30.0
367.10 Underground Conductors and Devices	45.00	L0	45.14	38.12	-11.4	-10.0	37.00	S0.5	37.45	27.16	-29.6	-30.0
368.00 Line Transformers	25.00	S2	24.44	15.23	-11.4	-10.0						
368.10 Line Transformer Stations	25.00	S2	24.44	15.23	-11.4	-10.0	31.00	S1	33.40	15.78	-30.0	-30.0
368.20 Line Transformers - Bare Cost	25.00	S2	24.44	15.23	-11.4	-10.0	31.00	S1	32.09	20.04	-30.6	-30.0
368.30 Line Transformers - Install Cost	25.00	S2	24.44	15.23	-11.4	-10.0	31.00	S1	31.78	20.80	-30.6	-30.0
369.00 Services	25.00	S4	25.42	11.78	-11.4	-10.0						
369.10 Overhead Services	25.00	S4	25.42	11.78	-11.4	-10.0	40.00	S4	40.09	24.00	-39.8	-30.0
369.22 Underground Services	25.00	S4	25.42	11.78	-11.4	-10.0	40.00	S4	40.53	25.69	-31.7	-30.0
370.00 Meters	30.00	R2.5	29.25	20.98	-11.4	-10.0						
370.10 Meters - Bare Cost - Domestic	30.00	R2.5	29.25	20.98	-11.4	-10.0	23.00	R2	24.21	13.30	-28.4	-30.0
370.20 Meters - Install Cost - Domestic	30.00	R2.5	29.25	20.98	-11.4	-10.0	23.00	R2	23.92	15.61	-28.5	-30.0
370.30 Large Meters - Bare Cost	30.00	R2.5	29.25	20.98	-11.4	-10.0	23.00	R2	24.15	13.68	-29.7	-30.0
370.35 Large Meters - Install Cost	30.00	R2.5	29.25	20.98	-11.4	-10.0	23.00	R2	25.43	9.94	-30.0	-30.0

THE NARRAGANSETT ELECTRIC COMPANY

Statement F

Current and Proposed Parameters
Vintage Group Procedure

Account Description	Current Parameters						Proposed Parameters (at December 31, 2008)					
	P-Life/ AYFR	Curve Shape	Avg. Life	Rem. Life	Avg. Sal.	Fut. Sal.	P-Life/ AYFR	Curve Shape	VG ASL	Rem. Life	Avg. Sal.	Fut. Sal.
A	B	C	D	E	F	G	H	I	J	K	L	M
371.00 Installations on Customers' Premises	35.00	L0	60.72	14.12	-11.4	-10.0	35.00	L0	35.00	34.57	-28.8	-30.0
373.00 Street Lighting and Signal Systems	25.00	R3	23.40	14.90	-11.4	-10.0						
373.10 OH Street Lighting and Signal Systems	25.00	R3	23.40	14.90	-11.4	-10.0	20.00	L2	22.34	10.26	-30.1	-30.0
373.20 UG Street Lighting and Signal Systems	25.00	R3	23.40	14.90	-11.4	-10.0	20.00	L2	22.50	11.48	-30.3	-30.0
Total Distribution Plant									38.69	26.34	-31.3	-30.0
GENERAL PLANT												
Depreciable												
390.00 Structures and Improvements	40.00	L0.5	41.91	32.61	-5.5	-5.0	50.00	L1	51.19	35.63	-10.5	-5.0
397.10 Communication Equipment - Site Specific	20.00	SQ	20.00	11.14			25.00	S3	25.12	12.09	-5.0	-5.0
Total Depreciable									40.18	25.69	-9.2	-5.0
Amortizable												
391.00 Office Furniture and Equipment	20.00	SQ	20.00	8.04			15.00	SQ	15.00	2.11		
393.00 Stores Equipment	20.00	SQ	20.00	12.38			15.00	SQ	15.00	4.20		
394.00 Tools, Shop and Garage Equipment	20.00	SQ	20.00	10.57			15.00	SQ	15.00	5.54		
395.00 Laboratory Equipment	20.00	SQ	20.00	12.55			15.00	SQ	15.00	7.43		
397.00 Communication Equipment	20.00	SQ	20.00	11.14			15.00	SQ	15.00	6.79		
398.00 Miscellaneous Equipment	20.00	SQ	20.00	12.12			15.00	SQ	15.00	2.62		
Total Amortizable									15.00	6.45		
Total General Plant									23.52	12.96	-5.1	-2.9
TOTAL ELECTRIC OPERATIONS									39.31	26.99	-28.7	-27.2

ANALYSIS

INTRODUCTION

This section provides an explanation of the supporting schedules developed in the NEC depreciation study to estimate appropriate projection curves, projection lives and net salvage statistics for each rate category. The form and content of the schedules developed for an account depend upon the method of analysis adopted for the category.

This section also includes an example of the supporting schedules developed for Account 367.10 – Underground Conductors and Devices. Documentation for all other plant accounts is contained in the study work papers. Supporting schedules developed in the NEC study include:

Schedule A – Generation Arrangement;

Schedule B – Age Distribution;

Schedule C – Plant History;

Schedule D – Actuarial Life Analysis;

Schedule E – Graphics Analysis; and

Schedule F – Historical Net Salvage Analysis.

The format and content of these schedules are briefly described below.

SCHEDULE A – GENERATION ARRANGEMENT

The purpose of this schedule is to obtain appropriate weighted–average life statistics for a rate category. A weighted–average remaining–life is the sum of Column H divided by the sum of Column I. A weighted average life is the sum of Column C divided by the sum of Column I.

It should be noted that the generation arrangement does not include parameters for net salvage. Computed Net Plant (Column H) and Accruals (Column I) must be adjusted for net salvage to obtain a correct measurement of theoretical reserves and annualized depreciation accruals.

The following table provides a description of each column in the generation arrangement.

Column	Title	Description
A	Vintage	Vintage or placement year of surviving plant.
B	Age	Age of surviving plant at beginning of study year.
C	Surviving Plant	Actual dollar amount of surviving plant.
D	Average Life	Estimated average life of each vintage. This statistic is the sum of the realized life and the unrealized life, which is the product of the remaining life (Column E) and the theoretical proportion surviving.
E	Remaining Life	Estimated remaining life of each vintage.
F	Net Plant Ratio	Theoretical net plant ratio of each vintage.
G	Allocation Factor	A pivotal ratio which determines the amortization period of the difference between the recorded and computed reserve.
H	Computed Net Plant	Plant in service less theoretical reserve for each vintage.
I	Accrual	Ratio of computed net plant (Column H) and remaining life (Column E).

Table 2. Generation Arrangement

SCHEDULE B – AGE DISTRIBUTION

This schedule provides the age distribution and realized life of surviving plant shown in Column C of the Generation Arrangement (Schedule A). The format of the schedule depends upon the availability of either aged or unaged data. Derived additions for vintage years older than the earliest activity year in an account for unaged data are obtained from the age distribution of surviving plant at the beginning of the earliest activity year. The amount surviving from these vintages is shown in Column D. The realized life (Column G) is derived from the dollar years of service provided by a vintage over the period of years the vintage has been in service. Plant additions for vintages older than the earliest activity year in an account are represented by the opening balances shown in Column D.

The computed proportion surviving (Column D) for unaged data is derived from a computed mortality analysis. The average service life displayed in the title block is the life statistic derived for the most recent activity year, given the derived age distribution at the start of the year and the specified retirement dispersion. The realized life (Column F) is obtained by finding the slope of an SC retirement dispersion, which connects the computed survivors of a vintage (Column E) to the recorded vintage addition (Column B). The realized life is the area bounded by the SC dispersion, the computed proportion surviving and the age of the vintage.

SCHEDULE C – PLANT HISTORY

An Unadjusted Plant History schedule provides a summary of recorded plant data extracted from the continuing property records maintained by the Company. Activity year total amounts shown on this schedule for aged data are obtained from a historical arrangement of the database in which all plant accounting transactions are identified by vintage and activity year. Activity year totals for unaged data are obtained from a transaction file without vintage identification. Information displayed in the unadjusted plant history is consistent with regulated investments reported internally by the Company.

An Adjusted Plant History schedule provides a summary of recorded plant data extracted from the continuing property records maintained by the Company with sales, transfers, and adjustments appropriately aged for depreciation study purposes. Activity year total amounts shown on this schedule for aged data are obtained from a historical arrangement of the data base in which all plant accounting transactions are identified by vintage and activity year. Ageing of adjusting transactions is achieved using transaction codes that identify an adjusting year associated with the dollar amount of a transaction. Adjusting transactions processed in the adjusted plant history are not aged in the Company's records or in the unadjusted plant history.

SCHEDULE D – ACTUARIAL LIFE ANALYSIS

These schedules provide a summary of the dispersion and life indications obtained from an actuarial life analysis for a specified placement band. The observation band (Column A) is specified to produce a rolling–band, shrinking–band, or progressive–band analysis depending upon the movement of the end points of the band. The degree of censoring (or point of truncation) of the observed life table is shown in Column B for each observation band. The estimated average service life, best fitting Iowa dispersion, and a statistical measure of the goodness of fit are shown for each degree polynomial (First, Second, and Third) fitted to the estimated hazard rates. Options available in the analysis include the width and location of both the placement and observation bands; the interval of years included in a selected rolling, shrinking, or progressive band analysis; the estimator of the hazard rate (actuarial, conditional proportion retired, or maximum likelihood); the elements to include on the diagonal of a weight matrix (exposures, inverse of age, inverse of variance, or unweighted); and the age at which an observed life table is truncated.

Estimated projection lives (Columns C, F, and I) are flagged with an asterisk if negative hazard rates are indicated by the fitted polynomial. All negative hazard rates are set equal to zero in the calculation of the graduated survivor curve. The Conformance Index (Columns E, H, and K) is the square root of the mean sum–

of–squared differences between the graduated survivor curve and the best fitting Iowa curve. A Conformance Index of zero would indicate a perfect fit.

SCHEDULE E – GRAPHICS ANALYSIS

This schedule provides a graphics plot of a) the observed proportion surviving for a selected placement and observation band; b) the statistically best fitting Iowa dispersion and derived average service life; and c) the projection curve and projection life selected to describe future forces of mortality.

The graphics analysis also provides a plot of the observed hazard rates and graduated hazard function for a selected placement and observation band. The estimator of the hazard rates and weighting used in fitting orthogonal polynomials to the observed data are displayed in the title block of the displayed graph.

SCHEDULE F – HISTORICAL NET SALVAGE ANALYSIS

This schedule provides a moving average analysis of the ratio of realized net salvage (Column I) to the associated retirements (Column B). The schedule also provides a moving average analysis of the components of net salvage related to retirements. The ratio of gross salvage to retirements is shown in Column D and the ratio of cost of removal to retirements is shown in Column G

NARRAGANSETT ELECTRIC COMPANY

Distribution Plant
Account: 367.10 Underground Conductors and Devices

Dispersion: 37 - S0.5
Procedure: Vintage Group

Generation Arrangement

Vintage	December 31, 2008 Age	Surviving Plant	Avg. Life	Rem. Life	Net Plant Ratio	Alloc. Factor	Computed Net Plant	Accrual
A	B	C	D	E	F	G	H=C*F*G	I=H/E
2008	0.5	8,113,794	37.00	36.51	0.9867	1.0000	8,005,732	219,291
2007	1.5	8,979,570	37.00	35.55	0.9607	1.0000	8,626,626	242,686
2006	2.5	8,760,000	36.99	34.61	0.9357	1.0000	8,197,011	236,806
2005	3.5	8,070,975	36.97	33.71	0.9118	1.0000	7,359,512	218,324
2004	4.5	2,745,603	36.92	32.83	0.8892	1.0000	2,441,291	74,367
2003	5.5	4,204,193	36.77	31.97	0.8694	1.0000	3,655,314	114,337
2002	6.5	3,503,628	36.94	31.13	0.8428	1.0000	2,952,892	94,842
2001	7.5	2,668,819	37.04	30.32	0.8186	1.0000	2,184,678	72,051
2000	8.5	3,627,742	36.96	29.53	0.7989	1.0000	2,898,247	98,149
1999	9.5	2,912,662	37.01	28.76	0.7771	1.0000	2,263,464	78,707
1998	10.5	5,275,036	37.04	28.01	0.7561	1.0000	3,988,588	142,417
1997	11.5	5,000,094	36.70	27.27	0.7432	1.0000	3,715,937	136,246
1996	12.5	3,729,359	36.64	26.56	0.7250	1.0000	2,703,720	101,797
1995	13.5	3,733,845	37.08	25.86	0.6976	1.0000	2,604,704	100,707
1994	14.5	4,718,116	36.57	25.19	0.6887	1.0000	3,249,174	129,010
1993	15.5	4,115,941	37.26	24.52	0.6581	1.0000	2,708,877	110,461
1992	16.5	5,030,538	37.62	23.88	0.6347	1.0000	3,193,073	133,727
1991	17.5	6,766,104	37.27	23.25	0.6238	1.0000	4,220,603	181,556
1990	18.5	2,883,568	37.75	22.63	0.5995	1.0000	1,728,556	76,381
1989	19.5	1,991,090	37.85	22.03	0.5820	1.0000	1,158,823	52,603
1988	20.5	2,889,573	37.96	21.44	0.5648	1.0000	1,632,045	76,116
1987	21.5	2,733,976	38.18	20.87	0.5466	1.0000	1,494,412	71,617
1986	22.5	1,351,980	38.23	20.30	0.5311	1.0000	717,986	35,360
1985	23.5	1,027,863	38.58	19.76	0.5120	1.0000	526,254	26,639
1984	24.5	1,385,549	38.76	19.22	0.4958	1.0000	686,998	35,750
1983	25.5	1,631,310	38.76	18.69	0.4822	1.0000	786,672	42,092
1982	26.5	906,928	38.98	18.17	0.4663	1.0000	422,863	23,268
1981	27.5	1,446,595	39.12	17.67	0.4516	1.0000	653,259	36,976
1980	28.5	1,565,289	39.23	17.17	0.4376	1.0000	685,047	39,896
1979	29.5	1,340,243	38.37	16.68	0.4348	1.0000	582,709	34,926
1978	30.5	755,805	39.99	16.21	0.4052	1.0000	306,264	18,898
1977	31.5	1,201,140	40.27	15.74	0.3908	1.0000	469,448	29,830
1976	32.5	1,374,407	40.25	15.28	0.3795	1.0000	521,595	34,143
1975	33.5	1,009,209	40.42	14.82	0.3668	1.0000	370,149	24,969
1974	34.5	808,228	39.97	14.38	0.3598	1.0000	290,794	20,223
1973	35.5	773,324	40.79	13.94	0.3418	1.0000	264,334	18,960

NARRAGANSETT ELECTRIC COMPANY

Distribution Plant
Account: 367.10 Underground Conductors and Devices

Dispersion: 37 - S0.5
Procedure: Vintage Group

Generation Arrangement

Vintage	December 31, 2008 Age	Surviving Plant	Avg. Life	Rem. Life	Net Plant Ratio	Alloc. Factor	Computed Net Plant	Accrual
A	B	C	D	E	F	G	H=C*F*G	I=H/E
1972	36.5	859,982	38.15	13.51	0.3541	1.0000	304,536	22,540
1971	37.5	531,254	39.65	13.09	0.3301	1.0000	175,366	13,399
1970	38.5	314,254	40.50	12.67	0.3128	1.0000	98,300	7,758
1969	39.5	259,554	41.31	12.26	0.2968	1.0000	77,024	6,283
1968	40.5	115,549	40.36	11.85	0.2937	1.0000	33,938	2,863
1967	41.5	90,641	42.07	11.45	0.2722	1.0000	24,676	2,154
1966	42.5	2,410,915	39.18	11.06	0.2823	1.0000	680,570	61,535
Total	13.1	$123,614,245	37.45	27.16	0.7253	1.0000	$89,662,066	$3,300,660

NARRAGANSETT ELECTRIC COMPANY

Distribution Plant

Account: 367.10 Underground Conductors and Devices

Age Distribution

Vintage	Age as of 12/31/2008	Derived Additions	1993 Opening Balance	Experience to 12/31/2008 Amount Surviving	Proportion Surviving	Realized Life
A	B	C	D	E	F=E/(C+D)	G
2008	0.5	8,113,794		8,113,794	1.0000	0.5000
2007	1.5	8,980,538		8,979,570	0.9999	1.4999
2006	2.5	8,825,059		8,760,000	0.9926	2.4892
2005	3.5	8,271,363		8,070,975	0.9758	3.4603
2004	4.5	2,885,634		2,745,603	0.9515	4.4043
2003	5.5	4,684,727		4,204,193	0.8974	5.2429
2002	6.5	3,625,481		3,503,628	0.9664	6.3980
2001	7.5	2,698,188		2,668,819	0.9891	7.4754
2000	8.5	3,780,633		3,627,742	0.9596	8.3677
1999	9.5	3,061,831		2,912,662	0.9513	9.3770
1998	10.5	5,451,662		5,275,036	0.9676	10.3667
1997	11.5	5,689,845		5,000,094	0.8788	10.9742
1996	12.5	4,432,865		3,729,359	0.8413	11.8487
1995	13.5	3,958,192		3,733,845	0.9433	13.2177
1994	14.5	5,415,283		4,718,116	0.8713	13.6296
1993	15.5	4,297,570		4,115,941	0.9577	15.2242
1992	16.5		5,179,768	5,030,538	0.9712	16.4727
1991	17.5		7,361,002	6,766,104	0.9192	17.0007
1990	18.5		2,986,308	2,883,568	0.9656	18.3504
1989	19.5		2,122,887	1,991,090	0.9379	19.2987
1988	20.5		3,125,903	2,889,573	0.9244	20.2449
1987	21.5		2,893,288	2,733,976	0.9449	21.2751
1986	22.5		1,461,801	1,351,980	0.9249	22.1360
1985	23.5		1,090,816	1,027,863	0.9423	23.2704
1984	24.5		1,563,297	1,385,549	0.8863	24.2081
1983	25.5		1,844,266	1,631,310	0.8845	24.9555
1982	26.5		1,076,026	906,928	0.8428	25.9050
1981	27.5		1,752,072	1,446,595	0.8256	26.7603
1980	28.5		1,943,349	1,565,289	0.8055	27.5616
1979	29.5		1,845,523	1,340,243	0.7262	27.3712
1978	30.5		887,715	755,805	0.8514	29.6411
1977	31.5		1,536,554	1,201,140	0.7817	30.5411
1976	32.5		1,656,425	1,374,407	0.8297	31.1368
1975	33.5		1,295,264	1,009,209	0.7792	31.8868
1974	34.5		1,066,918	808,228	0.7575	31.9988
1973	35.5		1,058,855	773,324	0.7303	33.3640
1972	36.5		1,696,400	859,982	0.5069	31.2524

NARRAGANSETT ELECTRIC COMPANY

Distribution Plant

Account: 367.10 Underground Conductors and Devices

Age Distribution

Vintage	Age as of 12/31/2008	Derived Additions	1993 Opening Balance	Experience to 12/31/2008 Amount Surviving	Proportion Surviving	Realized Life
A	B	C	D	E	F=E/(C+D)	G
1971	37.5		925,430	531,254	0.5741	33.2455
1970	38.5		736,105	314,254	0.4269	34.5813
1969	39.5		389,218	259,554	0.6669	35.8433
1968	40.5		316,695	115,549	0.3649	35.3268
1967	41.5		205,945	90,641	0.4401	37.4558
1966	42.5		6,177,411	2,410,915	0.3903	34.9546
1965	43.5		182		0.0000	34.4893
Total	13.1	$84,172,665	$54,195,421	$123,614,245	0.8934	

NARRAGANSETT ELECTRIC COMPANY
Distribution Plant

Account: 367.10 Underground Conductors and Devices

Unadjusted Plant History

Year	Beginning Balance	Additions	Retirements	Sales, Transfers & Adjustments	Ending Balance
A	B	C	D	E	F=B+C-D+E
1993	37,273,124	746,715	3,714,859		34,304,980
1994	34,304,980	750,296	80,696	(33,445)	34,941,135
1995	34,941,135		84,485		34,856,650
1996	34,856,650	1,587,029	110,886	15,576	36,348,369
1997	36,348,369	9,896,128	781,098	2	45,463,401
1998	45,463,401	1,906,532	405,822	6,331	46,970,442
1999	46,970,442	2,944,163	102,599	(539,462)	49,272,544
2000	49,272,544	7,053,953	336,966	20,199,468	76,188,999
2001	76,188,999	3,951,901	621,978		79,518,922
2002	79,518,922	5,398,793	677,423	1	84,240,293
2003	84,240,293	7,273,572	938,383		90,575,482
2004	90,575,482	3,407,095	1,138,221		92,844,356
2005	92,844,356	8,663,012	1,997,253	3,135	99,513,250
2006	99,513,250	8,852,715	1,480,916		106,885,049
2007	106,885,049	9,258,805	1,110,176	3,922	115,037,602
2008	115,037,602	9,748,724	1,172,080		123,614,245

NARRAGANSETT ELECTRIC COMPANY

Distribution Plant

Account: 367.10 Underground Conductors and Devices

Adjusted Plant History

Year	Beginning Balance	Additions	Retirements	Sales, Transfers & Adjustments	Ending Balance
A	B	C	D	E	F=B+C-D+E
1993	40,104,354	3,404,357	3,714,859		39,793,852
1994	39,793,852	4,608,271	80,696		44,321,427
1995	44,321,427	3,169,688	84,485		47,406,630
1996	47,406,630	3,877,746	110,886	15,576	51,189,066
1997	51,189,066	4,250,125	781,098	2	54,658,095
1998	54,658,095	4,512,871	405,822		58,765,144
1999	58,765,144	2,357,668	102,599		61,020,213
2000	61,020,213	3,776,709	336,966	20,199,192	84,659,148
2001	84,659,148	2,698,187	621,978		86,735,357
2002	86,735,357	3,625,481	677,423		89,683,415
2003	89,683,415	4,684,413	938,383		93,429,445
2004	93,429,445	2,885,634	1,138,221		95,176,858
2005	95,176,858	8,271,363	1,997,253	3,135	101,454,103
2006	101,454,103	8,825,059	1,480,916		108,798,247
2007	108,798,247	8,980,538	1,110,176	3,922	116,672,531
2008	116,672,531	8,113,794	1,172,080		123,614,245

NARRAGANSETT ELECTRIC COMPANY

Distribution Plant

Account: 367.10 Underground Conductors and Devices

T-Cut: None
Placement Band: 1965-2008
Hazard Function: Proportion Retired
Weighting: Exposures

Rolling Band Life Analysis

		First Degree			Second Degree			Third Degree		
Observation Band	Censoring	Average Life	Disper-sion	Conf. Index	Average Life	Disper-sion	Conf. Index	Average Life	Disper-sion	Conf. Index
A	B	C	D	E	F	G	H	I	J	K
1993-1997	37.4	25.8	L2 *	11.87	26.8	S2 *	6.06	60.3	O4 *	8.25
1994-1998	74.7	53.9	L1	1.87	47.8	S0.5	1.59	145.2	SC *	1.30
1995-1999	76.1	58.3	L1	1.61	54.5	L1	1.51	151.9	SC *	1.28
1996-2000	75.3	59.2	L1	1.20	56.2	L1	1.16	150.8	SC *	0.98
1997-2001	73.0	57.1	L0.5	1.13	54.5	L1	1.05	142.1	SC *	1.16
1998-2002	70.7	58.9	L1	2.02	46.3	R2	1.18	43.9	R2.5	1.24
1999-2003	69.2	61.5	L0.5	2.35	47.8	R1.5	1.67	42.7	R2.5	1.70
2000-2004	58.7	48.7	L1	2.53	41.4	R1.5	1.63	39.6	R2	1.55
2001-2005	48.1	41.6	L1	1.80	38.2	S0.5	1.29	37.4	R1.5	1.22
2002-2006	0.0	41.9	L0.5	7.38	36.6	R1	6.51	36.2	R1	6.48
2003-2007	43.4	42.5	L0.5	2.23	37.0	R1	0.92	36.2	R1	0.84
2004-2008	38.5	40.6	L1	2.41	36.7	R1.5	1.05	36.5	R1.5	1.07

NARRAGANSETT ELECTRIC COMPANY

Distribution Plant

Account: 367.10 Underground Conductors and Devices

T-Cut: None
Placement Band: 1965-2008
Hazard Function: Proportion Retired
Weighting: Exposures

Shrinking Band Life Analysis

Observation Band	Censoring	First Degree			Second Degree			Third Degree		
		Average Life	Disper-sion	Conf. Index	Average Life	Disper-sion	Conf. Index	Average Life	Disper-sion	Conf. Index
A	B	C	D	E	F	G	H	I	J	K
1993-2008	38.3	39.0	L1.5 *	2.48	36.7	S0.5	2.20	75.9	O4 *	2.00
1995-2008	45.9	46.4	L1	2.27	40.2	R1.5	0.93	38.9	R2	0.79
1997-2008	44.9	45.4	L1	2.26	39.6	R1.5	0.92	38.5	R1.5	0.81
1999-2008	45.0	45.7	L1	2.48	39.6	R1.5	0.97	38.5	R2	0.91
2001-2008	43.0	43.5	L1	2.48	38.2	R1.5	1.01	37.5	R1.5	0.92
2003-2008	41.0	42.1	L0.5	2.35	37.4	R1	0.97	36.7	R1.5	0.96
2005-2008	36.1	41.4	L0.5	3.38	37.0	R1	2.00	36.4	R1	2.08
2007-2008	41.7	44.3	L1.5 *	3.13	39.8	R2	1.82	39.2	R2	2.02

NARRAGANSETT ELECTRIC COMPANY

Distribution Plant

Account: 367.10 Underground Conductors and Devices

T-Cut: None
Placement Band: 1965-2008
Hazard Function: Proportion Retired
Weighting: Exposures

Progressing Band Life Analysis

Observation Band	Censoring	First Degree			Second Degree			Third Degree		
		Average Life	Disper-sion	Conf. Index	Average Life	Disper-sion	Conf. Index	Average Life	Disper-sion	Conf. Index
A	B	C	D	E	F	G	H	I	J	K
1993-1994	22.0	18.9	S1.5 *	23.82	22.8	S3 *	6.68	22.6	S3 *	7.36
1993-1996	37.5	24.5	L2 *	15.45	26.4	S3 *	6.03	46.3	O4 *	9.49
1993-1998	40.6	27.7	L2 *	10.24	28.1	S1.5 *	6.26	71.3	O4 *	7.82
1993-2000	48.9	32.6	L1.5 *	6.86	32.0	S1 *	5.59	93.4	O4 *	6.32
1993-2002	50.2	35.8	L1.5 *	5.08	34.7	S1 *	4.36	100.7	O4 *	4.42
1993-2004	47.4	37.5	L1.5 *	3.95	36.0	S1	3.58	97.3	O4 *	3.32
1993-2006	0.0	37.8	L1.5 *	6.50	36.0	S0.5	6.10	87.5	O4 *	6.38
1993-2008	38.3	39.0	L1.5 *	2.48	36.7	S0.5	2.20	75.9	O4 *	2.00

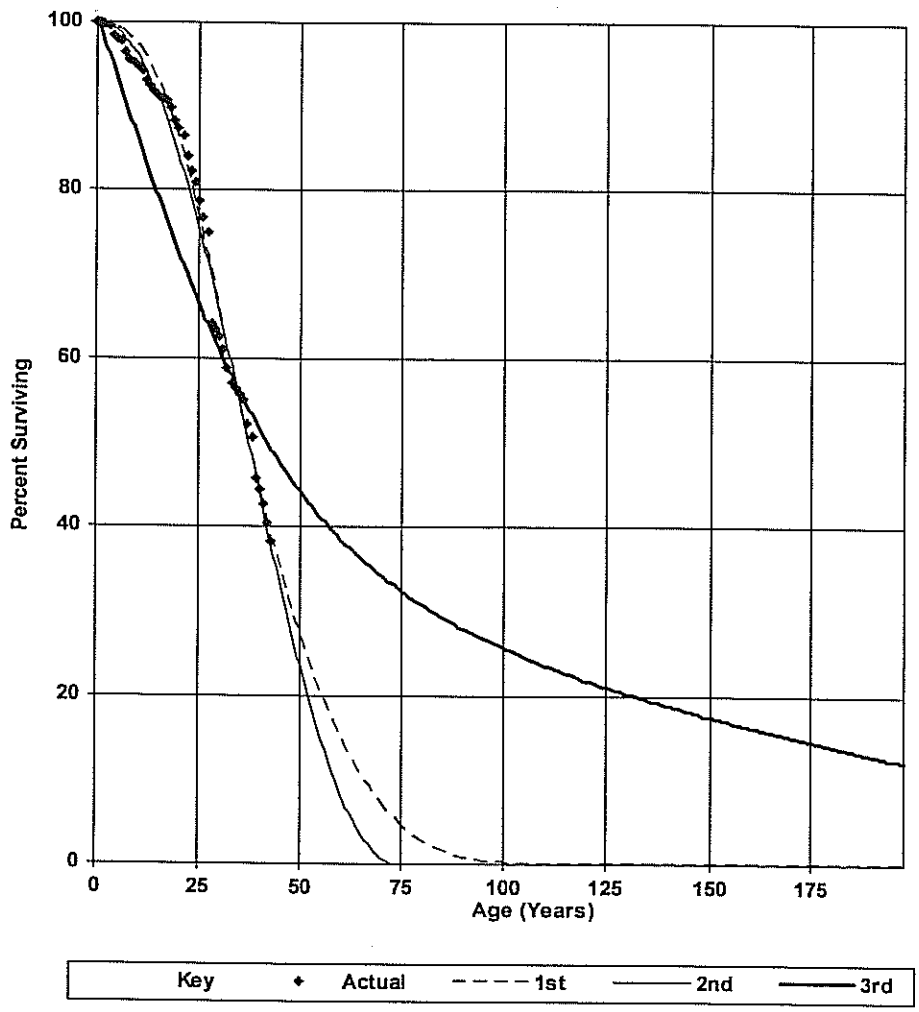
NARRAGANSETT ELECTRIC COMPANY
Distribution Plant

Account: 367.10 Underground Conductors and Devices

T-Cut: None
Placement Band: 1965-2008 Observation Band: 1993-2008
Hazard Function: Proportion Retired
Weighting: Exposures

Graphics Analysis

1st: 39.0-L1.5 2nd: 36.7-S0.5 3rd: 75.9-O4



NARRAGANSETT ELECTRIC COMPANY

Distribution Plant

Account: 367.10 Underground Conductors and Devices

T-Cut: None

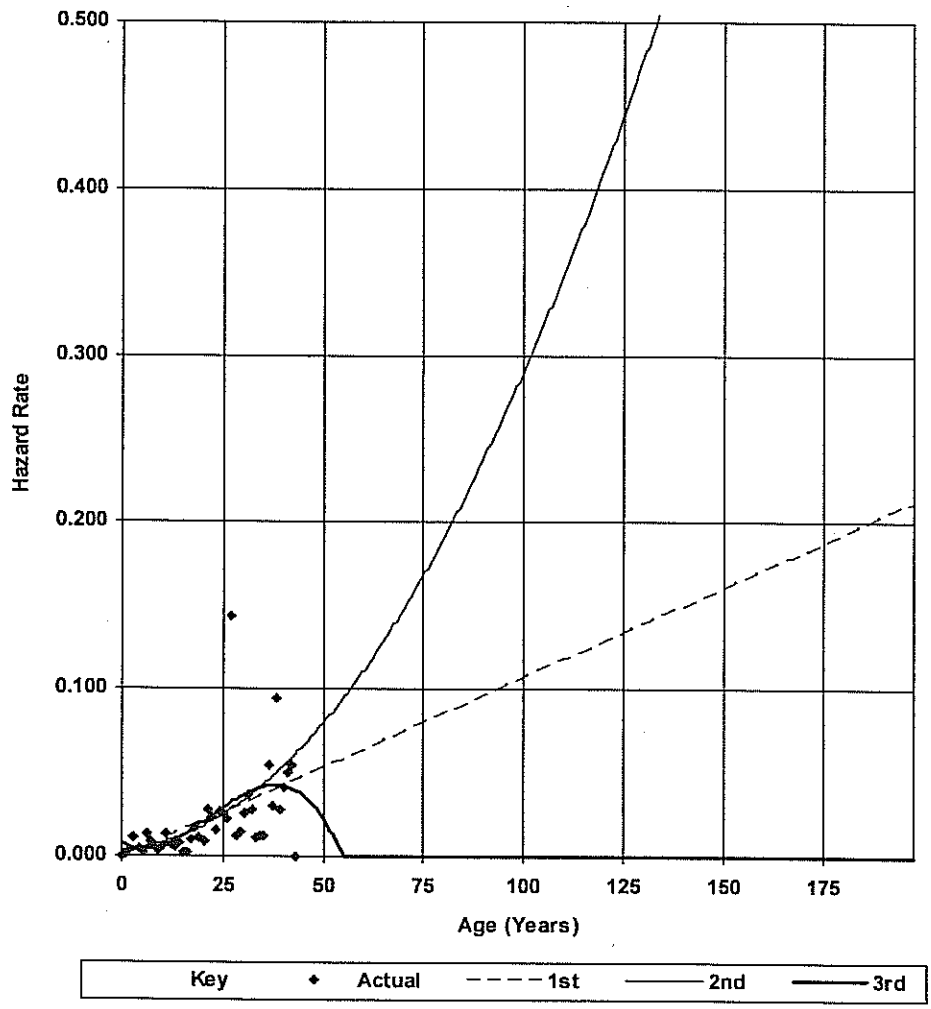
Placement Band: 1965-2008 Observation Band: 1993-2008

Hazard Function: Proportion Retired

Weighting: Exposures

Polynomial Hazard Function

1st: 39.0-L1.5 2nd: 36.7-S0.5 3rd: 75.9-O4

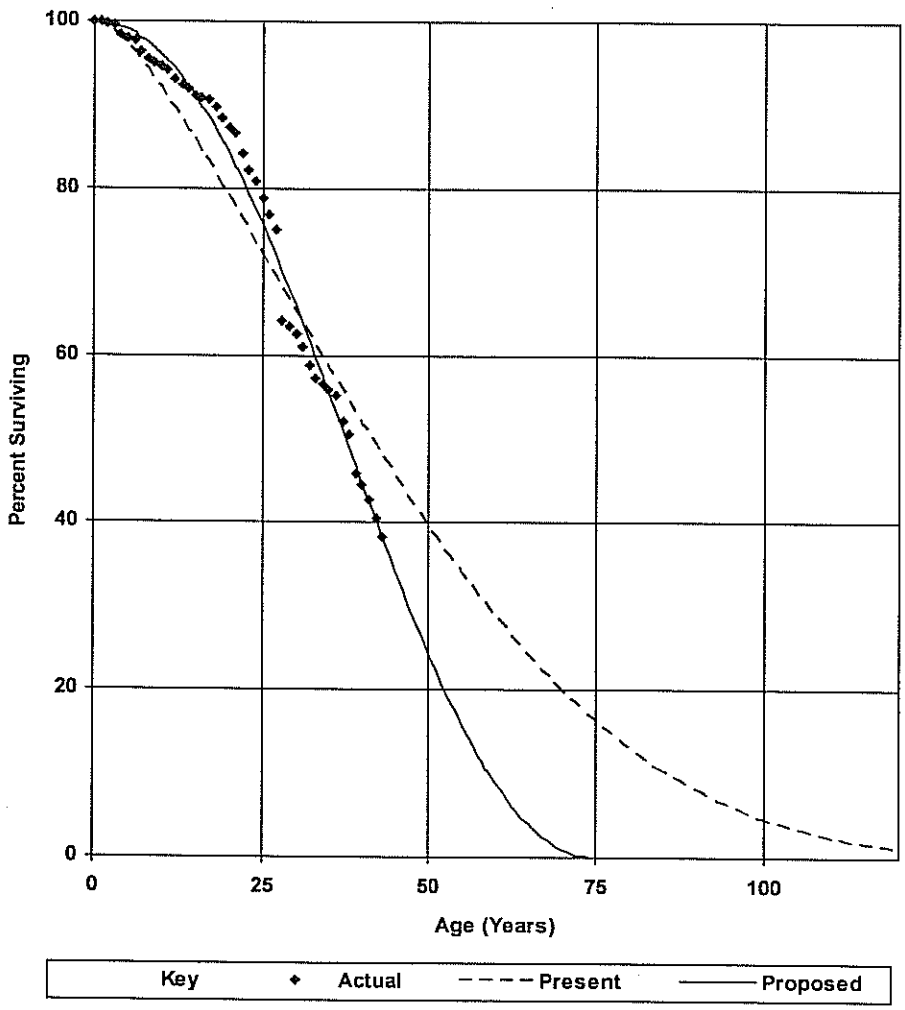


NARRAGANSETT ELECTRIC COMPANY
Distribution Plant

Account: 367.10 Underground Conductors and Devices

T-Cut: None
Placement Band: 1965-2008
Observation Band: 1993-2008

Present and Proposed Projection Life Curves Present: 45.0-L0 Proposed: 37.0-S0.5



NARRAGANSETT ELECTRIC COMPANY

Distribution Plant

Account: 367.00 Underground Conductors and Devices

Unadjusted Net Salvage History

		Gross Salvage			Cost of Retiring			Net Salvage		
Year	Retirements	Amount	Pct.	1-Yr Avg.	Amount	Pct.	1-Yr Avg.	Amount	Pct.	1-Yr Avg.
A	B	C	D=C/B	E	F	G=F/B	H	I=C-F	J=I/B	K
2004	1,138,221		0.0	0.0	330,826	29.1	29.1	(330,826)	-29.1	-29.1
2005	1,997,253		0.0	0.0	(268,205)	-13.4	-13.4	268,205	13.4	13.4
2006	1,480,916		0.0	0.0	621,130	41.9	41.9	(621,130)	-41.9	-41.9
2007	1,110,176		0.0	0.0	425,394	38.3	38.3	(425,394)	-38.3	-38.3
2008	1,172,080		0.0	0.0	720,091	61.4	61.4	(720,091)	-61.4	-61.4
Total	6,898,646		0.0		1,829,236	26.5		(1,829,236)	-26.5	

NARRAGANSETT ELECTRIC COMPANY

Distribution Plant

Account: 367.00 Underground Conductors and Devices

Adjusted Net Salvage History

		Gross Salvage			Cost of Retiring			Net Salvage		
Year	Retirements	Amount	Pct.	1-Yr Avg.	Amount	Pct.	1-Yr Avg.	Amount	Pct.	1-Yr Avg.
A	B	C	D=C/B	E	F	G=F/B	H	I=C-F	J=I/B	K
2004	1,138,221		0.0	0.0	330,826	29.1	29.1	(330,826)	-29.1	-29.1
2005	1,997,253		0.0	0.0	(268,205)	-13.4	-13.4	268,205	13.4	13.4
2006	1,480,916		0.0	0.0	621,130	41.9	41.9	(621,130)	-41.9	-41.9
2007	1,110,176		0.0	0.0	425,394	38.3	38.3	(425,394)	-38.3	-38.3
2008	1,172,080		0.0	0.0	720,091	61.4	61.4	(720,091)	-61.4	-61.4
Total	6,898,646		0.0		1,829,236	26.5		(1,829,236)	-26.5	