

National Grid

The Narragansett Electric Company

INVESTIGATION AS TO THE
PROPRIETY OF PROPOSED TARIFF
CHANGES

Testimony and Schedules of:

Thomas B. King

John Pettigrew

Rudolph L. Wynter

Book 1 of 9

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The Narragansett Electric Company
d/b/a National Grid
Docket No. R.I.P.U.C. _____
Witness: King

PRE-FILED DIRECT TESTIMONY

OF

THOMAS B. KING

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I. Introduction and Qualifications

Q. Please state your name and business address.

A. My name is Tom King. My business address is 40 Sylvan Road, Waltham, MA 02451.

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

A. I am the President of National Grid USA¹, and several of its subsidiary companies, including The Narragansett Electric Company. I am the Executive Director, Electricity Distribution and Generation, for National Grid with responsibility for National Grid's regulated electric distribution and generation operations in Rhode Island, Massachusetts, New Hampshire, and New York. I am also a member of National Grid plc's Board of Directors.

Q. Please briefly describe your educational background and your business experience.

A. I graduated from Louisiana State University with a Bachelor of Science in 1984. In addition, I graduated from the University of Michigan's Executive Management Program in 1991 and successfully completed the Nuclear Reactor Technology Program at the Massachusetts Institute of Technology in 2005. Prior to joining National Grid, I was the President of PG&E Corporation and Chairman and CEO of Pacific Gas and Electric Company from 2003-07. Before that, I served as Senior Vice President of PG&E Corporation, and as President of PG&E National Energy Group, having joined PG&E Gas Transmission as President in 1998. Prior to PG&E, I was the President and Chief

1 Operating Officer of Kinder Morgan Energy Partners. From 1989 to 1997, I held a series
2 of senior operating positions with various Enron affiliates, including Enron Liquid
3 Services, Northern Natural Gas Company, Transwestern Pipeline Company and Northern
4 Border Pipeline Company. I also held positions at Cabot Corporation's natural gas unit,
5 Cabot Transmission Corporation, and the Panhandle Eastern Corporation. I serve as a
6 Board member of Jobs for Mass, Alliance to Save Energy, Business Council of New
7 York, New York Energy Association, and the Edison Electric Institute.

8
9 **Q. What are your principal responsibilities?**

10 A. As a member of National Grid plc's Board of Directors, I am responsible for and oversee
11 all aspects of National Grid's operations in the United States. As the President of
12 National Grid USA and many of its subsidiaries, and the Executive Director of Electricity
13 Distribution and Generation, I am the senior officer responsible for electricity distribution
14 in New England and New York, electricity generation on Long Island, energy portfolio
15 management, customer interactions, marketing of products and services, external affairs,
16 regulatory affairs, and the safety, health, environmental and security functions.

17
18 **II. Organization of Testimony and Introduction of Witnesses**

19 **Q. How have you organized your testimony?**

20 A. My testimony begins with National Grid's overall vision. In short, our vision includes a
21 commitment to deliver unparalleled efficiency, reliability, and safety; be an innovative

¹ Throughout this testimony, I will refer to National Grid USA and its subsidiaries as "National Grid." For purposes

1 leader in energy management; and safeguard our global environment for future
2 generations. I will expand on our aspirations, and discuss this vision in the context of
3 the emerging federal and state energy policy, which is redefining the role of the utility to
4 address many of the large current challenges. Sound energy policy is at the forefront of
5 tackling global climate change concerns and the development of a competitive twenty-
6 first century infrastructure to support economic success for the nation's businesses and
7 well-being of its residents. I will talk about the central role the utility plays in furthering
8 public energy policy in Rhode Island and in each and every state in which we do
9 business. In addition, I will address how, in order to create the future, we must renew the
10 regulatory compact to ensure that the utility is economically competitive.
11

12 **Q. What is the Company's request for base-rate relief in this proceeding and what are**
13 **the factors motivating this request?**

14 A. In this proceeding, the Company is seeking to recover an annual revenue deficiency of
15 approximately \$75.3 million based on a rate base of approximately \$624 million. This
16 proposal represents an increase of approximately 11.2 percent in the total monthly bill for
17 a 500 kWh residential customer receiving Standard Offer Service. In making this request,
18 the Company is acutely aware that it is difficult to raise rates for customers, especially in a
19 challenging economic environment. However, the Company must ensure proper cash
20 flow to support the need for increased investment in the electric distribution system in
21 Rhode Island in order to replace aging infrastructure, and ensure that proper maintenance

of clarity, where I intend to refer to The Narragansett Electric Company, I will refer to it as the "Company."

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1 and operating costs are covered. Replacing this aging infrastructure will produce long-
2 term benefits for customers by increasing the reliability and safety of the system.
3

4 In this filing, the Company has set forth a series of proposals that, on a collective basis,
5 are designed to deal directly with the factors that currently make it difficult to maintain
6 an adequate level of cost recovery and rate stability over time. If approved by the
7 Commission, these proposals would restore the Company's ability to fund utility
8 operations on a sustainable going forward basis, and in doing so, would directly serve the
9 interest of Rhode Island customers in having access to safe and reliable electric service,
10 at the lowest reasonable cost over the long term in a world with ever changing demands
11 with respect to energy consumption and use. In addition, our plans will support the
12 state's policy in addressing energy security and climate change challenges. If not
13 approved by the Commission, there is a risk that the Company will be unable to meet its
14 service quality mandates as established by the Commission. In addition, the Company
15 will face additional challenges in raising capital to modernize the operating integrity of
16 the electric infrastructure to meet the changing demands of customers and to bring to
17 fruition the objectives of Rhode Island's progressive energy policies.
18

19 **Q. Would you please provide an overview of the Company's witness testimony included**
20 **in the filing?**

21 A. Yes. The Company's filing is set forth in the testimony of ten witnesses, in addition to
22 my own. These testimonies are as follows:

- 1 • John Pettigrew is the Executive Vice President and Chief Operating Officer of Electric
2 Distribution Operations for National Grid. Mr. Pettigrew's testimony sets forth our
3 capital additions, property strategy, and cost savings initiatives.
- 4 • Rudolph L. Wynter, is the Senior Vice President of Customer Services for National Grid.
5 Mr. Wynter's testimony sets forth our request for an uncollectibles reconciliation
6 mechanism.
- 7 • Susan F. Tierney is a Managing Principal for Analysis Group, Inc. Dr. Tierney's
8 testimony describes how the traditional ratemaking process impedes the Company's
9 ability to deliver on the important public policy initiatives related to energy and climate
10 change, and proposes a revenue decoupling ratemaking plan.
- 11 • Timothy Stout is the Vice President of Efficiency Strategy and Planning for National
12 Grid. Mr. Stout's testimony describes the Company's current energy efficiency efforts in
13 Rhode Island and future opportunities to expand those programs.
- 14 • Paul R. Moul is the principal of P. Moul and Associates. Mr. Moul's testimony presents
15 the Company's proposal for the return on equity, capital structure, and proxy value for
16 the long term debt rate.
- 17 • William F. Dowd is the Senior Vice President of U.S. Labor Relations for National Grid.
18 Mr. Dowd's testimony describes compensation and benefits.
- 19 • Kimbugwe A. Kateregga is a Vice President and Consultant of Foster Associates, Inc.
20 Mr. Kateregga's testimony presents the Company's depreciation study and proposed
21 depreciation rates for ratemaking purposes.
- 22 • Robert L. O'Brien is with O'Brien Innovative Regulatory Solutions, LLC, retained by

1 Black & Veatch Corporation (“Black & Veatch”) as a Senior Advisor . Mr. O’Brien’s
2 testimony sets for the calculation of the Company’s proposed revenue requirement and
3 resulting revenue deficiency.

- 4 • Howard S. Gorman is a Principal with Black & Veatch. Mr. Gorman’s testimony sets
5 forth the calculation of the allocated cost of service and rate design.

- 6 • Alfred P. Morrissey is a Lead Analyst of Electric Load Forecasting in the Energy
7 Portfolio Management Department of National Grid. Mr. Morrissey’s testimony presents
8 the Company’s sales forecast.

- 9 • John E. Walter is the Manager of Outdoor Lighting for National Grid. Mr. Walter’s
10 testimony sets forth the Company’s proposal for decorative lighting tariffs and proposed
11 changes to the Company’s existing street lighting offerings.

- 12 • Carmen Fields is the Director-Community Relations/Economic Development NE for
13 National Grid. Ms. Fields’ testimony sets forth the Company’s proposal for an economic
14 development program which will support the creation and maintenance of jobs.

15
16 **III. National Grid’s Vision**

17 **Q. What is National Grid’s vision?**

18 A. In 2007, National Grid developed a bold vision statement to succinctly state our
19 commitments and values:

20 We, at National Grid, will be the foremost international electricity and gas
21 company, delivering unparalleled efficiency, reliability and safety, vital to the
22 well being of our customers and communities.

1 We are committed to being an innovative leader in energy management and to
2 safeguarding our global environment for future generations.

3
4 **Q. What does this vision statement mean to you?**

5 A. This vision statement drives my work every day. Our commitment to efficiency,
6 reliability, and safety is paramount, and is the bedrock for all that we do today and will
7 remain as a foundation for all that we will be able to do for decades to come. Our
8 commitment to environmental stewardship demonstrates our self-conscious awareness of
9 the impact that we and our customers, vendors, and other stakeholders have on the
10 environment and creates the impetus for action today that can be sustainable tomorrow
11 and over the long term. This commitment drives our customer offerings and pervades
12 our forward-looking decision making.

13
14 **Q. What does it mean to be a foremost international electricity and gas company?**

15 A. We are recognized for our vital role in delivering energy and are seen as a trusted partner
16 in solving the changing needs of how society sources and uses energy. Our aspiration to
17 be a foremost international electricity and gas company means that we are striving to
18 deliver high performance for customers everywhere we provide service. We state the
19 vision in the first person, to emphasize that each National Grid employee shares the
20 vision and does his or her own part to contribute to its success.

21
22 **Q. What do the two parts of the vision statement mean for customers?**

1 A. Customers want cost-effective, reliable, and safe electric service. They also want access
2 to information and assistance on a wide variety of energy products. We are in a unique
3 position to provide both. We are the interface with all electric users and provide reliable
4 delivery and back-stop commodity service; expansive, robust energy efficiency
5 programs; smart grid infrastructure; transmission for renewables; and real-time energy
6 use and pricing information and control to customers. Our customers need this
7 information to make energy use decisions to reduce their consumption and lower their
8 energy bills.

9
10 As the interface with all electric users, we are also in a unique position to help address the
11 economic challenges that some customers face. For some low-income customers, paying
12 even a reduced bill creates a hardship. Low income rates, budget billing arrangements,
13 and arrearage management plans help to mitigate that challenge. In addition, utilities can
14 provide effective economic development avenues for businesses needing assistance in
15 growing or maintaining their business in the service area.

16
17 As articulated by state and federal policy, there is also a general consensus that as a state
18 and a nation we must address the challenges posed by global climate change. National
19 Grid is enabling green energy solutions for customers and other stakeholders, taking
20 aggressive steps to minimize our own environmental impact, and intends to accelerate
21 progressive steps in this regard with our vendors.

1 **Q. What does the vision statement mean for communities?**

2 A. We endeavor to be a good corporate citizen in our communities. We strive to meet their
3 expectations with regard to how we provide service. Our employees come from our
4 communities. Many of them are also our customers so they understand the expectations
5 and needs of our other customers and act on them. Where and when possible we hire or
6 contract with local vendors as well. This enables us to support the local economy and
7 add value to our organization by bringing in new ways of thinking about how to do
8 business. We are mindful of the cost impact of all vendors so we strive to deliver the best
9 service possible while being competitive on costs.

10
11 **Q. How can you deliver unparalleled efficiency, reliability, and safety to customers and**
12 **communities?**

13 A. We are transforming our Electricity Distribution Operations (“EDO”) to optimally meet
14 the changing demands of our customers who expect and deserve superior service. The
15 central target of this undertaking is to reduce costs over the long term through a broad-
16 based effort to increase the efficiency and effectiveness of the EDO organization. We are
17 addressing all aspects of electricity operations, including work management, design,
18 construction, asset management, network operation, and customer management. This is
19 an on-going effort: we are so often in an environment where costs increase, and we will
20 always be focusing on how to reduce costs. We have also been investing in the
21 infrastructure to replace aging assets and modernize the system, and this investment will
22 continue. These actions are described in more detail in Mr. Pettigrew’s testimony.

1 The Company is proud of the direction we are going in and the results that we have
2 already achieved. In 2008, we exceeded our service quality metric regarding the
3 customer contact standard and met all of our other service quality metrics. (This is fully
4 set forth in our 2008 Annual Service Quality Report for Electric Operations filed on May
5 1, 2009 in Docket 3628.)
6

7 **Q. How do you intend to become an innovative leader in energy management and to**
8 **safeguard our global environment for future generations?**

9 A. We believe that climate change is the seminal issue that impacts our global environment
10 today. We make our business decisions and set our financial targets with climate change
11 issues and carbon reduction goals at the forefront. We have established one of the most
12 aggressive greenhouse gas reduction goals in the industry, to reduce emissions by eighty
13 percent by 2050. We are very proud to be one of the first companies to implement
14 carbon budgets, which we intend to do in our current fiscal year later in 2009.
15

16 Energy efficiency plays a central role in climate change policy, because energy efficiency
17 programs are among the most cost-effective ways to reduce greenhouse gas emissions.

18 Energy efficiency is more cost-effective than building new power plants, has the potential
19 to dramatically lower greenhouse gas emissions, and provides consumers with long-term
20 savings on their energy bills. Our award winning energy efficiency programs, recognized
21 by the Environmental Protection Agency, Department of Energy, American Council for
22 an Energy-Efficient Economy, Association of Energy Service Professionals, Alliance to

1 Save Energy, and Edison Electric Institute, among other national and regional bodies,
2 date back twenty years. Through 2008, they produced an approximate cumulative annual
3 savings of 7 million megawatt-hours in Rhode Island. We will be further doing our part
4 at National Grid when we consolidate our New England offices at a central service area
5 location in a building designed to achieve at least a LEED Gold rating, which makes it
6 among the most recognized environmentally responsible office buildings in New
7 England.²

8
9 As discussed in Mr. Stout's testimony, in 2006, the Rhode Island General Assembly
10 enacted the Comprehensive Energy Conservation, Efficiency, and Affordability Act
11 requiring the establishment of standards for energy efficiency. As a result, in 2008 the
12 Commission adopted energy efficiency procurement standards in Docket No. 3931. In
13 2009, the Commission approved the three-year Least Cost Procurement Plan that was
14 submitted pursuant to those standards as well as the Energy Efficiency Procurement Plan
15 for 2009. Under these plans, we are ramping up our energy efficiency activities and are
16 working towards achieving dramatic increases in annual energy efficiency savings by the
17 end of 2011. In addition, the Company continues to work with the Rhode Island Energy
18 Efficiency Resource Management Council and other stakeholders to help chart Rhode
19 Island's course towards procuring all least cost energy efficiency measures.

² LEED, which is an acronym for Leadership in Energy and Environmental Design, promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: (1) sustainable site development; (2) water savings; (3) energy efficiency; (4) materials selection; and (5) indoor environmental quality. LEED-certified buildings have lower operating costs, reduce the amount of waste sent to landfills, conserve energy and water, are healthier and safer to occupants, and reduce harmful greenhouse gas emissions.

1 **Q. It sounds like National Grid is really trying to change the landscape of the**
2 **traditional regulated utility model. Is that right?**

3 A. Yes. Achieving National Grid's vision is absolutely the right and responsible thing to be
4 doing in these times. For customers with ever increasing demands, it will mean that
5 National Grid will be able to invest appropriately to provide the services our customers
6 need and deserve for the future. For policy makers trying to create a world which can
7 meet our citizens' energy needs in an environmentally responsible way, it will mean that
8 National Grid will be able to act further on its deep commitment as a serious partner in
9 achieving important public policy objectives. For our communities and other
10 stakeholders, it will mean that National Grid will continue to fulfill its responsibilities in
11 the regulatory compact by providing safe and reliable services cost effectively, and to do
12 so in changing times, which demand more services that are delivered better and more
13 competitively than ever before. For National Grid, it will mean that we can achieve a
14 competitive position in the global market for financial and human capital to ensure that
15 we can continue to provide the services our customers deserve efficiently, reliably and
16 safely for future generations to come.

17
18 While all of this work will help bring National Grid, our customers, and our communities
19 into the future, it builds on our shared regulatory traditions of the past. The utility's
20 franchise obligation and the regulatory compact under which it operates remain
21 fundamentally intact and honored by all that we propose to do to achieve our vision.

1 However, it updates the responsibilities of the parties to that compact for the modern age.
2 National Grid, as the regulated utility, retains the obligation to provide efficient, reliable,
3 and safe services to our customers. In return, National Grid is entitled to recover its
4 prudently incurred costs and investments and earn a fair return which positions it
5 competitively to meet its franchise obligations for customers.
6

7 **IV. State and Federal Energy and Climate Change Policies**

8 **Q. Please describe the current trends in state and federal energy and climate change**
9 **policies.**

10 A. The twin challenges of energy and climate change policies are high priorities for both
11 state and federal policy makers. There is now broad recognition that we need a vital and
12 innovative energy policy to address global climate change challenges and secure a
13 resilient energy future for our country. At the same time, expectations for reliable service
14 are increasing, and are being mandated through statutory and regulatory action.
15

16 In Rhode Island, the Comprehensive Energy Conservation, Efficiency, and Affordability
17 Act of 2006 provides legislative leadership regarding energy efficiency procurement
18 standards that will benefit Rhode Island's energy security, and the environment. I have
19 already referred to some of the initiatives we are implementing to achieve these
20 legislative goals above.
21

1 On the federal side, Congress is now working on the third comprehensive energy bill
2 since 2005. The first bill, the Energy Policy Act of 2005, focused primarily on energy
3 supply issues such as oil and natural gas production, electric generation and transmission
4 development, and system reliability, with modest provisions for energy efficiency and
5 renewable energy. The second bill, the Energy Independence and Security Act of 2007,
6 weighed more heavily on energy efficiency in commercial buildings and public
7 institutions, and appliances and lighting. This bill also included the first broad policy
8 statements on smart grid, the first increase in vehicle mileage standards (“CAFE”) in
9 decades, provisions for alternative biofuels, and research and development of clean
10 electricity generation technologies. The current efforts in both houses of Congress focus
11 on energy policy in the context of comprehensive climate change policy. With the
12 deepening recession and continued decline in the economy resulting in growing
13 unemployment, President Obama signed the \$787 billion American Recovery and
14 Investment Act of 2009. This bill, which covers all sectors of the economy, has
15 significant provisions for the energy industry, including the expansion of the electric
16 transmission network, smart grid development, a broad array of energy efficiency
17 programs, clean-fuel transportation incentives, and research and development programs.
18 Proposals for a cap and trade regime that would reduce carbon emissions over eighty
19 percent by 2050 are now making their way through both the House of Representatives
20 and Senate.

21
22 **Q. How does state and federal energy policy relate to National Grid’s vision?**

1 A. I am delighted that this energy policy is generally consistent with National Grid's vision.
2 For the same reasons that National Grid believes that our vision is right for our
3 customers, communities, and future generations, we believe that the developing energy
4 policy is right for Rhode Island and the country. In fact, fulfilling our vision has led us to
5 taking on a leadership role in participating in the development of state and federal energy
6 policy in partnership with our public representatives.
7

8 **V. The Important Role of the Utility**

9 **Q. How does energy policy affect utilities such as National Grid?**

10 A. The evolving energy policy gives utilities tremendous responsibility in addressing the
11 challenges of climate change. Utilities have a responsibility to be a key, if not the key,
12 participant in implementing many state and federal energy policy requirements.
13

14 **Q. You state that utilities have a key responsibility in implementing many state and**
15 **federal policy requirements. Why is that?**

16 A. With our unique role as the infrastructure and information provider to customers, we are
17 well situated to support and implement public policies regarding energy security, energy
18 efficiency, smart grid, the development of renewables, and real time energy use
19 information and control to customers, among other important efforts. We can be a
20 partner with state and federal policy makers, capable of delivering cost effective service
21 and investing appropriately to meet future requirements.
22

1 **Q. Why is the Company filing a distribution rate case now?**

2 A. With the filing of this rate case, the Company takes an important step towards creating a
3 sustainable future for a regulated entity. This is a journey that we are taking with the
4 Commission, the Division, and other stakeholders. We share the same goals of providing
5 (1) safe, reliable, and efficient energy delivery to the customers in our service area, (2)
6 fulfilling the broad objectives of the Comprehensive Energy Conservation, Efficiency,
7 and Affordability Act of 2006 and federal energy policy; and (3) addressing the specific
8 issues of particular customers, such as vulnerable low-income residential customers or
9 local businesses that, with appropriate assistance, could increase jobs in our service area.
10 In a sense, we are modernizing the regulatory compact for the twenty-first century.

11
12 The Company's last full base rate proceeding was in 1995. Since then, the industry
13 restructured; National Grid's predecessor in interest, New England Electric System, sold
14 off its generating plants; and several mergers and acquisitions occurred, including
15 Narragansett Electric Company's merger with Blackstone Valley Electric Corporation
16 and Newport Electric Corporation. That merger resulted in the long-term rate plan
17 approved by the Commission on March 14, 2000, which implemented a distribution rate
18 reduction of \$2.7 million and froze those reduced rates through December 2004. In
19 September 2004, the Commission reaffirmed the rate plan in concert with an additional
20 reduction in annual distribution rates effective November 1, 2004 of \$10.2 million and
21 froze them at that level through 2009. That rate plan ends January of 2010. Resetting the
22 Company's distribution rates now is critical for enabling the Company to meet its basic

1 service obligations. At that point, the Company will be well positioned to continue to
2 provide the safe and reliable energy services our customers expect and firmly and
3 ambitiously participate in the myriad of initiatives to address climate change concerns
4 and customer needs. Without resetting our cost structure and enabling economic
5 viability, however, we will not be able to.
6

7 **Q. From a ratemaking perspective, what is needed for the Company to meet the**
8 **demands of the future?**

9 A. Fundamentally, the Company needs cost recovery of on-going operating costs, timely
10 recovery on our capital investments, and a rate of return that provides the right incentive
11 to invest aggressively in Rhode Island. With these in place, the Company is able to make
12 major investments in the state and fully engage in addressing the large policy objectives
13 of the day. While these financial requirements have existed for decades for regulated
14 utilities, the pivotal significance of achieving today's policy directives makes having
15 those basic operational requirements all the more essential to bring our customers and
16 Rhode Island closer to the future. This situation is exacerbated by the now global and
17 intensely competitive market for capital in which we must compete to locate funding to
18 make the investments needed to serve our customers.
19

20 **Q. Regarding the first concern relating to recovery of on-going operating costs, won't**
21 **the Company obtain cost recovery through the rate case?**

1 A. The base rate case is supposed to provide the Company with cost recovery of its on-going
2 operating costs. Assuming that the new rates going into effect on January 1, 2010 cover
3 our costs for the year, there are many factors that make it virtually impossible for the
4 Company to earn its allowed return on equity after the year is over. Our revenues
5 immediately erode by the steady march of inflation and rising costs, particularly capital
6 costs. In the past, load growth revenues mitigated, to some extent, this regulatory lag.
7 However, with aggressive energy efficiency programs designed to eliminate load growth,
8 the Company needs another form of revenue recovery to give us a reasonable opportunity
9 to earn our allowed return. For that reason, we are proposing to address this dilemma
10 with a combination of proposed reconciliation provisions for recovery of uncollectible
11 accounts expense and pension and other post-retirement employee benefits costs, and a
12 proposed revenue decoupling mechanism that includes annual capital and inflationary
13 adjustment mechanisms. These rate mechanisms are critical for us to achieve our
14 objective to provide our customers with reliable and safe service, while remaining
15 financially healthy to attract the capital necessary to invest in the state to achieve its
16 ambitious policy objectives.

17
18 **Q. What is the issue with uncollectible accounts expense?**

19 A. Mr. Wynter gives a more complete picture of the issue in his testimony. In brief, at this
20 time, the Company provides commodity service in the form of Standard Offer Service
21 and Last Resort Service to 99.9% of residential customers, 95% of small business
22 customers, and 80% of medium and large business customers. The percentages for the

1 business customers vary over time, but the residential percentage is fairly steady. As the
2 prices of Standard Offer Service have risen over the years, the amount of commodity-
3 related uncollectible accounts expense has grown substantially. The rising commodity
4 costs, which were not fully anticipated at the time of industry restructuring, are beyond
5 our control and that of our customers, and create financial pressures for both. Our
6 uncollectible accounts expense has grown substantially as a result. From 2004 to 2008,
7 total electric company net-write offs increased from \$5.8 million in 2004 to **\$12.4 million**
8 **in 2008**. Of this, \$3.0 million was related to commodity in 2004, and \$7.9 million was
9 related to commodity in 2008. Yet, under the current rate structure, we are not able to
10 fully recover those costs. At the same time that our uncollectible accounts expense has
11 risen, we must still take into account the needs of the most needy, through limitations on
12 service terminations and other collections efforts that further increase our financial
13 exposure. As a delivery company, we were never supposed to be absorbing risk of
14 uncollectible accounts associated with commodity service. Yet, that is what we
15 experience, and it has a significant impact on the Company. It is plainly unsustainable
16 from a business perspective. To address this financial problem, we are asking the
17 Commission in this case to allow us a full reconciliation of those costs for commodity
18 service.

19
20 **Q. Is the Company making a proposal with regard to delivery-related uncollectible**
21 **accounts expense?**

1 A. Yes. We are concerned that the current steep downturn in the economy, as well as the
2 potential for commodity prices to resume their upward climb, will present a significant
3 challenge to the Company that cannot be met entirely through the collection efforts on a
4 cost-effective basis. This is particularly true given the concerns expressed by many that
5 the Company should be particularly attentive to the impact of shutting off service to
6 customers who are struggling to pay their utility bills as a result of the current economic
7 downturn. To address these concerns while maintaining an approach that is closely in
8 line with the Commission's traditional approach to recovery of delivery-related
9 uncollectible accounts expense, the Company is proposing that the Commission authorize
10 the Company to file for an adjustment to distribution rates that would recover the actual
11 level of delivery-related net write-offs for a given year if the Company demonstrates that
12 it experienced a substantial increase in delivery-related net write-offs in that year because
13 of events beyond its control. Mr. Wynter addresses this mechanism in detail in his
14 testimony.

15
16 **Q. What is the issue with pensions and other post-retirement employee benefits**
17 **(“OPEB”)?**

18 A. Pension and OPEB costs are a large expense on the Company's income statement. These
19 costs are subject to significant volatility that is beyond our control. Two significant
20 factors that affect pension and OPEB expenses are the discount rate assumption used to
21 value the future obligation to pay retirees at present dollars, and the performance of the
22 assets held in the pension and OPEB plan trusts. The discount rate is based on the yield

1 of high quality corporate bonds. These yields change as market conditions change.
2 Small changes in the discount rate can have a large impact on the value of the obligation
3 to retirees, which in turn affects the Company's expense. Likewise, the pension and
4 OPEB plan trusts are invested in equity securities and other financial instruments that
5 fluctuate as market conditions change. These fluctuations also affect pension and OPEB
6 expenses. To address this problem, we are proposing a mechanism to recover pension
7 and OPEB expenses outside of base rates and reconcile these costs to actual revenue
8 billed to customers for these costs, as described in Mr. O'Brien's testimony, and
9 consistent with the treatment the Commission has recently afforded to the Company's gas
10 operations.
11

12 **Q. In light of the fact that National Grid considers itself a leader in energy efficiency**
13 **and for over a decade has been implementing award-winning energy efficiency**
14 **programs in Rhode Island, why does the Company believe decoupling is needed**
15 **now?**

16 A. Energy efficiency is the right thing for all of us to pursue. We know it's good for our
17 customers, communities, and the environment. Ultimately, energy efficiency reduces
18 energy use, resulting in reducing carbon emissions, and will lower consumer costs in the
19 long run. Thus, it's good for the state's economy and its environment.
20

21 As a global entity, National Grid does consider itself to be a leader and we will continue
22 to be so in the future. As I explained elsewhere in my testimony, however, the entire

1 industry is going through another significant transformation, driven by climate change
2 concerns. National Grid is being asked and directed to play an important role in
3 achieving these public policy objectives. Mr. Stout describes in his testimony how we
4 are embarking on a three-year ramp-up of efficiency programs that is designed to double
5 the annual amount of energy efficiency that is achieved in Rhode Island each year. We
6 have enthusiastically embraced this ramp-up in the least cost procurement process in
7 Rhode Island. In embracing these very important public policy objectives, we have been
8 operating on the assumption that our regulators will adopt ratemaking policies that
9 recognize how meeting these objectives works against our financial interest when energy
10 efficiency reduces the revenues we need to operate our business. Revenue decoupling is
11 a policy to assist Rhode Island in reaching its objectives. If we rely on our volume to
12 recover cost in a decreasing volume business environment, we will not recover our cost,
13 and we will put at risk our ability to provide safe, reliable electric service.

14
15 Without question, we owe a duty to our shareholders to assure that we are recovering
16 sufficient revenue to cover our costs, including a reasonable opportunity to earn our
17 allowed return. But the type of energy efficiency ramp-up that we have been supporting
18 is far more than we have ever done in the past. More than merely shaving load growth,
19 the public policy goal is to eliminate it through efficiency. If ratemaking policy in a
20 particular state does not recognize the financial impact on National Grid associated with
21 the successful achievement of this goal, we will be faced with no choice but to reassess
22 whether National Grid can continue to maintain this level of commitment to efficiency

1 and other climate change initiatives in that jurisdiction. Timely recovery of our costs,
2 including capital costs incurred for investing in aging infrastructure is extremely
3 important. Without the appropriate cost recovery, the utility will not be able to operate
4 for long. Thus, the Commission must adopt reasonable ratemaking principles that assure
5 that National Grid's shareholders will not be subsidizing these public policy initiatives.
6 Without them, you will not create the right business environment to attract investment
7 dollars.

8
9 **Q. Isn't it true that the Commission can simply order the Company to do more**
10 **efficiency without decoupling and the other rate mechanisms being proposed in this**
11 **case?**

12 A. In part, this is a legal question that I cannot answer. However, it is my understanding that
13 the legislation implementing the least cost procurement for efficiency resources did
14 contemplate the Commission taking this impact into account. But leaving aside the legal
15 question, there is a practical consideration as well. While a jurisdiction may have the
16 technical option to order a utility to do more efficiency, it would be a mistake to assume
17 that such an order will result in the most effective program. It is far better for the
18 Commission to provide the right ratemaking and incentive signals to encourage superior
19 performance than it is to order the utility to do something that is against its economic
20 interest. The former drives superior results, the latter simply drives minimal compliance.
21 We believe that customers and the environment are far better off if the Company is given
22 the tools and ratemaking signals to reach and stretch for superior performance.

1 **Q. Would you provide a summary of the Company's decoupling proposal?**

2 A. Our decoupling proposal will enable National Grid to aggressively promote and
3 implement all cost-effective energy efficiency and other demand resources. Our proposal
4 also contains two other necessary features. These features address the challenge that
5 decoupling creates by removing load growth revenues that we have always depended
6 upon to help support the business. The first is an annual inflation adjustment on our
7 operating expenses designed to mitigate inflationary cost pressures. The second is a
8 capital adjustment mechanism intended to provide for timely recovery of capital
9 investments. The combination of these features will place National Grid in the position
10 to advance Rhode Island's goals with respect to energy efficiency, infrastructure
11 improvement, and reliable service. Dr. Tierney discusses our decoupling proposal in
12 more detail in her testimony.

13
14 **Q. Why does the Company need timely recovery on its capital investments?**

15 A. As described in the testimony of Mr. Pettigrew, the Company needs to make significant
16 investments in its infrastructure both to maintain the aging system and to upgrade it to
17 deliver public policy objectives for customers. However, as the Commission is well
18 aware, under the ratemaking policies historically in place, capital costs are not necessarily
19 recovered through rates as of the time new investments are made. Rather, the Company
20 earns nothing on its post rate year investments and has no ability to recover a return or
21 depreciation or any increase in property taxes associated with such incremental
22 investment until the next rate case. During a time of heavy investment in infrastructure

1 pivotal to meeting customer obligations and achieving public policy objectives, this is a
2 virtual guarantee that the Company cannot earn the allowed rate of return, absent other
3 revenue increases or substantial cost reductions to offset the increased capital costs.
4 National Grid has been investing heavily in Rhode Island. Over the last several years, the
5 Company has made significant capital investments which we are not recovering. We will
6 continue investing as long as we have the ability to recover capital and the associated
7 return on investment is not impeded by the traditional ratemaking process.
8

9 **Q. What rate of return on equity are you proposing?**

10 A. We are proposing a return on equity of 11.6%. Return on equity is the fundamental
11 benchmark that can be objectively assessed by investors to compare one investment
12 opportunity to another. It is perhaps the single most important factor in determining
13 investors' perceptions regarding the level of support by regulators for a given utility.
14 Without a sound return on equity and a regulatory structure to earn it, we will not be able
15 to attract and maintain investors and debt to fund our operating and capital needs. As I
16 stated earlier, National Grid is very interested in investing in the state, but it is difficult to
17 justify that level of investment to shareholders if they perceive that they cannot earn a
18 solid return on equity compared with what they could earn in other jurisdictions.
19

1 **VI. Conclusion**

2 **Q. Can you please summarize your testimony?**

3 A. Certainly. National Grid's overall vision is to be the foremost electric company,
4 providing efficient, safe, reliable service, and an innovative leader in energy
5 management, safeguarding our global environment for future generations. This dovetails
6 well with public policy regarding energy and climate change, which is redefining the role
7 of the utility to address many of the large current challenges. Utilities play a central role
8 in furthering this public energy policy. With the filing of this rate case, the Company
9 takes an important step towards creating a sustainable future. This is a journey that we
10 are taking together with the Commission and other stakeholders. We share the same
11 goals of providing (1) safe, reliable, and efficient energy delivery to our customers, (2)
12 fulfilling the broad objectives of state and federal energy policy; and (3) addressing the
13 specific issues of particular customers, such as vulnerable low-income residential
14 customers or local businesses that, with appropriate assistance, could increase jobs in our
15 service area. In a sense, we are modernizing the regulatory compact for the twenty-first
16 century. Our rate proposal will provide us with cost recovery of on-going operating
17 costs, timely recovery on our capital investments, and a rate of return that provides the
18 right incentive to invest aggressively in Rhode Island. With these in place, the Company
19 is able to make major investments in Rhode Island and fully engage in addressing the
20 large policy objectives of the day. We are proud to operate in Rhode Island, providing
21 service to customers and working with public and private stakeholders to meet the many
22 challenges that face us.

1 **Q.** **Does this conclude your testimony?**

2 **A.** Yes, it does.

THE NARRAGANSETT ELECTRIC COMPANY

d/b/a NATIONAL GRID

Docket No. R.I.P.U.C. _____

Witness: Pettigrew

PRE-FILED DIRECT TESTIMONY

OF

JOHN PETTIGREW

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1 **I. Introduction and Qualifications**

2 **Q. Mr. Pettigrew, please state your name and business address.**

3 A. My name is John Pettigrew. My business address is 40 Sylvan Road, Waltham, MA
4 02451.

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

7 A. I am the Executive Vice President and Chief Operating Officer (“COO”) of Electricity
8 Distribution, Operations and Generation for Narragansett Electric Company d/b/a
9 National Grid, the (“Company”)¹, as well for Massachusetts Electric Company and
10 Nantucket Electric Company d/b/a National Grid, which operate in Massachusetts,
11 Granite State Electric Company d/b/a National Grid, which operates in New Hampshire,
12 and Niagara Mohawk Electric Company d/b/a National Grid, operating throughout
13 upstate New York. I am also responsible for operating the transmission, distribution and
14 generation system on Long Island, New York as part of a service agreement with the
15 Long Island Power Authority. As Executive Vice President and COO of National
16 Grid plc’s U.S. Electric Distribution organization, I oversee approximately 6,000
17 employees and \$11.7 billion of infrastructure assets serving over 4.6 million customers in
18 the Company’s U.S. service areas. In that capacity, I am responsible for all aspects of the
19 electric distribution system serving Rhode Island customers, including the asset
20 management, engineering, design, construction, operations and maintenance of the
21 Company’s electric distribution facilities.

¹ 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.”

1 **Q. Would you please describe your educational background and business experience?**

2 A. Yes. I earned a Bachelor of Science degree in Economics from Cardiff University in
3 Wales, United Kingdom in 1990. I also earned a Master of Science degree in
4 International Economics and Banking from Cardiff University in 1991. After initially
5 beginning my career in the banking industry, I joined National Grid as an Economist in
6 1991. Since 1991, I have held various positions relating to regulation, engineering,
7 operations, commercial and energy trading. Immediately prior to my current position, I
8 held the position of Director of Asset Management responsible for the asset management,
9 engineering, design, and operations and maintenance of National Grid's United Kingdom
10 ("UK") gas and electricity transmission network. I became Executive Vice President and
11 COO of National Grid's U.S. electric distribution operations in 2007.

12
13 **II. Purpose of Testimony**

14 **Q. What is the purpose of your testimony?**

15 A. The purpose of my testimony is to explain the significance of this proceeding for
16 National Grid's Electric Distribution Operations ("EDO"). EDO is responsible for
17 managing the assets, and constructing, operating and maintaining the infrastructure
18 necessary to provide safe and reliable electric service to customers. Meeting this service
19 obligation involves significant operating costs and a capital-intensive effort to maintain,
20 replace and reinforce aging infrastructure on an ongoing basis, as well as to respond to
21 the unavoidable impacts of major weather events. As a result, the safety and reliability of
22 electric service is tied directly to the level of operations funding and capital investment
23 that is available to the Company to conduct these activities. Accordingly, it is imperative

1 for the Company to have access to the financial resources necessary to operate and
2 maintain and reinforce the system on a day-to-day basis. National Grid's proposals in
3 this case are designed to serve this objective.
4

5 **Q. How is your testimony organized?**

6 A. My testimony is organized as follows: Sections I and II provide an introduction and set
7 forth the purpose of the testimony, respectively. Section III presents National Grid's
8 operating philosophy and objectives for the safe, reliable and efficient delivery of
9 electricity to customers. Section IV provides an overview of EDO's Annual Work Plan
10 and discusses the Company's initiatives to inspect and maintain the distribution system
11 and to replace aging infrastructure. Section IV also reviews the Company's proposal
12 relating to vegetation management, which is a critical issue in terms of maintaining and
13 improving system reliability. Section V reviews National Grid's capital budgeting
14 process and ongoing efforts to gain efficiencies and control costs. Section VI describes
15 the basis for the Company's ratemaking proposals on capital investment and rate year
16 operations and maintenance ("O&M") costs. Lastly, Section VII sets forth an analysis
17 and discussion of the Company's facilities consolidation plan.
18

19 **Q. Before you continue, would you please provide a brief overview of the**
20 **characteristics of the operating system?**

21 A. Yes. In Rhode Island, National's Grid's electric service territory encompasses
22 approximately 1,070 square miles in 38 cities and towns. Altogether, National Grid
23 serves approximately 475,000 electric customers in Rhode Island. To serve customers,

1 the Company utilizes more than 100 distribution substations supplying approximately
2 480 distribution and sub-transmission feeders. Over 82 percent of the 6,000 miles of
3 distribution and sub-transmission circuits on the Company's system are overhead
4 facilities operating at voltage levels ranging from 4 kV to 35 kV. Approximately 85
5 percent of the distribution and sub-transmission system operates in the 15 kV class range
6 (12.47 kV to 13.8 kV).
7

8 **III. Operating Philosophy and Objectives**

9 **Q. What are National Grid's overriding corporate objectives as an energy delivery**
10 **company?**

11 A. As an energy delivery company, National Grid's fundamental goal is to provide safe and
12 reliable electric service to customers. In recent years, achieving this goal has become a
13 significant challenge because of the increasing focus on replacing and reinforcing aging
14 delivery infrastructure throughout the electric delivery system. Looking forward, these
15 challenges will increase as a result of public policies and legislation advancing the
16 implementation of new distribution technologies that require substantial investment by
17 electric distribution companies, as well as a need to support societal efforts on climate
18 change and environmental issues.

19 In light of these and other business challenges existing in the marketplace, National Grid
20 is deeply committed to the delivery of energy services to customers, with safety,
21 reliability and efficiency as the value touchstones around which the Company's efforts
22 are organized. All levels of the National Grid organization are engaged in an effort to

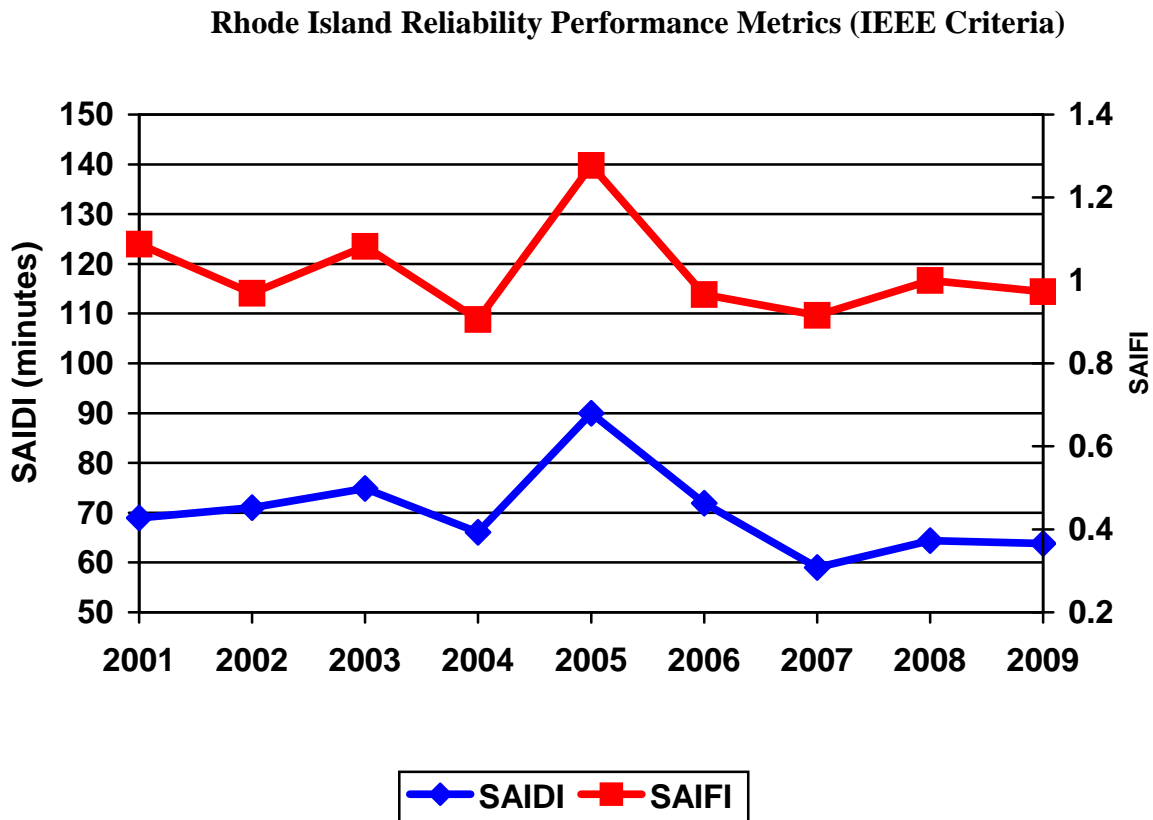
1 establish a more focused business model that is based on a performance-driven culture,
2 identifying and deploying best practices, while ensuring that the right people are in the
3 right roles and that, at all times, the interests of customers are kept as the key priority.
4 This effort reflects the recognition that the Company's viability as a successful business
5 enterprise is inherently dependent upon the achievement of high levels of customer
6 satisfaction and service reliability. Therefore, this is the principle that guides EDO's
7 operating plans.
8

9 **Q. What are the Company's specific performance objectives for EDO?**

10 A. In order for National Grid to meet its overriding corporate objectives, there are specific
11 strategic objectives that EDO must pursue. These objectives center on improving the
12 reliability of service to customers, achieving a greater level of operational efficiency in
13 order to contain rising O&M and capital costs, protecting the safety of employees and the
14 general public, and safeguarding the environment, as well as the creation of a more
15 satisfactory overall customer experience. EDO is also focused on the recruitment and
16 training of employees so that the skills necessary to safely and reliably operate and
17 maintain the electric system are available.
18

19 To meet its reliability objectives, the Company has developed a work plan that requires a
20 substantial ramp-up of system maintenance and capital investment to maintain and
21 improve the system. This ramp-up is a necessary precursor to the achievement of
22 significant improvement in safety and reliability performance and the Company's recent
23 efforts in this regard are already yielding results. In 2008, National Grid met its

reliability performance targets for the third year in a row. With respect to the System Average Interruption Frequency Index (“SAIFI”) metric, the Company’s annual performance observation was 1.00 at year end, which is below the 1.05-to-1.18 penalty band, and also represents performance comparable to the average SAIFI experienced since 2001. With respect to the System Average Interruption Duration Index (“SAIDI”), the Company’s annual performance observation was 64.4 minutes at year end, which is below the 71.9- to- 89.9 penalty band, and also represents performance better than the average SAIDI experienced since 2001. This trend is also shown in the chart below:



National Grid’s reliability performance in Rhode Island is on target with similarly designed top-performing electric distribution companies in the Northeast U.S. Therefore,

1 the Company's efforts are focused on vigilant and efficient investment in the network to
2 sustain the current high level of reliable performance in the years ahead.

3
4 As National Grid moves to increase its efforts on system maintenance and capital
5 investment, it is also focused on containing annual O&M costs and making cost-effective
6 capital investments. The Company recognizes that long-term efficiency gains are vital to
7 its operations because the Company's resources (and those of its customers) are not
8 unlimited. Given the substantial level of investment that is necessary to maintain the
9 electric distribution system, it is critical that the Company put its valuable resources to
10 work in an efficient manner. Therefore, National Grid is working to improve its
11 operating approach through changes to its organizational structure that will, among other
12 things, increase its efficiency and effectiveness through the creation of "centers of
13 excellence" for key capabilities and automation of certain work activities.

14
15 The Company also bears responsibility for ensuring the safety of employees and the
16 protection of the environment. National Grid believes that a focus on operational
17 excellence results in a safer environment for both employees and the general public. To
18 that end, the Company is working to improve environmental compliance performance to
19 prevent pollution, reduce the risk of environmental incidents and comply with legal and
20 regulatory requirements.

21
22 To meet environmental objectives, EDO is developing a 5-year rolling work plan that
23 will improve the timely review and updating of Spill Prevention, Control and

1 Countermeasure (SPCC) Plans for over 100 substation locations in Rhode Island.
2 Substations are also inspected bimonthly for equipment issues that may affect the
3 environment such as leaking equipment, as well as other facilities that have the potential
4 to experience releases such as oil containment facilities. Equipment containing SF6 gas
5 is monitored for leaks and leaks are mitigated as part of National Grid's SF6 Mitigation
6 Plan. Through the use of emerging technologies such as a camera using ultraviolet
7 technology, locations and repairs to equipment leaking SF6 is addressed on a more
8 expedited basis. Lastly, National Grid joined the U.S. Environmental Protection Agency
9 Voluntary SF6 Reduction Partnership in 2004 and continues to report reductions on a
10 yearly basis to the EPA.

11
12 To meet safety objectives, the Company is implementing a series of initiatives to enhance
13 the safety of employees and the general public. For enhanced employee safety, National
14 Grid has established nine subcommittees focusing on all aspects of EDO, including safety
15 on overhead, underground, substation, switching and engineering activities. The
16 objective of these subcommittees is to establish a working environment with zero injuries
17 and zero-work-related illnesses. National Grid's efforts to enhance public safety are
18 equally robust and the Company is focused on reducing the risks associated with its
19 distribution system infrastructure.

20
21 Lastly, National Grid is focused on operational excellence to meet its public-service
22 obligations. Accordingly, EDO is organizing its operations to ensure the customer
23 experience is characterized by transactional ease, consistency and service dependability.

1 To meet this objective, EDO is working on the implementation of a series of initiatives
2 that will improve the Company's service dependability and interaction with customers.
3

4 **Q. What is your vision for establishing the Company's Annual Work Plan?**

5 A. In terms of the Annual Work Plan, National Grid is shifting its operating focus from a
6 reactive, repair-oriented approach to one driven by well-defined asset management
7 principles. This approach is founded on a proactive inspection and replacement-oriented
8 approach. Traditionally, electric distribution utilities have conducted infrastructure
9 maintenance and replacement activities based on the results of periodic engineering
10 studies of asset performance or known operating deficiencies, rather than on the basis of
11 data collected from all-encompassing inspection routines. Therefore, like other electric
12 distribution companies, National Grid designed its Annual Work Plan to complete the
13 upgrade or replacement of specific infrastructure components, as identified through
14 periodic engineering studies or as a result of discrete performance deficiencies.
15

16 National Grid believes that this approach is less effective where strategies and tactics to
17 extend the life of distribution infrastructure are exhausted and a significant level of
18 infrastructure is reaching the end of its useful life all at the same time. This is the
19 situation that currently confronts National Grid and other electric distribution companies.
20 As a result, National Grid has adopted asset-management principles focused on
21 developing specific strategies to optimize the utilization of assets and address the
22 increasing level of aging infrastructure. Without the implementation of a new approach,
23 and the coincident availability of funding for the substantial increase in work that will be

1 required, the safety and reliability of the distribution system cannot be maintained at the
2 level expected by customers.

3
4 As I describe in more detail below, the Company is meeting the challenge posed by aging
5 infrastructure by transitioning to a new structure for its Annual Work Plan. Specifically,
6 the Annual Work Plan is now being developed consistent with accepted asset
7 management principles with the resulting Asset Strategies designed to strengthen the
8 performance and resiliency of the electric-distribution system, consistent with EDO's
9 performance objectives. "Asset Strategies" are systematic, coordinated activities and
10 practices that are designed to result in the optimal management of assets and asset
11 systems over their respective life cycle. Each major asset class and asset system will be
12 the target of an Asset Strategy. Asset Strategies will encompass a series of inspection,
13 maintenance and replacement programs designed to achieve specific operating objectives
14 for the respective asset class or asset system.

15
16 **Q. Can you provide an illustration of your statement regarding aging infrastructure on**
17 **the Company's system?**

18 A. Yes. As shown in Figures NG-JP-1 and NG-JP-2, over half of the distribution station
19 breakers in use on the Company's system are at least 36 years old and over half of the
20 distribution station transformers are at least 36 years old. Moreover, the average age of
21 distribution and sub-transmission poles on the Company's system is 34 years and about
22 50 percent of the distribution line transformers are over 18 years old. Using an average
23 useful life of 30 to 40 years for distribution equipment indicates that much of the

1 Company's infrastructure will need replacement in the near term even though it may be
2 functioning well at the present time.

3
4
5 **Figure NG-JP-1**

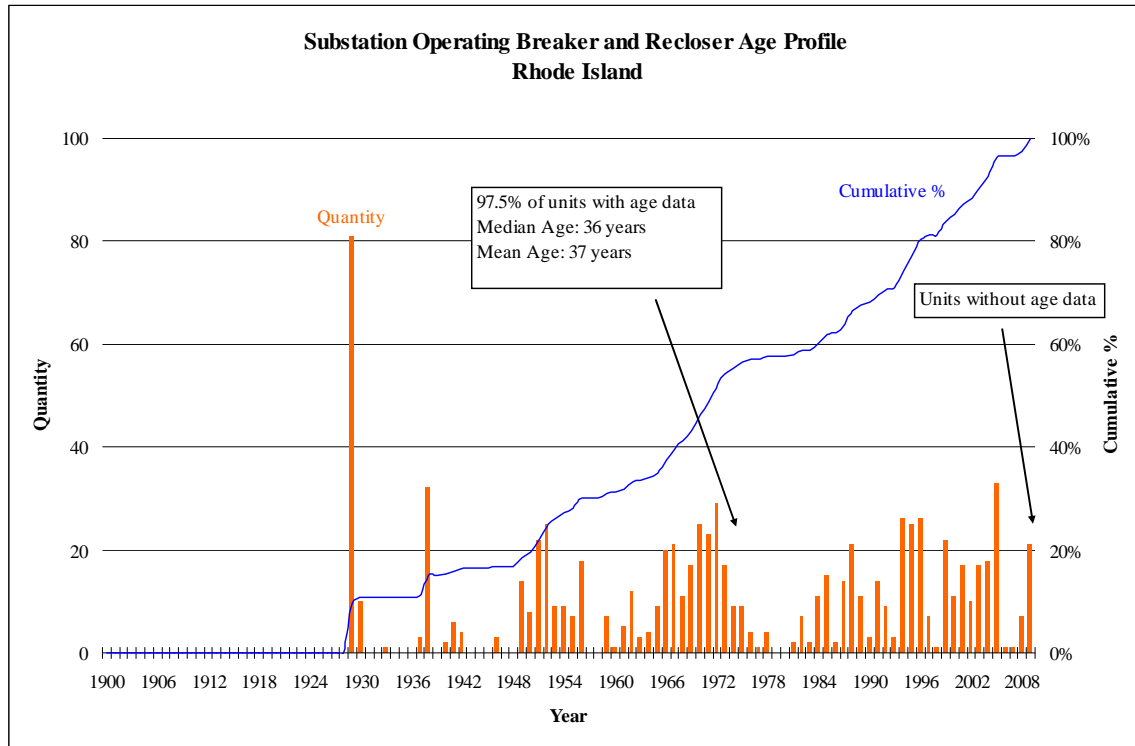
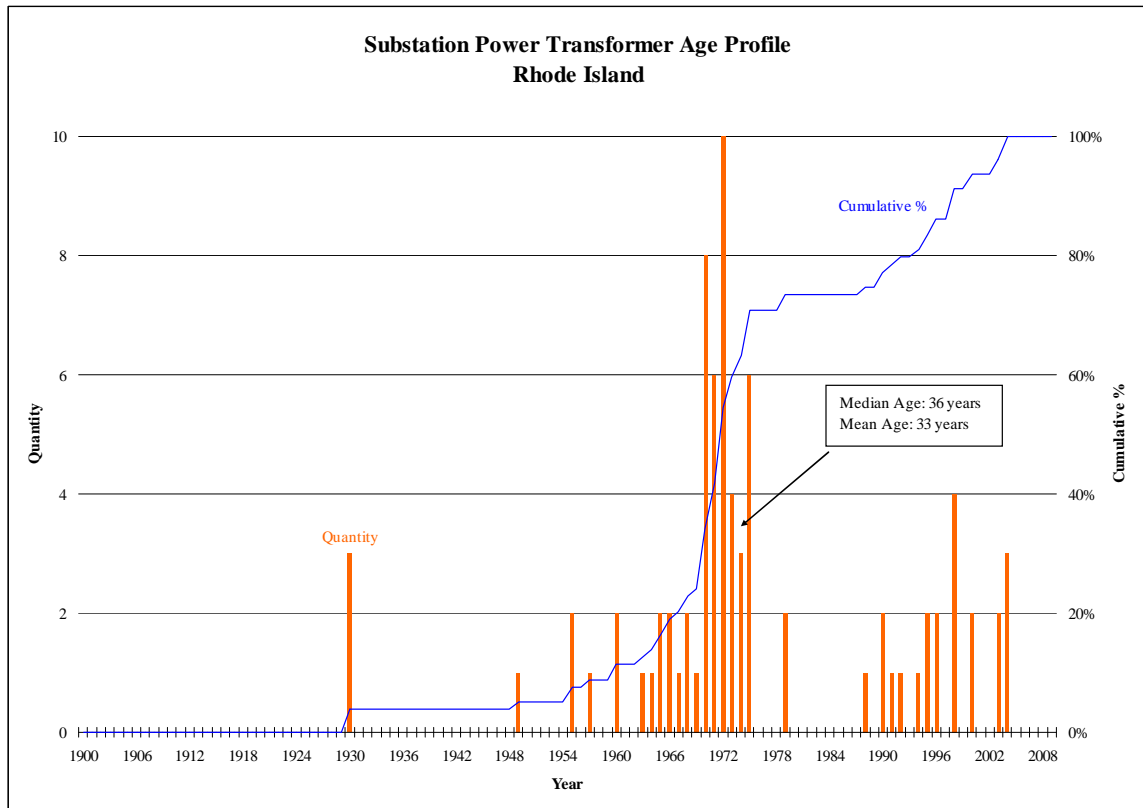


Figure NG-JP-2



Although the age of a system component is not necessarily indicative of its condition or usefulness in serving customers, it is significant that a large segment of the component population is reaching the end of its anticipated useful life.

Q. How does the Company plan to conduct the Asset Management process?

A. National Grid has a global initiative underway to adopt best-in-class Asset Management policies and procedures. National Grid is proactively seeking PAS 55 certification in all of its lines of business – a milestone that has been achieved by Electric Distribution Operations. PAS 55 certification allows National Grid to benchmark its asset-management practices against other lines of business within National Grid as well as against other companies. PAS 55 is a universal benchmark published by the British

1 Standards Institution (BSI) for the optimal management of physical assets. The PAS 55
2 framework assists in establishing consistency throughout EDO and provides a formal
3 governance mechanism for asset management. As a result, certification aids Electric
4 Distribution Operations in achieving its strategic objectives of safety, reliability,
5 customer service and efficiency.
6

7 **Q. Why did National Grid choose PAS 55 as its framework for its asset-management**
8 **process?**

9 A. PAS 55 is an abbreviation for the Publicly Available Specification for “Optimal
10 Management of Physical Assets.” This is an industry established minimum level of
11 competency and processes to insure a company’s asset management objectives are
12 fulfilled efficiently and effectively. PAS 55 promotes value for all stakeholders,
13 including customers, investors, regulators or other policymakers. PAS 55 provides a
14 framework in which National Grid will be able to create an optimized asset base that
15 refines performance and cost in a way that supports the Company’s overall operating
16 strategy. PAS 55 helps to identify and enable the feedback of all stakeholders in the
17 development of systematic processes to support asset management throughout the
18 Company. PAS 55 certification has been achieved by organizations operating in several
19 sectors, including electric utilities, natural gas, municipal governments, railways and
20 water. The use of PAS 55 is valuable to National Grid as it works to benchmark
21 performance and promote best practices.
22

1 **Q. When did National Grid's Electric Distribution Operations' department receive**
2 **PAS 55 certification?**

3 A. A Lloyd's Register Group company awarded approval to the Publicly Available
4 Specification for Asset Management (PAS 55) to National Grid's electricity distribution
5 operation for its Upstate New York and New England Distribution and Sub-transmission
6 assets during the last quarter of 2008. The approval follows the certification for National
7 Grid's Transmission organization in the U.S. in 2007 and represents a significant
8 achievement in National Grid's service commitment to its customers. In the U.S.,
9 National Grid is currently the only utility company that has received PAS 55 certification.
10 National Grid has shared information on the benefits and value of PAS 55 certification at
11 several conferences.

12
13 **Q. Will the work activities that are performed in fulfillment of Asset Strategies differ**
14 **from work performed in the past?**

15 A. Yes and no. For most Asset Strategies, the resulting work activities that are ultimately
16 performed are the same activities performed in the past *on a component-by component*
17 *basis* in response to deficient operating performance or component failure. The Asset
18 Management approach however, is a proactive, long-term view that involves the
19 establishment of a comprehensive plan for particular classes of distribution assets or asset
20 systems based on inspection data gathered from the field regarding asset conditions.
21 Under the revised approach, the Company will take a more holistic approach to capital
22 spending, in that capital investment will be informed and motivated by inspection data,
23 field conditions and systematic repair and replacement schedules, rather than arising from

1 performance failures or deficiencies. Although the capital requirements and O&M costs
2 associated with a comprehensive, systematic repair and replacement effort will be greater
3 than historical levels, the projects and activities in which the Company will invest capital
4 and incur O&M expenses are largely the same types of work as undertaken in the past.

5
6 That said, “new” work activities will arise from the implementation of a new inspection
7 program for overhead and underground distribution infrastructure. Specifically, the
8 Company is planning to implement a new Inspection and Maintenance (“I&M”) Strategy,
9 which is designed to provide the Company with comprehensive system-wide information
10 on the condition of overhead and underground system components. With the
11 implementation of the I&M Asset Strategy, the Company will begin inspecting overhead
12 and underground distribution infrastructure on a five-year cycle with 20 percent of the
13 system completed each year. Systematic, comprehensive inspections are not currently
14 conducted as part of the Annual Work Plan because investment decisions are not
15 currently made on the basis of a holistic assessment of system conditions.

16 Implementation of the I&M Strategy will allow the Company to assess the condition of
17 distribution assets or asset systems on a class-specific or system-specific basis and to
18 structure a proactive replacement plan for each asset or asset system. Although this
19 approach will require incremental funding (as compared to the test year in this case), it is
20 necessary to both maintain and improve the reliability of electric service on a cost-
21 effective basis. Ultimately, the revised approach will create a longer-term planning
22 horizon that will provide the opportunity for more efficient procurement and allocation of
23 needed resources. It will also create a higher level of discipline in maintaining system

1 components that do not need immediate replacement. Most importantly, the beneficial
2 impact on the safety and reliability of the system will be discernible by customers
3 because the operating integrity will be raised and maintained at a relatively higher level.
4

5 **Q. What is your overall vision for EDO in terms of an end-state organizational**
6 **structure?**

7 A. National Grid is working to move away from an operating model that is organized around
8 regional or geographic areas, and instead, to institute an approach founded on key
9 capabilities. This shift in approach will ensure that a strong and consistent focus is
10 placed on the systems, people and processes that support a high level of performance on
11 customer service, safety and reliability. For example, National Grid is working to
12 centralize administrative support services for field operations, which will remove
13 administrative and transactional burdens from field supervisors and increase the amount
14 of time that they spend in the field. Centralizing the transactional work will facilitate
15 standard and simple processes that will enhance the accuracy, timeliness and
16 completeness of information related to work performed, assets in service and company
17 records. Ultimately, the Company will establish “centers of excellence” for every aspect
18 of the electric-operations business, including customer connections, new construction,
19 design, network operations and emergency response. The goal of this reorganization will
20 be to maximize the productivity of skilled resources and to create a standardized and
21 simplified operating process that will enable the Company to deliver a consistent
22 customer experience. The reorganization will also improve asset management and

1 capital-planning efforts, while advancing a “total safety” culture that provides for the
2 efficient delivery of electricity to the customer.
3

4 **Q. Is there a relationship between the Company’s initiatives to redesign the Annual**
5 **Work Plan and planned changes to EDO’s organizational structure?**

6 A. Yes. As I explained above, EDO’s performance objectives center on maintaining and
7 improving the reliability of service to customers, achieving a greater level of operational
8 efficiency in order to contain rising O&M and capital costs, safeguarding the safety of
9 employees, the general public and the environment, as well as the creation of a more
10 satisfactory overall customer experience. To achieve these objectives, EDO must also
11 focus on the recruitment and training of a skilled workforce to execute the Annual Work
12 Plan in a safe manner. Therefore, the changes underway for the Annual Work Plan and
13 for the organizational structure are designed to work in tandem to further EDO’s
14 overarching objectives of maintaining and enhancing reliability, improved efficiency and
15 improved customer satisfaction.
16

17 **IV. Annual Work Plan**

18 **Q. Would you please describe the general categories of work activities that are**
19 **undertaken each year by EDO?**

20 A. Each year, National Grid develops an Annual Work Plan to maintain and improve the
21 safety and reliability of the distribution system. Regardless of the operating philosophy
22 adopted by the Company, there are basic work activities that are required to ensure the
23 safety and reliability of service, including the maintenance, repair and upgrading of

1 distribution facilities and/or the installation of new facilities to meet load growth or the
2 addition of new customers. The specific combination of work undertaken by the
3 Company in any given year is a function of both the internal investment plan and external
4 drivers.

5
6 Specifically, all EDO work activities fall into four categories: (1) activities to address
7 system capacity needs and performance; (2) activities to address asset conditions;
8 (3) activities required by statutory or regulatory requirements, and (4) activities required
9 to address damage/failures. Generally, activities conducted in the categories of statutory
10 or regulatory requirements and damage/failure are dictated by circumstances external to
11 the Company. Internal capital-spending priorities relating to system capacity or asset
12 replacements arise from the investment-planning strategy employed by the Company.
13 These overall work categories are more generally described as follows:

- 14 **1. System Capacity and Performance:** Work in this category is aimed at
15 alleviating loading constraints and increasing capacity in specific areas to improve
16 the reliability of service.
- 17 **2. Asset Condition:** Asset condition projects are aimed at replacing or upgrading
18 system elements such as overhead lines (including wood poles), underground
19 cables and substation equipment. Work in this category includes feeder
20 reinforcement or “hardening,” as well as the replacement of overhead,
21 underground and substation equipment.

1 **3. Statutory or Regulatory Requirements:** Upgrade projects may be required to
2 respond to, or comply with statutory or regulatory mandates. For the most part,
3 the scope and timing of this work is dictated by others and is non-discretionary for
4 the Company. These items include: New Business Residential, New Business
5 Commercial, Outdoor Lighting, Public Requirements, Third Party Attachments
6 and Land Rights. Other work activities include Transformer Purchase and
7 Installation and Meter Purchase and Installation, which are activities that arise
8 from new business installations and other projects included in this category.

9 **4. Damage/Failure Projects:** Repair or upgrade projects may be undertaken to
10 restore power as a result of damage or equipment failure on an as-needed basis.
11 Damage may be caused by storms, vehicle accidents, vandalism or deterioration,
12 among other causes.

13
14 **Q. What are the factors that drive the Company's investment decisions in work**
15 **categories other than Statutory or Regulatory Requirements and Damage/Failure?**

16 **A.** As discussed above, the Company is in the process of transitioning to a revised Asset
17 Management approach, which relies on a holistic, longer-view assessment of assets and
18 asset systems to inform capital-investment decisions. To institute this new approach, the
19 Company conducted an assessment of each major asset class and asset system. The
20 assessment focused on the identification of specific susceptibilities for assets and asset
21 systems and the development of potential remedies. To date, the Company has
22 developed strategies for individual distribution asset classes based on EDO's core
23 objectives of maintaining and achieving higher levels of safety, reliability, efficiency and

1 environmental responsibility. The Asset Strategies that are currently operative reflect
2 differing levels of maturity, with most Asset Strategies encompassing a combination of
3 historical approaches and new objectives for performance, repair and replacement. To
4 guide investment decisions, the Company uses a risk-scoring system that factors in the
5 contribution of each Asset Strategy to the objectives of safety, reliability, efficiency and
6 environmental responsibility.

7
8 **Q. Would you please describe some of the key Asset Strategies that drive the Annual**
9 **Work Plan?**

10 A. Yes. EDO conducts various Asset Strategies through the Annual Work Plan for the
11 distribution system addressing: (1) overall system application, (2) the overhead system,
12 (3) the underground system, and (4) distribution substations. Below, key Asset Strategies
13 included in each of the aforementioned areas will be discussed.

14
15 **OVERALL SYSTEM APPLICATION**

16 **▪ Capacity Planning Strategy**

17 The Company reviews distribution feeder and substation loadings on an annual basis to
18 evaluate whether these facilities are operating within their normal ratings. To perform
19 this review, the Company prepares a forecast of anticipated load additions and combines
20 the forecast with historical data to determine where and when capacity constraints are
21 expected to develop. The Company then identifies projects to reconfigure or improve the
22 system to ensure load can be served during peak-demand periods. In 2008, the Company
23 focused on the identification of a load-relief plan for all facilities that were projected to

1 exceed 100 percent of normal (i.e., maximum peak loading allowed assuming no system
2 contingencies) capability. Going forward, the Company anticipates focusing on
3 mitigating the impact of single-contingency events. Capital replacements identified
4 through this Asset Strategy are typically large in magnitude – relating primarily to the
5 replacement or expansion of substation facilities. However, these projects ultimately
6 have a significant benefit in terms of improved system flexibility and improved
7 reliability, customer service and efficiency.

8
9 ■ Distribution Line Transformer Strategy

10 The Company has established a proactive load-based replacement program for
11 distribution line transformers. Transformer loading will be reviewed annually using
12 reports generated by the Company's GIS system. Transformers with demands exceeding
13 specified load limits will be investigated and overloaded units will be replaced with a
14 larger unit or will have load relieved via installation of a second transformer. Condition-
15 based replacement will occur based on the results of the I&M Program. The Strategy
16 supplements replacements that are performed during customer-service upgrades, public-
17 requirements projects, and system-improvement projects. This Strategy will help to
18 maintain units in service until recurring load reviews or visual and operational inspection
19 dictate otherwise. The replacement of overloaded facilities helps to avoid customer
20 outages.

OVERHEAD SYSTEM

▪ Vegetation Management Strategy

The Vegetation Management Strategy is designed to achieve two goals: first, to reduce the number and magnitude of vegetation-related interruptions occurring on distribution circuits, and second to improve public safety by minimizing the potential for public contact with energized conductors or for electrical fires in trees and bordering vegetation.

The program is structured to create and maintain clearance between energized distribution conductors and vegetation, especially tree limbs. In addition, the hazard tree program is intended to minimize the frequency and damaging effect of large tree and tree limb failures from along side and above the Company's overhead primary distribution assets. In Rhode Island, the Company will employ a four-year cycle length for distribution circuit pruning. This strategy is critical for safety and reliability purposes.

▪ Feeder Hardening Strategy

The Feeder Hardening Strategy and associated work activities are designed to specifically address deteriorated overhead equipment and lightning-related interruptions which are two major drivers of feeder-reliability issues on distribution feeders. "Feeder Hardening" activities are undertaken to reinforce, repair or replace components of overhead circuits that have a significant potential to improve reliability. The Feeder Hardening Strategy has been in place and executed since 2007 and will be integrated into the new I&M Strategy in FY2011. The Company is integrating the Feeder Hardening Strategy with the new I&M Strategy because the I&M process will allow for a more systematic approach involving the total population of feeders, rather than addressing reliability on a reactive

1 feeder-by-feeder basis. Under the I&M Strategy, the number of feeders that are
2 inspected, repaired and that have components replaced during a given year, would be
3 substantially increased over historic levels.
4

5 ▪ Distribution Line Reclosers Strategy

6 The intent of the Distribution Line Reclosers Strategy is to install at least one recloser on
7 every 15kV class radial feeder with significant overhead three-phase exposure (more than
8 10 miles). Reclosers are designed to isolate down-stream faults caused by events like
9 falling trees, thereby limiting the outage to smaller segments of a feeder. Thus, the
10 installation of distribution line reclosers minimizes the number of customers affected by a
11 down-stream fault.
12

13 ▪ Potted Porcelain Cutout Strategy

14 Fuse cutouts provide over-current protection for the electric distribution system. National
15 Grid installed porcelain cutouts in the early to mid-1980s through early 2001, during
16 which time potted porcelain cutouts were the style used most extensively in the utility
17 industry. Beginning in 2006, National Grid adopted a policy of replacing all potted
18 porcelain cutouts on the Company's system. Beginning in FY2011, remaining potted
19 porcelain cutouts will be identified and eliminated as part of the I&M Strategy. The
20 elimination of potted porcelain cutouts reduces potential safety hazards and will increase
21 reliability as measured by SAIDI/SAIFI.
22

1 ▪ Wood-Pole Strategy

2 The intent of this strategy is to provide an approach for managing distribution and sub-
3 transmission utility poles. Wood poles are a large asset class and are the backbone of the
4 overhead system. The pole replacement strategy provides for the timely replacement of
5 any visibly damaged or deteriorated asset prior to the next inspection cycle. Beginning in
6 FY2011, the results of inspections conducted under the I&M Strategy will be used to
7 identify replacement candidates based on asset condition. Pole replacement prior to
8 failure provides an incremental public safety benefit and avoids the potential problems
9 related to dielectric fluid releases where transformers are located on replaced poles. In
10 addition, the programmatic and predictable replacement of poles will facilitate long-term
11 budgeting, packaging of work for internal and/or external crews, and combining pole
12 replacement with line rebuilds or voltage conversions.

13
14 **UNDERGROUND SYSTEM**

15 ▪ Manhole and Vault Strategy

16 Beginning in FY2011, manhole and vault inspections will be conducted through the I&M
17 Strategy. This Strategy helps to avoid structural failures and identify potential equipment
18 failures that could affect the public safety or service reliability.

19
20 ▪ Oil-Fused Cutout Strategy

21 The Company has identified the replacement of Oil Fuse Cutouts (“OFCs”) and other
22 older style submersible oil switches as important to improve the safety and reliability of
23 the system. OFCs are fusing and switching devices used primarily in 4kV underground

1 distribution areas. These devices were first designed and installed in the pre-WW I era
2 and National Grid has discovered operability problems with these system components.
3 The Strategy is to remove all OFCs on the system, thereby eliminating the safety risk and
4 environmental risk associated with this equipment due to potential operability/failure
5 issues and oil releases, respectively. The elimination of OFCs will increase the reliability
6 of electric service and will reduce switching time during cable failures. As of the end of
7 fiscal year 2009, all OFC's have been removed in Rhode Island.

8 9 **SUBSTATIONS**

10 **▪ Distribution Substation Transformer Strategy**

11 The overall intent of this Strategy is to minimize transformer failures, ensure that the
12 transformer population is capable of performing the requisite function for the system, and
13 to provide for replacement of units that are likely to fail. The average age of the
14 distribution power transformer population is 33 years, with 9 percent of the population
15 being greater than 50 years old and 4 percent of the population being greater than 60
16 years old. Although age is not the sole indicator of asset condition, it is a useful proxy
17 because component aging and subsequent mechanical damage susceptibility is
18 recognized as a consequence of the loss of polymerization degree in oil permeated paper,
19 which is a key component of a distribution power transformer. Distribution power
20 transformers, similar to transmission power transformers, use dissolved gas analysis and
21 subsequent test and assessment approaches to develop asset condition ranking. The
22 integrity of these system components is critical in terms of providing reliable service to
23 customers because transformer failures can affect a large number of customers.

1 ▪ Distribution Substation Circuit Breaker Strategy

2 The Company's Strategy for substation circuit breakers and reclosers is based upon a
3 mixture of maintenance, refurbishment and replacement of those assets that are less safe
4 or less reliable due to poor condition, obsolescence or availability of spare parts.

5 Ongoing breaker maintenance and inspection generates useful information on the
6 condition of circuit breakers installed on the system. Through this Strategy, the
7 Company has identified a number of circuit breakers in need of replacement.

8
9 **Q. How would the new Inspection & Maintenance Strategy fit into the Annual Work**
10 **Plan?**

11 A. As stated above, the Company is looking to initiate the new I&M Strategy in 2009. The
12 I&M Strategy would involve the creation of a comprehensive five-year cycle inspection
13 and maintenance program for all overhead, underground, and sub-transmission line
14 assets. Through the I&M Strategy, the Company would perform a number of activities
15 not performed in the 2008 test year in this proceeding. The incremental activities would
16 include inspections of overhead distribution infrastructure on a five-year cycle;
17 inspections of underground transformers and internal switchgear on a five-year cycle;
18 sub-transmission ground-base patrol inspections on a five-year cycle; sub-transmission
19 aerial helicopter infrared patrol on a three-year cycle, and annual sub-transmission aerial
20 helicopter visual patrols. The inspection priority system will identify and provide for the
21 timely condition-based replacement of visibly damaged or deteriorated assets prior to the
22 next inspection cycle. The inspection findings will be categorized into the following
23 levels:

- 1 • Level 1: An immediate issue that requires the inspector to stand-by until a
2 qualified crew/supervisor arrives to resolve the issues as soon as practical, or an
3 issue that must be repaired within 5 business days;
- 4 • Level 2: An issue that, if left unresolved, has a high probability of failure within
5 12-18 months of the inspection. The identified work will be completed within
6 one year.
- 7 • Level 3: An issue that has a high probability of failure within 3-5 years of the
8 inspection. The identified work will be completed within three years.
- 9 • Level 4: Information is used for asset decision making and to aid inspectors
10 during the subsequent inspections.

11
12 Further, the Company anticipates establishing a semi-annual feeder patrol for all mainline
13 portions of the overhead distribution feeders. The purpose of this patrol would be to find
14 any Level 1 priority work that will need to be addressed immediately since only 20
15 percent of the feeders will be inspected any given year and every feeder is exposed to the
16 elements (i.e. falling tree limbs) every day. The I&M Strategy inspection cycles are
17 expected to begin by the end of 2009 and will augment or subsume some of the existing
18 asset strategies, such as Feeder Hardening and Wood-Pole Replacements, as referenced
19 above.

1 **Q. Why does the Company view the new I&M Strategy as an important mechanism for**
2 **system reliability?**

3 A. Consistent with the transition to a more proactive Asset Management approach, the new
4 I&M Strategy is designed to provide the Company with specific information as to the
5 overall condition of assets and asset systems composing the overhead and underground
6 distribution system. Implementation of the I&M Strategy will provide substantial
7 benefits to the system in terms of facilitating the proactive and cost-effective replacement
8 of system components and in terms of achieving substantial gains in service reliability as
9 a result of a coordinated and comprehensive replacement program. The I&M Strategy
10 represents a significant enhancement to traditional practice and will address conditions
11 impeding reliability performance on a system-wide basis rather than addressing limited
12 performance deficiencies on a selected group of feeders or as they arise.

14 **Q. What types of costs will be incurred as a result of the implementation of the I&M**
15 **Strategy?**

16 A. There are three types of work that will be performed as a result of the I&M Strategy, and
17 therefore, three categories of cost that will be incurred. First, the Company will be
18 conducting systematic and cyclical inspections, which do not currently occur today. As a
19 result, the Company will incur O&M expense incremental to the test year for the
20 additional staffing necessary to manage the inspection cycle and to conduct planned
21 inspections. Second, the Company plans to utilize the results of the inspection cycle to
22 identify and complete necessary repairs on inspected equipment. As a result, the
23 Company will incur capital costs (and associated O&M expense) to make repairs and

1 upgrades in accordance with the I&M Strategy parameters. Some of these repairs may be
2 more minor, resulting in incremental O&M expense (rather than capital); however, the
3 Company anticipates that a fair amount of the work that will arise as a result of these
4 inspections will be capital projects. As a result, the Company will spend both O&M
5 dollars and capital funds to make needed repairs arising from the I&M Strategy.
6

7 **Q. Is the Company proposing any recovery of costs associated with the I&M Strategy?**

8 A. Yes. The dilemma that confronts the Company is two fold: the Company recognizes that
9 the I&M Strategy is needed at this point in time and that its implementation will have a
10 distinct impact on service reliability levels in a relatively short time span, and certainly
11 by the end of the first five-year cycle. However, the cost of the program will be greater
12 than can be absorbed by the Company without rate relief given current pressures on
13 return-on-equity performance. Consequently, the Company is requesting that the
14 Commission allow recovery of the costs that the Company will incur in the future as part
15 of the I&M Strategy. These costs are detailed in Schedule NG-JP-1. As shown there, the
16 Company will incur incremental O&M expense of approximately \$4.7 million in calendar
17 year 2010 for planned inspections, repair-related O&M expense and O&M expense
18 arising from capital repair projects. In addition, the Company will need to increase its
19 capital investment from approximately \$8.2 million to \$11 million for repair and upgrade
20 projects. As proposed in this case by the Company, capital expenditures arising from the
21 I&M Strategy would be included in the mechanism discussed by Ms. Tierney in her
22 testimony. Planned O&M expense incremental to the test year is included in the
23 proposed revenue requirement discussed in the testimony of Mr. O'Brien. Therefore, if

1 approved by the Commission, these costs would be recovered through base rates on a
2 going forward basis.

3
4 **Q. Are there any other cost adjustments that the Company is seeking in relation to**
5 **electric operations work programs?**

6 A. Yes. The Company has ramped up its Vegetation Management Strategy for the overhead
7 distribution system. In bad weather, the proximity of tree limbs and vegetation to the
8 overhead circuits is a significant cause of outages because the Company's overhead
9 facilities cannot sustain the damage that occurs when trees fall on or interfere with the
10 wires. As a result, the Company has formulated a strategic plan for dealing with
11 vegetation management, which includes systematic trimming across the distribution
12 system. A stable and consistent circuit pruning program maintains and improves
13 reliability, but also is important in safeguarding the public safety because it minimizes
14 tree/wire contact issues and improves crew accessibility. Pruning also facilitates the line-
15 inspection process. Given the significant level of ramp-up associated with this Strategy,
16 the Company has incorporated costs through the rate year in its revenue requirement to
17 account for the additional program costs. Specifically, the Company is expecting to incur
18 \$9.1 million of vegetation-management costs in the rate year as indicated on Schedule
19 NG-JP-2, which represents an increase of approximately \$2 million annually over the
20 amount expended in the test year. Incremental vegetation management expense above
21 test year levels are included in the cost of service in this case as supported by the
22 testimony and schedules of Mr. O'Brien, and subsequently would be reconciled through
23 the proposed I&M tracking mechanism discussed by Mr. O'Brien.

1 **Q. Is circuit pruning a new activity for the Company?**

2 A. No. Circuit pruning is not a new program. However, National Grid has enhanced the
3 program in three significant ways: First, all pruning was converted to a circuit-based
4 approach rather than an approach targeting specific communities. Circuits are used to
5 serve customers across municipal boundaries. As a result, when a tree-related outage
6 occurs on a circuit, customers along the entire circuit have the potential to experience an
7 outage. The advantage of a circuit-based approach is that pruning occurs along the
8 entirety of a circuit at a single point in time, rather than being completed in segments
9 through tree-trimming activities in particular municipalities that may occur at different
10 times. Thus, a circuit-based approach increases reliability by lessening the potential
11 for tree-related outages along an entire circuit. Second, cycle lengths were shortened to
12 be more comparable to average growing seasons in each area, which means that a greater
13 level of pruning activities will take place in Rhode Island on a year-to-year basis. Third,
14 enhanced pruning specifications were introduced to create additional clearance between
15 the conductors and trees or tree limbs, especially overhead clearance, and to remove
16 additional interruption hazards at the time of the pruning operation. These changes will
17 have important reliability and public safety ramifications, but also will involve substantial
18 cost. As a result, the Company is proposing to recover the costs associated with the level
19 of activity it will actually perform on a going forward basis.

1 **Q. Are there other work activities aside from those listed above and described as part**
2 **of the I&M Strategy that the Company undertakes as part of the Annual Work**
3 **Plan?**

4 A. Yes. There are approximately 50 Asset Strategies that the Company employs across
5 National Grid's U.S. distribution operations through the Annual Work Plan, including
6 those listed above. In total, the Strategies conducted by the Company result in a capital
7 investment plan for the Rhode Island electric distribution operation that will total
8 approximately \$59.9 million in 2009, and that is expect to increase to approximately
9 \$75.9 million by the end of 2010. This is a substantial amount of capital for the
10 Company to invest *on an annual basis*, which is the reason that the Company is
11 requesting that the Commission establish a capital funding mechanism and a provision
12 for recovery of the level of inspection-related O&M expense expected through the rate
13 year to meet the goals of the I&M Strategy.

14
15 **V. Annual Budget Process and Cost Containment Measures**

16 **Q. How does the Company develop its budget for the Annual Work Plan?**

17 A. Each year, EDO develops an Annual Work Plan that is designed to achieve the overriding
18 performance objectives of the business unit (safety, reliability, efficiency, customer
19 satisfaction and environmental stewardship). At the outset, the Annual Work Plan
20 represents a compilation of proposed spending for Asset Strategies, individual capital
21 projects and statutory and regulatory mandatory work activities. As mentioned above,
22 mandatory work activities include new customer connections, public requirements that

1 necessitate relocation or removal of our facilities, safety and environmental compliance,
2 and system integrity projects such as response to damage/failure and storms.

3
4 All capital expenditures are accounted for within uniquely identified funding projects, for
5 which the project justification and estimated costs are reviewed and approved in advance
6 of any expenditure. Projects may be specific to resolving a single issue or may be
7 developed to account for a programmed response to a large volume of similar type work.
8 In either case, senior management reviews the scope of work and the estimated costs to
9 ensure they will satisfy business objectives. The Company uses a prioritization model
10 based on the relative risk of each project proposal to facilitate the selection of appropriate
11 projects to be included in the capital plan. The prioritization model considers the risks
12 relative to safety, reliability and environmental impact. A comprehensive view of the
13 budget, itemized by program and spending rationale is presented to National Grid's
14 senior executives for review and approval; however the individual Strategies, programs
15 and projects outlined in the Annual Work Plan are not specifically approved in this phase
16 of the process. The budget amount is approved on the basis that it provides the resources
17 necessary to meet the business objectives set for that year and EDO management is
18 responsible to meet the approved budget. However, if shortfalls are identified during the
19 year, additional funds may be procured after the merits of the need and the risks
20 associated with a specific project are assessed.

21
22 From an overall perspective, the Company's objective is to arrive at a capital budget that
23 is the optimal balance in terms of making the investments necessary to maintain and

1 improve the performance of the system, while also ensuring a cost-effective use of the
2 Company's available resources. At the same time, the Company must maintain a level of
3 flexibility inherent in the budgeting and spending management process to ensure that the
4 Company is in a position to deal with circumstances that inevitably arise during the year.

5
6 **Q. Are there any other approval processes that are conducted in relation to the annual**
7 **EDO budget?**

8 A. Yes. As stated above, the result of the budgeting process is the approval of a total dollar
9 amount for capital spending in the budget year. In addition to this planning and
10 budgeting process, specific approval must be obtained for any Strategy, program or
11 project within the Annual Work Plan. Approval is obtained through a "delegation of
12 authority, or "DOA," requirement prior to proceeding with engineering and construction.
13 National Grid's project authorization process is conducted by the Project Sanctioning
14 Committee, which meets every month. Each project must receive the appropriate level of
15 management authorization prior to start of any work. Approval authority is administered
16 in accordance with National Grid's DOA governance.

17 For Strategies, programs and projects less than \$1 million in estimated expenditures,
18 project proposals are reviewed by management in the initiating department, by Network
19 Asset Planning, which sponsors all projects, and by Investment Management. In
20 addition, Program Management reviews any projects that request unbudgeted spending in
21 the current fiscal year. Each project proposal must contain adequate documentation to
22 justify the project need and requested funding. The project risk score, annual estimated

1 cash flows, spending category and alternatives are also presented. Final approval and
2 documentation for projects less than \$1 million is provided through the project
3 accounting system by the same departments.

4
5 For projects estimated in excess of \$1 million, a sanction paper request must also be
6 prepared and presented to the Distribution Capital Investment Group ("DCIG") for
7 approval. DCIG is responsible for budget governance throughout the year, in that EDO
8 must obtain the approval of DCIG for any capital spending within the amount approved
9 by senior management for the overall budget. Specifically DCIG is responsible for
10 sanctioning work estimated to be greater than \$1 million and to oversee the overall EDO
11 budget.

12
13 Projects estimated at more than \$10 million are reviewed by the DCIG, which I chair, and
14 then referred to the Distribution Executive Committee, which is comprised of Senior
15 Management in Electricity Distribution. The Distribution Executive Committee is
16 chaired by Mr. King, who is the President of National Grid USA. Projects above \$50
17 million are reviewed and modified, as appropriate by the executive group of National
18 Grid plc.

19
20 **Q. Would you please describe the project authorization process for projects greater**
21 **than \$1 million?**

22 A. Yes. Projects presented to the DCIG must be accompanied by a detailed Project Sanction
23 Paper ("PSP"), which is prepared and presented to the committee for approval. The PSP,

as set forth by the project sponsor, must include a written summary of various business factors that should be considered in any decision to allow the project, including:

- Project Background, Description and Drivers: These sections provide a high-level overview of the project and the factors driving the need for its completion.
- Business Issues, Options Analysis: This section provides a summary of the business issues involved in the project. The options analysis discusses other potential courses of action including the impacts of a “do nothing” strategy.
- Financial Impact and Cost Summary: This section provides an economic analysis of the proposed project. The nature of the economic analysis differs depending on the nature of the project.
- Investment Recovery: This section evaluates any factors relating to the recovery of the investment.
- Project Schedule, Milestones and Implementation Plan: This section describes any timing implications and start-up schedules.

Once an approved project is completed, the project sponsor is responsible for preparing closure papers, which present information on a number of factors including a discussion of whether and to what extent project deliverables were achieved and lessons learned as a result of project implementation.

Q. What is the process for re-sanctioning capital projects?

A. Distribution capital projects are authorized with a project-grade estimate (i.e., within a margin of plus or minus 10 percent). Reauthorization is required if the project cost is

1 expected to exceed the lesser of 10 percent of the project estimate or \$500,000 above the
2 authorized amount. The reauthorization request must include presentation of the original
3 authorization, the variance amount, the reasons for the variance and the details and costs
4 of the variance drivers, as well as the estimated impact on the current year's spending.
5 Project reauthorizations of \$1 million or greater require approval by the DCIG. Project
6 spending is monitored monthly against authorized levels by the project management and
7 program management groups. Exception reports covering actual or forecasted project
8 spending greater than authorized amounts are presented and reviewed monthly at the
9 DCIG. Projects of \$1 million or greater also require re-sanctioning if the project
10 completion date is delayed more than three months beyond the approved date.
11

12 **Q. Are you familiar with the capital budget proposed in this proceeding for inclusion in**
13 **rates?**

14 A. Yes. I have included Schedule NG-JP-3, which is a listing of all capital spending by
15 budget class by month for 2008, 2009 and through the end of calendar year 2010. The
16 Company plans to utilize these budgeted amounts in full through the end of the rate year,
17 and therefore, recovery through rates is warranted.
18

19 **Q. Would you describe Schedule NG-JP-3?**

20 A. Yes. As shown in Schedule NG-JP-3, the Company plans for capital spending in 12
21 budget categories. These categories are: (1) Asset Replacement; (2) Damage/Failure;
22 (3) Land and Land Rights; (4) Load Relief; (5) Meters; (6) New Business; (7) Other;
23 (8) Outdoor Lighting; (9) Public Requirements; (10) Reliability; (11) Storms, and

1 (12) Transformers. As indicated in Schedule NG-JP-3, a relatively large proportion of
2 capital spending is undertaken in the categories of Asset Replacement, Load Relief, New
3 Business and Damage/Failure. The actual investment made in these 12 categories of
4 capital spending in the test-year period (calendar year 2008) was \$59.4 million.

5 Consistent with the Company's overall EDO work plan and strong focus on an increased
6 level of system reinforcement to maintain and improve service reliability, this amount
7 totals \$75.9 million through the end of the rate year, or December 31, 2010.

8
9 **Q. During the budget year, does the Company exercise cost-containment strategies to**
10 **control project costs?**

11 A. Yes. As stated above, project sponsors are required to obtain the consent of the original
12 sanctioning committee if it is determined that costs may have increased during
13 construction to exceed the original project authorization. Under those circumstances, the
14 project manager and project sponsor must prepare a written request for "re-sanction,"
15 which demonstrates (1) that the original drivers of the project remain valid, and (2) that
16 cost-containment efforts have been undertaken to the extent possible to mitigate any cost
17 increases that are within the control of the Company. This process ensures that project
18 costs do not increase unless (1) the project remains necessary and appropriate, and
19 (2) appropriate cost control strategies have been employed.

1 **Q. What is the Company doing to contain O&M costs and to ensure that capital**
2 **improvements are cost effective?**

3 A. National Grid pursues aggressive, long-term cost-containment strategies in order to
4 mitigate the coincident impact of rising costs and expanding investment needs so that
5 rates charged to customers are reasonable and consistent with the level of service
6 provided to customers. The Company's cost-containment strategies are implemented on
7 a coordinated and comprehensive basis through an effort that the Company refers to as
8 "EDO Transformation." The central focus of the EDO Transformation is to promote a
9 high performing organization that delivers value to customers at a high level of
10 operational efficiency. Ultimately, the EDO Transformation will touch upon every
11 aspect of National Grid's electric distribution operations. Specifically, the Company is
12 working to achieve a greater level of efficiency in six core areas, as follows:

- 13 • *Asset Management:* The Company is improving its long-term planning efforts,
14 which will enable the Company to achieve efficiencies in capital allocation and
15 resource planning in relation to system assets.
- 16 • *Customer Management:* The Company is working to develop a Customer Order
17 Fulfillment function to manage the customer relationship from initial inquiry to
18 delivery of the first bill, which will streamline interactions with customers and
19 increase customer satisfaction.
- 20 • *Contracting Strategies:* The Company is working to establish new performance-
21 based construction contracts that encourage effective management and delivery of
22 construction and maintenance services.

- 1 • *Work Delivery:* The Company is working to establish streamlined processes to
2 ensure optimized work flow and resource utilization. Greater efficiency will be
3 achieved in readying crews and equipment for deployment in the field and focus
4 will be placed on crew productivity and safety.
- 5 • *Construction Design:* The Company is working to establish design centers of
6 excellence to standardize the design process and improve efficiency.
- 7 • *Network Operations:* The Company is working to consolidate and standardize its
8 network control centers and to add advanced distribution automation technologies
9 to increase efficiency and improve service reliability.

10
11 **Q. Could you provide some examples of the ways in which operational efficiencies and**
12 **long-run cost containment will be achieved through the EDO Transformation?**

13 A. Yes. Specific examples of cost-containment efforts would include:

- 14 • *Centers of Excellence:* The Company's analysis shows that engineering design
15 personnel may spend up to 40 percent of their work day responding to customer
16 queries for information. The Company is planning to establish the customer order
17 fulfillment function to handle these customer inquiries, which will enable the
18 design staff to spend 100 percent of the work day completing design activities.
19 This change would not only reduce design costs (by increasing productivity of the
20 current work force), but also has the effect of improving the customer experience
21 since the customer would have access to more resources specialized in customer
22 interactions. Similarly, the Company is planning to centralize administrative
23 support services for field operations. This change will remove administrative and

1 transactional burdens from field supervisors and increase the amount of time that
2 they spend in the field. This greater level of productivity will ensure that more
3 work is completed with existing resources, avoiding the need for incremental
4 resources to complete work schedules. Centralizing the transactional work will
5 ensure standard and simple processes exist that ensure the accuracy, timeliness
6 and completeness of information related to work performed, assets in service, and
7 company records is achieved.

- 8 • *Integrated Strategic Planning:* The Company is implementing new integrated
9 planning processes to support both the long (up to 15 years) and short-term (0-18
10 months) project horizons. This change will have the effect of allowing for the
11 more efficient planning and allocation of resources, improved procurement
12 strategies and better contracting decisions. For example, with a longer term
13 planning horizon, the Company will be in a position to secure longer term pricing
14 arrangements, which are typically more cost-effective than short-term strategies.

- 15 • *Improved Work Processes:* The Company's evaluation of existing processes
16 shows that the productivity of field staff can be improved through the completion
17 of ancillary tasks such as stocking and preparing the vehicles by employees other
18 than those performing work in the field. National Grid has identified new roles
19 and responsibilities to address these opportunities which include: creation of a
20 work readiness role that will prepare trucks and work assignments for daily crews;
21 enabling performance supervisors to be in the field with the crews providing for
22 visibility and coaching; and scheduling and preparing for a four week work plan.

1 **VI. Support for Ratemaking Proposals**

2 **Q. Are you supporting the Company's proposal to institute ratemaking mechanisms**
3 **for recovery of I&M Strategy costs, vegetation-management costs, and capital**
4 **investment?**

5 A. Yes, I am. As I mentioned at the outset of my testimony, the operation of the electric
6 distribution system requires significant financial resources. In particular, the efforts that
7 are needed to replace obsolete and aging system components on a consistent and
8 systematic basis, and the efforts that are required to repair and replace system
9 components as a result of large-scale, unavoidable weather events are two significant
10 challenges for the electric distribution system. The Company requires regulatory support
11 for these two critical functions if it is to have the financial tools available to deal
12 effectively and decisively with these factors. Consequently, the Company is proposing
13 certain ratemaking mechanisms to ensure adequate funding for I&M Strategy activities,
14 vegetation management and capital investment. In all three cases, the regulatory lag that
15 is associated with cost recovery under the existing ratemaking framework makes it
16 exceedingly difficult for the Company to maintain its financial health and access to
17 adequate capital resources. My testimony addresses each of these funding challenges
18 below.

I&M and VEGETATION MANAGEMENT STRATEGIES

Q. Why is the Company proposing to recover O&M expense associated with the I&M and Vegetation Management Strategies at the level planned through the end of the rate year?

A. As noted above, the Company will incur considerable cost to implement the I&M and Vegetation Management Strategies given that most of the activities contemplated by the Strategies were either not undertaken in past years, or are being significantly and systematically ramped up on a going forward basis. For example, to conduct the I&M Strategy, the Company will incur both O&M cost and capital costs. Capital investment will be required to repair and replace facilities identified as needing repair or replacement through the inspection process. Further, O&M cost will be realized that is incremental to the test year. This expense will be incurred to conduct inspections of overhead and underground distribution assets and asset systems, as well as in the course of completing capital work to repair and/or replace facilities identified through the inspection process. Similarly for Vegetation Management, the Company will incur incremental O&M expense as activities are ramped up in the future.

The O&M and capital costs associated with these two Strategies will be greater than can be absorbed by the Company without rate relief given current pressures on return-on-equity performance. For example, the Company will conduct wood-pole inspections and replacements through the I&M Strategy. There are approximately 298,000 Company-owned poles in the Rhode Island service area. There are roughly 5,100 manholes and 1,000 vaults on the distribution system, as well as approximately 76,000 distribution

1 transformers. Inspections are not currently performed on these asset classes to the extent
2 contemplated by the I&M inspection, which means that the commencement of the I&M
3 Strategy on a five-year cycle will require considerable commitment by the Company in
4 terms of time and funding. Given the scale of the effort, and the direct customer benefits
5 that will result from this effort and the Company's vegetation management efforts, it is
6 reasonable and appropriate to provide recovery of these costs in base rates and to allow
7 reconciliation of amounts expended over and above the amount recovered through rates
8 on an annual basis.

9
10 **CAPITAL ADDITIONS**

11 **Q. What is the Company proposing in this proceeding in terms of recovery for capital**
12 **investment?**

13 A. As shown on Exhibit NG-JP-3, the Company's capital forecast for the calendar years
14 2009 and 2010 amounts to \$59,960,163 and \$75,939,700, respectively. Consistent with
15 Commission precedent, these amounts are included in the Company's average rate base
16 and cost of service for the rate year as supported by Mr. O'Brien. This includes the
17 capital investment that will be required to conduct the I&M Strategy.

18
19 **Q. What is the Company proposing in this proceeding in terms of recovery for capital**
20 **investment?**

21 A. The testimony of Ms. Tierney discusses the Company's principle proposal for the
22 recovery of capital investment on a going-forward basis. As discussed therein, the
23 Company is proposing to institute a capital recovery mechanism to allow for more real-

1 time recovery of the revenue requirement associated with post rate-year capital
2 investments. This would include capital for mandatory projects, such as new customer
3 connections, damage and failure response and public-way requirements. This would also
4 include capital for internal investment planning, such as the I&M Strategy, reliability
5 projects, asset replacement and load-related upgrades. The Company feels very strongly
6 that recovery of capital investment on a real-time basis is necessary for the Company to
7 maintain its financial health, while also completing the projects necessary to maintain and
8 improve the reliability of the distribution system. This is especially true in relation to the
9 capital projects that will be undertaken as a result of the implementation of the I&M
10 Strategy.

11
12 **Q. Why is it important for the Company to obtain this recovery?**

13 A. The core activity of a regulated electric distribution company is to build and maintain the
14 infrastructure necessary to deliver electricity to customer homes and businesses in a safe
15 and reliable manner. However, the distribution business is a complex, capital-intensive
16 undertaking, especially in the Northeast U.S. where weather has an unavoidable impact
17 on assets and substantial portions of the distribution systems are aging and reaching the
18 end of their useful life. In addition, National Grid is operating in an environment of
19 extreme uncertainty and challenge from a financial perspective. To continue to attract
20 capital at a reasonable cost, the Company must have the opportunity to recover adequate
21 revenues from customers to both cover the cost of providing utility service and to provide
22 a return that is viewed as fair and reasonable by financial-market participants. Given the
23 expected need for increasing capital investments, the Company currently does not have

1 that opportunity under traditional ratemaking policies, which is the reason that the
2 Company must seek the Commission's assistance in implementing a mechanism for
3 timely capital recovery. Given circumstances existing in financial markets, National Grid
4 cannot invest significant amounts of capital without the opportunity to include the capital
5 additions in rate base without the filing of a rate case. Since significant and ongoing
6 capital investment is required to maintain and improve service reliability to customers,
7 the inability to obtain recognition of rate-base additions on a more real-time basis
8 becomes debilitating from a financial integrity perspective. Therefore, in this proceeding,
9 the Company is seeking to address the interrelated issues that are preventing the
10 Company from collecting sufficient revenues to operate its system.
11

12 **VII. National Grid's Strategic Management of Facilities**

13 **Q. Please provide an overview of National Grid's approach to property management**
14 **and its efforts to minimize cost and maximize the efficient delivery of service to**
15 **customers.**

16 A. National Grid has developed a comprehensive property-management strategy to meet
17 customer service needs most efficiently. To further this strategy, National Grid has
18 conducted an assessment of opportunities available to consolidate its workforce into
19 fewer locations and to bring together key business teams that are physically separated.
20 At the same time, National Grid has sought to design or select locations that reflect its
21 environmental commitment.
22

23 The facilities from which the Company provides service to its customers are critically

1 important, not only as they relate to the efficiency of the Company's operations, but also
2 in supporting the Company's ability to better serve its customers. In this testimony, I will
3 focus in particular on how National Grid's property consolidation initiative meets these
4 challenges.

5
6 Property Consolidation Strategy

7 **Q. Please provide an overview of National Grid's property consolidation initiative.**

8 A. In conjunction with the impending merger with KeySpan, National Grid began a review
9 of all of its property holdings and those of the former KeySpan to consider the potential
10 benefits to be achieved from consolidations and other changes in the way in which the
11 companies manage their facilities and deliver services to customers. It quickly became
12 clear that, by closing some facilities and consolidating operations at others, National Grid
13 could achieve long term cost reductions and improve the efficiency with which it serves
14 its customers. In addition to the cost savings associated with reducing the number of
15 facilities it operates, this process has provided National Grid with a significant
16 opportunity to increase the productivity of its workforce by locating employees who
17 perform related functions together and by changing the manner in which its space is
18 utilized. Thus, one of the primary focus items in this process has been to identify
19 opportunities to integrate in a single location related business teams that historically have
20 been physically separated. At the same time, the new and renovated properties being
21 occupied by the Company are being designed for more efficient and effective use,
22 thereby improving the functionality of the space and reducing the amount of space per
23 employee. This also provides National Grid with the opportunity to make its physical

1 space more reflective of its overall corporate mission and goals. I will address each of
2 these points below.

3
4 **Q. Has National Grid performed a cost-benefit analysis regarding its planned facilities**
5 **consolidation?**

6 A. Yes. National Grid performed an analysis of the economics of consolidating its
7 properties and has approved those consolidations that will achieve long-term benefits
8 through making an investment in the consolidation plan now. In addition, the
9 consolidations result in significant non-economic benefits. As part of its analysis,
10 National Grid identified the savings that would result from property consolidation, which
11 include avoided operating, property tax and capital costs. As described in more detail
12 below, the Rate Year facility-related operating expense included in the Company's
13 proposed revenue requirement will result from facilities changes that are (1) known and
14 measurable, and (2) have occurred or will occur within the timeframe normally
15 recognized by the Commission for ratemaking purposes.

16
17 In its cost-benefit analysis set forth in Schedule NG-JP-4, National Grid determined the
18 costs and savings associated with implementing any proposed property consolidation
19 initiatives for Main Offices and Special purpose facilities in New England. These costs
20 and savings result from identifying new locations, renovating existing facilities as
21 required, constructing facilities, disposing of unneeded properties, and moving business
22 functions in an organized, coordinated fashion. After weighing the costs against the
23 projected savings from the facilities consolidation, along with other business benefits of

1 the consolidation (which are described below), National Grid concluded that there was a
2 long-term net benefit to undertaking this effort.

3
4 **Q. What is the long-term net benefit of the facilities consolidation?**

5 A. As reflected in Schedule NG-JP-4, for National Grid's Main Office and Special Purpose
6 facility consolidation, in the 10 year period up to 2018, there will be an economic benefit
7 of approximately \$10 million. Over the 20 year period through 2028, this increases to
8 \$29 million.

9
10 **Q. Are 10 or 20 year time horizons an appropriate benchmark to measure net savings?**

11 A. Yes. Property consolidation efforts of this magnitude are necessarily capital intensive.
12 Given this, a 10 or 20 year time horizon is consistent with industry standards and is
13 appropriate for evaluation of these types of property decisions.

14
15 **Q. You indicated that National Grid's efforts to consolidate facilities include a focus on**
16 **integrating business teams. How is this reflected in National Grid's decision-**
17 **making process for consolidating facilities?**

18 A. In addition to undertaking economic analyses of different options considered as part of
19 the property consolidation process, National Grid established the following non-financial
20 criteria to guide its decision-making process:

- 21 • Office workers will be consolidated into as few locations as possible;
- 22
- 23 • Where possible, large, end-to-end processes will be physically co-located in a
- 24 single facility;
- 25

- Managers will be located with their manager or work group, preferably both;
- Critical infrastructure facilities – for example, data and contact centers – will be in fewer locations;
- There will be no more than one office or workstation per employee; and
- The Company will fully utilize lower-cost facilities and low-cost, off-site storage where possible.

Although I describe these as “non-financial” criteria, they obviously have a very significant impact on the efficiency and effectiveness with which the Company delivers service to customers, and therefore ultimately do have a financial impact.

Facility Categories and Consolidations

Q. Please provide an overview of the kinds of facilities the Company uses to provide service to its customers.

A. There are three types of facilities used to serve customers: operations centers, special purpose facilities, and main office facilities. All of the facilities used to serve the Company’s customers are identified in Schedule NG-JP-5.

The Company has 12 operations centers in Rhode Island, supporting both its electric and gas customers, which typically consist of the barns and depots from which employees are dispatched to provide service directly to customers. As of April 2010, National Grid will have one special purpose facility in New England (in Northborough) that will house the control and dispatch center for its electric and gas distribution business and electric transmission business. This facility will be open 24 hours a day, seven days a week and

1 will be a hardened facility (meaning it is constructed to maximize the ability to operate in
2 the event of a business interruption event such as a storm) so that it can remain functional
3 at all times. As of May 2009, National Grid will have one main office facility in New
4 England from which its electric, gas and transmission business leadership, engineering,
5 and design support personnel as well as its legal, regulatory, procurement, and property
6 services personnel will work.

7
8 **Q. Please identify the specific facilities that will be consolidated.**

9 A. National Grid has identified opportunities to consolidate within all three types of its
10 facilities. As a result of National Grid's acquisition of New England Gas Company in
11 2006, the Company has electric and gas operations facilities in Rhode Island that are in
12 close proximity. National Grid considered the economic case for consolidation of those
13 operations, and determined that it could achieve savings by combining its operations on
14 Dexter Street and Allens Avenue in Providence, along with its operations on George
15 Washington Highway in Lincoln and Mendon Road in Cumberland into the Company's
16 existing electric operations center on the Melrose Street facility in Providence. Because
17 the Melrose operations center will house both electric and gas operations, the amount of
18 operating expense incurred by the Company for this facility will decrease. It should be
19 noted that the renovations and relocations necessary to complete this consolidation will
20 be extensive and will likely not be completed until after the Rate Year. The Company
21 has closed its Main Street facility in Warren.

22
23 With regard to special purpose facilities, National Grid plans to move employees from

1 four locations – Research Drive in Westborough, Second Avenue in Waltham,
2 Washington Highway in Lincoln, Rhode Island, and Dexter Street in Providence, Rhode
3 Island – to a single special purpose facility in Northborough, Massachusetts.
4

5 As described in more detail below, National Grid is also consolidating its Main Office
6 facilities in New England into one location, known as Reservoir Woods. Currently, in
7 New England, employees performing main office functions are spread across multiple
8 facilities, including those on Jones Road and Second Avenue in Waltham, Westborough
9 and Northborough, Massachusetts and Melrose Street in Providence, Rhode Island.

10 National Grid also continues to have Main Office Facilities in Brooklyn (MetroTech) and
11 Syracuse, New York.
12

13 The Reservoir Woods Facility

14 **Q. The consolidation of National Grid’s main office facilities appears to be its most**
15 **significant consolidation of existing facilities and functions. Why did National Grid**
16 **decide to consolidate its main office functions into one office facility?**

17 A. As I indicated earlier, by locating employees who are performing similar or related
18 functions in a single facility, National Grid can achieve operating efficiencies by
19 enhancing collaboration and communication among employees whose functions are
20 reliant on one another. These efficiencies will improve the quality and cost-effectiveness
21 of service delivered to customers.
22

1 **Q. The consolidation of main office facilities into the Reservoir Woods facility appears**
2 **to be a major undertaking. Please describe the process that National Grid followed**
3 **in making the decision to consolidate its main office functions at Reservoir Woods.**

4 A. Early in the process of planning for the integration of KeySpan and National Grid,
5 National Grid determined that consolidation of its Main Office space could achieve
6 significant cost savings. National Grid began evaluating available options, which
7 included maintaining National Grid's current space in Northborough and Westborough
8 and consolidating Main Office functions in those two facilities. However, because of the
9 age and size of those facilities, this option would have required significant renovations to
10 the existing buildings and would not have allowed National Grid to consolidate its
11 workforce into one location. National Grid also considered leasing or purchasing space
12 at a number of locations other than Reservoir Woods. Initially, National Grid screened
13 36 properties located in the Route 128 and I-495 corridors and then solicited proposals
14 from 14 of those sites. After reviewing those proposals, National Grid then solicited 5
15 more proposals. National Grid considered the costs associated with each option, as well
16 as other significant non-financial factors such as overall employee impacts, the extent to
17 which each site would allow National Grid to quickly integrate its workforce into one
18 location, provide ready access to the region's workforce, and reflect National Grid's
19 environmental commitment. The result of that evaluation process was the selection of
20 Reservoir Woods.

1 **Q. Please describe the Reservoir Woods facility.**

2 A. The Reservoir Woods facility is located in the Reservoir Woods East office park in
3 Waltham, Massachusetts near Route 128. The facility is centrally located within the
4 Company's service area. National Grid USA Service Company, Inc. has entered into a
5 20 year lease for the entire facility with an option to renew for an additional 20 years.
6 Reservoir Woods consists of approximately 312,000 square feet and will house
7 approximately 1,900 employees. National Grid began occupying the space in May 2009.

8
9 **Q. You indicated that the design of Reservoir Woods is consistent with National Grid's**
10 **corporate mission and its focus on environmental sustainability. Please explain.**

11 A. As I noted earlier, one thing that National Grid sought to achieve in selecting its new
12 main office facility was to design the space to increase productivity, attract a high quality
13 workforce and reflect National Grid's energy efficiency and environmental standards. As
14 a result, the space at Reservoir Woods is designed to be open, bright, and conducive to
15 collaboration among business teams. This approach to design of the work space is
16 intended to create a work environment that will maximize the potential for collaboration
17 that National Grid is seeking to achieve by bringing related business processes together
18 into a single location. Second, the building will be a model for energy efficiency best
19 practices. The building is expected to be at least LEED Gold certified, making it one of
20 the region's most energy efficient buildings. LEED, which is an acronym for Leadership
21 in Energy and Environmental Design, promotes a whole-building approach to
22 sustainability by recognizing performance in five key areas of human and environmental
23 health: (1) sustainable site development; (2) water savings; (3) energy efficiency;

1 (4) materials selection; and (5) indoor environmental quality. LEED-certified buildings
2 have lower operating costs, reduce the amount of waste sent to landfills, conserve energy
3 and water, are healthier and safer to occupants, and reduce harmful greenhouse gas
4 emissions.

5
6 Given National Grid's leadership role in implementing energy efficiency programs, and
7 the need for energy companies to provide leadership in facing the challenge of global
8 climate change, National Grid continues to believe that it must place a priority on being a
9 role model for energy efficiency in its own operations. Equally important, the energy
10 efficiency benefits of the Reservoir Woods facility will reduce the Company's operating
11 costs over the long run. The building will have the following features:

- 12 • A 200 kW photovoltaic array on the roof will supply up to 5% of the
13 building's electricity.
14
- 15 • Water use will be reduced by approximately 2.4 million gallons per year from
16 water conservation measures such as dual flush toilets, waterless urinals,
17 automatic sensing lavatory faucets, and a grey water supply system. Of the
18 2.4 million gallons to be conserved, the grey water system will supply rain
19 water and condensate to flush toilets, itself saving 654,000 gallons of water
20 each year.
21
- 22 • Energy use and carbon emissions will be reduced through high-efficiency
23 HVAC equipment, enthalpy wheel heat exchangers, high efficiency windows,
24 a high efficiency boiler (95% efficient), roof insulation, evaporative
25 condensing HVAC units to reduce cooling energy, exterior shading devices
26 and a highly reflective white roof.
27
- 28 • Advanced lighting designs will reduce lighting power density of 0.6 watts/sf,
29 which will result in approximately 800,000 kWh in savings per year.
30
- 31 • The facility is accessible to mass transportation through a corporate shuttle
32 system and preferred parking for hybrid vehicles.
33

1 **Q. Please describe the savings that will accrue as a result of the LEED certification of**
2 **the building.**

3 A. There are a number of savings associated with LEED certification of the building,
4 including the following:

- 5 • Water savings from the rain water collection system will save approximately
6 \$5,500/year.
- 7 • Energy savings from all efficiency measures exclusive of solar PV is estimated at
8 \$190,000/year.
- 9 • In addition, solar PV will save approximately \$35,000/year.

10 Some of the other savings include improved indoor air quality, which is expected to
11 reduce employee absenteeism, and extensive day lighting and outdoor views, which have
12 been demonstrated to improve the health and productivity of building occupants.

13
14 **Q. Are there other reasons why LEED certification is important?**

15 A. Yes. Consistent with energy conservation and environmental-protection policy, the
16 Company's robust energy efficiency programs encourage a wide variety of energy
17 efficiency applications to all customer classes. National Grid takes its role as energy
18 efficiency program administrator very seriously and with great pride, and needs to set a
19 leadership example in that regard. In addition to the long term savings that can be
20 obtained from Reservoir Woods' energy efficient design, the Company plans to use the
21 facility as a demonstration and training tool, giving tours and holding educational events
22 for building designers, developers, and owners throughout National Grid's New England
23 service area.

1 Facilities Expense

2 **Q. Does the Company's revenue requirement include the rate year impacts of the**
3 **facilities consolidation previously described?**

4 A. Yes, I believe it does. The Company's revenue requirement includes an adjustment for
5 net synergy savings related to the KeySpan merger transaction as described by witness
6 O'Brien. The KeySpan synergy estimate includes savings associated with New England
7 office consolidations and therefore any benefits related to those efforts are included in the
8 net synergy adjustment. However, Service Company capital investments in the Reservoir
9 Woods and Northborough² facilities were excluded from the cost to achieve synergies
10 and are consequently not embedded in the net synergy adjustment. As shown on Exhibit
11 NG-JP-6, the Service Company is expected to incur \$41.3 million of capital investment
12 in the Reservoir Woods facility and \$32.4 million in the Northborough facility, an
13 allocated share of which will be billed to the Company. For calendar year 2010, the
14 Company's allocated share of these investments, which will be recorded as rent expense,
15 amounts to \$257,940 and \$323,494, respectively, for the Reservoir Woods and
16 Northborough investments.

17
18 **Q. Does the Company's revenue requirement reflect all of the anticipated changes in**
19 **operating expense resulting from its facilities consolidation plan?**

20 A. No. As I noted earlier, the facilities consolidation plan is part of an ongoing effort to
21 control expense and manage the Company's operations as efficiently as possible while

² The costs to achieve synergy savings assumption in the KeySpan net synergy calculation included in the testimony of witness O'Brien include \$3.1 million of capital investment in the Northborough facility. Consequently the \$32.4 million amount reflected here excludes \$3.1 million.

1 enhancing the quality of service delivered to customers. Some of those changes have
2 already occurred, others are expected to be completed during this case or soon thereafter,
3 and others will be completed in the future.
4

5 **Q. Is all of the expense reasonable?**

6 A. Yes. Given all of the cost and non-cost factors outlined above, the expense included in
7 the Company's revenue requirement is reasonable and appropriate to conduct utility
8 operations. National Grid has undertaken a significant effort to develop a consolidation
9 plan that organizes its physical and human resources in a way that is cost effective on a
10 long-term basis; that improves the quality of service it provides to customers, and that
11 establishes a healthy, safe and productive work environment for employees.
12

13 **VIII. Conclusion**

14 **Q. Does this conclude your testimony?**

15 A. Yes. It does.

Schedules

Schedule NG-JP-1	Inspection and Maintenance Program Costs
Schedule NG-JP-2	Vegetation Management Costs
Schedule NG-JP-3	Capital Spending By Budget Class, 2008 – 2010
Schedule NG-JP-4	Cost-Benefit Analysis of Facilities Consolidation
Schedule NG-JP-5	List of National Grid Facilities
Schedule NG-JP-6	Facilities Capital Spending

Schedule NG-JP-1

Inspection and Maintenance Program Costs

The Narragansett Electric Company
Calculation of Inspection and Maintenance (I&M) Program Costs

	CY 2008 Costs (a)	CY 2010 Costs (b)	Incremental I&M Program Costs (c)
1 Capex	\$8,237,475	\$10,960,175	\$2,722,700
Operation and Maintenance Expenses			
2 Opex Related to Capex	\$1,806,357	\$2,043,694	\$237,337
3 Repair - Related Costs	-	1,116,682	1,116,682
4 Inspections - Related Costs	487,374	986,259	498,885
5 Total Operation and Maintenance Expense	<u>\$2,293,731</u>	<u>\$4,146,635</u>	<u>\$1,852,904</u>
6 Plus Inspections-Related Benefits and Taxes	<u>\$288,136</u>	<u>\$529,537</u>	<u>\$241,402</u>
7 Total Costs	<u><u>\$10,819,342</u></u>	<u><u>\$15,636,347</u></u>	<u><u>\$4,817,005</u></u>

- 1 Column (a): Page 2, Line 16; Column (b): Page 2, Line 17
- 2 Column (a): Page 3, Line 16; Column (b): Page 3, Line 17
- 3 Column (a): Page 4, Line 16; Column (b): Page 4, Line 17
- 4 Column (a): Page 5, Line 12, Column (d); Column (b): Page 5, Line 13, Column (d)
- 5 Sum of Lines 2 through 4
- 6 Column (a): Page 5, Line 12, Column (e); Column (b): Page 5, Line 13, Column (e)
- 7 Line 5 + Line 7

The Narragansett Electric Company
Calculation of Incremental Capital Spending

Section 1 - Calculation for Calendar Year 2008

1	Overhead (Distribution and Subtransmission) Maintenance from Inspection (6)
2	Targeted Pole Replacements (7)
3	Cutout Replacements (7)
4	Feeder Hardening
5	UG Maintenance including Structures and Equipment
6	Total Calendar Year 2008 Costs

CY08 Total Spending (2)
\$0
\$2,775,600
\$580,732
\$3,949,216
\$931,927
\$8,237,475

Section 2 - Calculation for Calendar Year 2010

Fiscal Year 2010 Estimated Costs (1)

Miles (3)	Cost Per Mile for Combined Level 2 & 3 Work	Cost per mile for Level 2 Work only	Estimated Cost for FY10 Level 2 Work Generated from FY10 Inspections	Cost per mile for Level 3 Work only	Estimated Cost for all Level 3 Work Generated from FY10 Inspections	Estimated Cost of 50% of Level 3 Work Generated from FY10 Inspections	Estimated cost of Level 3 work to be completed in FY10 (4)	FY10 Total Estimated Spending (i)
770	\$15,000	\$724	\$557,480	\$14,276	\$10,992,520	\$5,496,260		\$557,480
288	\$15,000							\$4,314,000
NA								\$1,719,000

Total Fiscal Year 2010 Estimated Costs

\$6,590,480

Fiscal Year 2011 Estimated Costs (1)

Miles (3)	Cost Per Mile for Combined Level 2 & 3 Work	Cost per mile for Level 2 Work only	Estimated Cost for FY11 Level 2 Work Generated from FY11 Inspections	Cost per mile for Level 3 Work only	Estimated Cost for all Level 3 Work Generated from FY11 Inspections	Estimated Cost of 50% of Level 3 Work Generated from FY11 Inspections	Estimated cost of Level 3 work to be completed in FY11 (4)	FY11 Total Estimated Spending (i)
770	\$15,000	\$724	\$557,480	\$14,276	\$10,992,520	\$5,496,260		\$6,053,740
310	\$15,000							\$4,644,000
NA								\$1,719,000

Total Fiscal Year 2011 Estimated Costs

\$12,416,740

Calendar Year 2010 Costs (5)

\$10,960,175

Section 3 - Calculation for Incremental Costs

Calendar Year 2008 Costs

\$8,237,475

Calendar Year 2010 Costs

\$10,960,175

Incremental Calendar Year 2010 Costs

\$2,722,700

(1) Overhead Level 2 & 3 combined capital work generated assumed cost is \$15,000 per mile based on New England feeder Hardening Experience

(2) Calculated based on 25% of FY2008 spending and 75% of FY2009 spending.

onward.

(4) Level 3 generated work assumed to be completed at 0% in year of

(5) Calculated based on 25% of FY2010 spending and 75% of FY2011 spending.

(6) In FY2008 and FY2009, the cost of overhead distribution and subtransmission maintenance from inspections is captured as part of the feeder hardening spending.

(7) Targeted Pole Replacements and Cutout Replacements to be incorporated into Inspection & Maintenance Program starting in CY2010

The Narragansett Electric Company

Calculation of Incremental OPEX Related to CAPEX

Section 1 - Calculation for Calendar Year 2008

1	Overhead (Distribution and Subtransmission) Maintenance from Inspection
2	Targeted Pole Replacements
3	Curout Replacements
4	Feeder Hardening
5	UG Maintenance including Structures and Equipment
6	Total Calendar Year 2008 Costs

CY08 Total Spending (2)
\$0
\$195,074
\$32,914
\$1,526,176
\$52,194
\$1,806,357

Section 2 - Calculation for Calendar Year 2010

Fiscal Year 2010 Estimated Costs (1)

7	Overhead (Distribution and Subtransmission) Maintenance from Inspection
8	Feeder Hardening
9	UG Maintenance including Structures and Equipment

Total Fiscal Year 2010 Estimated Costs

Miles (3)	Cost Per Mile for Combined Level 2 & 3 Work	Cost per mile for Level 2 Work only	Estimated Cost for FY10 Level 2 Work Generated from FY10 Inspections	Cost per mile for Level 3 Work only	Estimated Cost for all Level 3 Work Generated from FY10 Inspections	Estimated Cost of 50% of Level 3 Work Generated from FY10 Inspections	Estimated cost of Level 3 work to be completed in FY10	FY10 Total Estimated Spending
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
770	\$4,500	\$88	\$67,760	\$1,485	\$1,143,222	\$571,611	\$0	\$67,760
288	\$4,500							\$1,294,200
NA								\$178,776
								\$1,540,736

Fiscal Year 2011 Estimated Costs (1)

11	Overhead (Distribution and Subtransmission) Maintenance from Inspection
12	Feeder Hardening
13	UG Maintenance including Structures and Equipment

Total Fiscal Year 2011 Estimated Costs

Calendar Year 2010 Costs (6)

Miles (3)	Cost Per Mile for Combined Level 2 & 3 Work	Cost per mile for Level 2 Work only	Estimated Cost for FY11 Level 2 Work Generated from FY11 Inspections	Cost per mile for Level 3 Work only	Estimated Cost for all Level 3 Work Generated from FY11 Inspections	Estimated Cost of 50% of Level 3 Work Generated from FY11 Inspections	Estimated cost of Level 3 work to be completed in FY11	FY11 Total Estimated Spending
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
770	\$4,500	\$88	\$67,760	\$1,485	\$1,143,222	\$571,611	\$571,611	\$639,371
310	\$4,500							\$1,393,200
NA								\$178,776
								\$2,211,347
								\$2,043,694

Section 3 - Calculation for Incremental Costs

Calendar Year 2008 Costs

Calendar Year 2010 Costs

Incremental Calendar Year 2010 Costs

\$1,806,357
\$2,043,694
\$237,337

- (1) Opex related to Capex cost estimated at 10.4% of Capital cost, with remainder of Opex work generated from inspections being pure Opex
(2) Calculated based on 25% of FY2008 spending and 75% of FY2009 spending.
(3) In FY2010 and FY2011, 75% of overall mileage will be inspected due to ongoing feeder hardening program through FY2011. Full 100% inspection from FY2012 onward.
(4) Calculated based on the three year average of opex related to capex for FY2007 through FY2009 of 10.4%
(5) Level 3 generated work assumed to be completed at 0% in year of inspection and 50% in each of the following two years.
(6) Calculated based on 25% of FY2010 spending and 75% of FY2011 spending.

The Narragansett Electric Company
Calculation of Incremental OPEX

Section 1 - Calculation for Calendar Year 2008

1	Overhead (Distribution and Subtransmission) Maintenance from Inspection
2	Targeted Pole Replacements
3	Cutout Replacements
4	Feeder Hardening
5	UG Maintenance including Structures and Equipment
6	Total Calendar Year 2008 Costs

CY08 Total Spending (2)
\$0
\$0
\$0
\$0
\$0
\$0
\$0

Section 2 - Calculation for Calendar Year 2010

Fiscal Year 2010 Estimated Costs (1)	Miles (3)	Cost Per Mile for Combined Level 2 & 3 Work	Cost per mile for Level 2 Work only	Estimated Cost for FY10 Level 2 Work Generated from FY10 Inspections	Cost per mile for Level 3 Work only	Estimated Cost for all Level 3 Work Generated from FY10 Inspections	Estimated Cost of 50% of Level 3 Work Generated from FY10 Inspections	Estimated cost of Level 3 work to be completed in FY10 (5)	FY10 Total Estimated Spending (i)
7	770	\$4,500	\$564	\$434,280	\$2,363	\$1,819,738	\$909,869	\$0	\$434,280
8	NA							\$0	\$0
9	NA							\$0	\$0
10	Total Fiscal Year 2010 Estimated Costs								\$434,280

Fiscal Year 2011 Estimated Costs (1)	Miles (3)	Cost Per Mile for Combined Level 2 & 3 Work	Cost per mile for Level 2 Work only	Estimated Cost for FY11 Level 2 Work Generated from FY11 Inspections	Cost per mile for Level 3 Work only	Estimated Cost for all Level 3 Work Generated from FY11 Inspections	Estimated Cost of 50% of Level 3 Work Generated from FY11 Inspections	Estimated cost of Level 3 work to be completed in FY11 (5)	FY11 Total Estimated Spending (i)
11	770	\$4,500	\$564	\$434,280	\$2,363	\$1,819,738	\$909,869	\$1,344,149	\$1,344,149
12	NA							\$0	\$0
13	NA							\$0	\$0
14	Total Fiscal Year 2011 Estimated Costs								\$1,344,149
15	Calendar Year 2010 Costs (6)								\$1,116,682

Section 3 - Calculation for Incremental Costs

16	Calendar Year 2008 Costs
17	Calendar Year 2010 Costs
18	Incremental Calendar Year 2010 Costs

\$0
\$1,116,682
\$1,116,682

- (1) Opex related to Capex cost estimated at 10.4% of Capital cost, with remainder of Opex work generated from inspections being pure Opex
(2) Calculated based on 25% of FY2008 spending and 75% of FY2009 spending. All Opex for Feeder Hardening was Opex Related to Capex at approximately 30% of capital cost.
(3) In FY2010 and FY2011, 75% of overall mileage will be inspected due to ongoing feeder hardening program through FY2011. Full 100% inspection from FY2012 onward.
(4) Calculated based on the three year average of opex related to capex for FY 2007 through FY2009 of 10.4%
(5) Level 3 generated work assumed to be completed at 0% in year of inspection and 50% in each of the following two years.
(6) Calculated based on 25% of FY2010 spending and 75% of FY2011 spending.

The Narragansett Electric Company

Calculation of Incremental Inspection Costs

<u>Section 1 - Calculation for Calendar Year 2008</u>		<u>New England FTEs</u>	<u>Assumed Cost per FTE</u>	<u>New England Costs</u>	<u>Rhode Island Costs (6)</u>	<u>Benefits and Taxes Gross Up (7)</u>	<u>Total Rhode Island Cost</u>
		(a)	(b)	(c)	(d)	(e)	(f)
					24.78%	59.12%	
Inspections -							
1	Overhead/Elevated Voltage/Mandated Underground (1)	22	\$89,411	\$1,967,042	\$487,374	\$288,136	\$775,510
2	Total			\$1,967,042	\$487,374	\$288,136	\$775,510
<u>Section 2 - Calculation for Calendar Year 2010</u>		<u>New England FTEs</u>	<u>Assumed Cost per FTE</u>	<u>New England Costs</u>	<u>Rhode Island Costs (6)</u>	<u>Benefits and Taxes Gross Up (7)</u>	<u>Total Rhode Island Cost</u>
		(a)	(b)	(c)	(d)	(e)	(f)
Inspections -							
3	Overhead/Elevated Voltage/Mandated Underground (1)	22	\$89,411	\$1,967,042	\$487,374	\$288,136	\$775,510
4	SubTransmission Inspections	2	\$75,000	\$150,000	\$37,166	\$21,972	\$59,138
5	Underground Inspections (2)	10	\$75,000	\$750,000	\$185,828	\$109,861	\$295,689
6	External Vendor Costs (3)			\$136,000	\$33,697		\$33,697
7	Supervision & Program Management	1	\$100,000	\$100,000	\$24,777	\$14,648	\$39,425
8	Sub-Total Inspections			\$3,103,042	\$768,841	\$434,617	\$1,203,458
9	QA/QC Staffing (4)	8	\$81,000	\$648,000	\$160,555	\$94,920	\$255,475
10	Vehicles, Equipment, Tools (5)			\$229,500	\$56,863		\$56,863
11	Total			\$3,980,542	\$986,259	\$529,537	\$1,515,796
<u>Section 3 - Calculation for Incremental Costs</u>					<u>Rhode Island Costs (6)</u>	<u>Benefits and Taxes Gross Up (7)</u>	<u>Total Rhode Island Cost</u>
					(d)	(e)	(f)
12	Calendar Year 2008 Costs				\$487,374	\$288,136	\$775,510
13	Calendar Year 2010 Costs				\$986,259	\$529,537	\$1,515,796
14	Incremental Costs				\$498,885	\$241,402	\$740,286

(1) Includes staffing levels for existing elevated voltage and underground inspections as well as FTEs added in Dec 2008 for Overhead Distribution Inspections; FTE cost is the December 2008 average FTE cost in the inspection department.

(2) Does not include additional Operations Personnel, which are included in minimum staffing levels.

(3) Includes vendor costs for streetlight inspections (\$34,000), aerial inspections for subtransmission (\$102,000).

(4) QA/QC Staffing assumes inspection review rate of 25%.

(5) Includes vehicle costs at \$700 per month per FTE.

(6) Rhode Island Allocation taken from April 2009 Service Company Billing Pool 00232, at 24.78%.

(7) Rhode Island benefits and taxes gross up factor on internal labor as calculated on Schedule NG-RLO-2, Page 15 of 39.

Schedule NG-JP-2

Vegetation Management Costs

**National Grid - The Narragansett Electric Company
Vegetation Management Expenses
CY 2008 vs CY2010**

Description of Work	Test Year Amounts	Rate Year Amounts	Rate Year Pro-forma Adjustment
	(a)	(b)	(c)
Cycle Trimming	\$4,428,539	\$5,215,252	\$786,713
Hazard Tree On-Cycle	\$191,935	\$594,890	\$402,956
Hazard Tree Off-Cycle	\$838,566	\$595,521	(\$243,045)
Worst Feeders	\$0	\$163,433	\$163,433
Interim/Spot Trim	\$163,775	\$65,808	(\$97,966)
Sub-Transmission	\$281,365	\$661,793	\$380,428
Police/Flagman Detail	\$197,392	\$973,543	\$776,151
Customer Requests	\$291,585	\$172,401	(\$119,184)
Trouble Maintenance	\$142,276	\$172,401	\$30,125
Other Veg Costs - Contractor	\$243,893	\$180,648	(\$63,245)
Other Veg Costs - All Other	\$258,134	\$289,144	\$31,009
Total Costs	<u>\$7,037,461</u>	<u>\$9,084,834</u>	<u>\$2,047,374</u>

- (a) Included in Company's O&M expense
(b) Per Company's forecast

Schedule NG-JP-3
Capital Spending By Budget Class
2008 – 2010

National Grid - Narragansett Electric Company
Analysis of Test Year through Rate Year Capital

CAPITAL													
Budget Class Blanket													
	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL 2010
1	Asset Replacement	\$1,303,000	\$1,303,000	\$1,303,000	\$1,529,000	\$1,529,000	\$1,529,000	\$1,529,000	\$1,529,000	\$1,529,000	\$1,529,000	\$1,529,000	\$17,670,000
2	Damage/Failure	\$576,000	\$576,000	\$576,000	\$676,000	\$676,000	\$676,000	\$676,000	\$676,000	\$676,000	\$676,000	\$676,000	\$7,812,000
3	Land and Land Rights	\$26,000	\$26,000	\$26,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$357,000
4	Load Relief	\$1,219,000	\$1,219,000	\$1,219,000	\$1,429,000	\$1,429,000	\$1,429,000	\$1,430,000	\$1,430,000	\$1,430,000	\$1,430,000	\$1,430,000	\$16,523,000
5	Meters	\$217,000	\$217,000	\$217,000	\$254,000	\$254,000	\$254,000	\$254,000	\$254,000	\$254,000	\$254,000	\$254,000	\$2,937,000
6	New Business	\$661,000	\$661,000	\$661,000	\$775,000	\$775,000	\$775,000	\$775,000	\$775,000	\$775,000	\$775,000	\$775,000	\$8,968,000
7	Other	\$112,000	\$112,000	\$112,000	\$132,000	\$132,000	\$132,000	\$132,000	\$132,000	\$132,000	\$132,000	\$132,000	\$1,524,000
8	Outdoor Lighting	\$122,000	\$122,000	\$122,000	\$143,000	\$143,000	\$143,000	\$143,000	\$143,000	\$143,000	\$143,000	\$143,000	\$1,653,000
9	Public Requirements	\$309,000	\$309,000	\$309,000	\$363,000	\$363,000	\$363,000	\$363,000	\$363,000	\$363,000	\$363,000	\$363,000	\$4,194,000
10	Reliability	\$703,000	\$703,000	\$703,000	\$825,000	\$825,000	\$825,000	\$825,000	\$825,000	\$825,000	\$825,000	\$825,000	\$9,534,000
11	Storms	\$26,000	\$26,000	\$26,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$31,000	\$357,000
12	Transformers	\$434,000	\$434,000	\$434,000	\$510,000	\$510,000	\$510,000	\$510,000	\$510,000	\$510,000	\$510,000	\$510,000	\$5,892,000
13	Total	\$5,708,000	\$5,708,000	\$5,708,000	\$6,698,000	\$6,698,000	\$6,698,000	\$6,699,000	\$6,699,000	\$6,699,000	\$6,699,000	\$6,699,000	\$77,411,000
14													
15	Plus Incremental Inspection and Maintenance Program Costs	\$226,892	\$226,892	\$226,892	\$226,892	\$226,892	\$226,892	\$226,892	\$226,892	\$226,892	\$226,892	\$226,892	\$2,722,700
16	Less Public Requirements - Reimbursable Projects	(\$309,000)	(\$309,000)	(\$309,000)	(\$363,000)	(\$363,000)	(\$363,000)	(\$363,000)	(\$363,000)	(\$363,000)	(\$363,000)	(\$363,000)	(\$4,194,000)
17	Total Capital	\$5,625,892	\$5,625,892	\$5,625,892	\$6,561,892	\$6,561,892	\$6,561,892	\$6,561,892	\$6,562,892	\$6,562,892	\$6,562,892	\$6,562,892	\$75,939,700

CAPITAL													
Budget Class Blanket													
	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL 2009
Asset Replacement	\$479,137	\$550,217	\$563,744	\$1,303,000	\$1,303,000	\$1,303,000	\$1,303,000	\$1,303,000	\$1,303,000	\$1,303,000	\$1,303,000	\$1,303,000	\$13,320,098
Damage/Failure	\$98,304	\$403,778	\$504,454	\$576,000	\$576,000	\$576,000	\$576,000	\$576,000	\$576,000	\$576,000	\$576,000	\$576,000	\$6,590,536
Land and Land Rights	\$32,240	\$41,913	\$41,240	\$26,000	\$27,000	\$27,000	\$27,000	\$27,000	\$26,000	\$26,000	\$26,000	\$26,000	\$353,393
Load Relief	\$215,488	\$782,886	\$782,213	\$1,219,000	\$1,219,000	\$1,219,000	\$1,219,000	\$1,219,000	\$1,219,000	\$1,219,000	\$1,219,000	\$1,219,000	\$12,243,596
Meters	\$186,288	\$145,597	\$54,143	\$217,000	\$217,000	\$217,000	\$217,000	\$217,000	\$217,000	\$217,000	\$217,000	\$217,000	\$2,339,027
New Business	\$1,035,045	\$1,015,109	\$667,150	\$661,000	\$661,000	\$661,000	\$661,000	\$661,000	\$661,000	\$661,000	\$661,000	\$661,000	\$8,666,304
Other	\$195,445	(\$35,039)	\$603,939	\$112,000	\$112,000	\$112,000	\$112,000	\$112,000	\$112,000	\$112,000	\$112,000	\$112,000	\$1,772,346
Outdoor Lighting	\$26,021	\$113,549	\$143,341	\$122,000	\$122,000	\$122,000	\$122,000	\$122,000	\$122,000	\$122,000	\$122,000	\$122,000	\$1,380,911
Public Requirements	\$169,181	\$379,699	\$334,755	\$309,000	\$309,000	\$309,000	\$309,000	\$309,000	\$309,000	\$309,000	\$309,000	\$309,000	\$3,664,635
Reliability	\$269,470	\$451,016	\$757,183	\$703,000	\$703,000	\$703,000	\$703,000	\$703,000	\$703,000	\$703,000	\$703,000	\$703,000	\$7,804,669
Storms	\$292,143	\$120,376	\$3,469	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000	\$26,000	\$569,988
Transformers	\$258,844	\$68,143	\$68,309	\$434,000	\$434,000	\$434,000	\$434,000	\$434,000	\$434,000	\$434,000	\$434,000	\$434,000	\$4,699,295
Total	\$3,607,605	\$4,117,253	\$4,523,940	\$5,708,000	\$5,709,000	\$5,709,000	\$5,709,000	\$5,709,000	\$5,708,000	\$5,708,000	\$5,708,000	\$5,708,000	\$63,624,799
Less Public Requirements - Reimbursable Projects	(\$169,181)	(\$379,699)	(\$334,755)	(\$309,000)	(\$309,000)	(\$309,000)	(\$309,000)	(\$309,000)	(\$309,000)	(\$309,000)	(\$309,000)	(\$309,000)	(\$3,664,635)
Total Capital	\$3,438,425	\$3,737,554	\$4,189,185	\$5,399,000	\$5,400,000	\$5,400,000	\$5,400,000	\$5,400,000	\$5,399,000	\$5,399,000	\$5,399,000	\$5,399,000	\$59,960,163

CAPITAL													
Budget Class Blanket													
	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL 2008
Asset Replacement	\$926,661	\$1,078,029	\$2,846,221	\$1,007,145	\$505,266	\$1,100,137	\$1,589,150	\$1,680,536	\$1,300,002	\$629,417	\$753,414	\$441,289	\$13,957,289
Damage/Failure	\$233,068	\$515,327	\$1,027,670	\$550,845	\$574,824	\$585,819	\$843,771	\$937,625	\$708,053	\$337,583	\$441,197	\$337,268	\$7,583,049
Land and Land Rights	\$25,957	\$42,494	\$29,890	\$35,226	\$66,141	\$30,329	\$47,567	\$29,469	\$25,573	\$30,912	\$36,028	\$37,514	\$436,741
Load Relief	\$601,388	\$241,739	\$1,084,537	\$1,084,566	\$640,200	\$749,722	\$917,905	\$731,257	\$481,850	\$198,034	\$301,409		\$6,552,575
Meters	\$222,236	\$133,771	\$246,796	\$614,955	\$124,098	\$123,233	\$123,233	\$123,266	\$50,688	\$105,763	\$131,096	\$63,751	\$2,359,967
New Business	\$1,188,642	\$772,963	\$772,081	\$772,963	\$591,748	\$1,254,789	\$1,204,748	\$1,204,789	\$743,509	\$745,691	\$785,676	\$576,491	\$9,961,513
Other	\$159,630	\$229,351	(\$255,296)	(\$224,052)	\$191,920	\$124,330	\$102,200	\$137,725	\$64,924	\$104,639	\$31,631	\$146,378	\$813,382
Outdoor Lighting	\$147,904	\$58,572	\$131,605	\$78,953	\$62,111	\$66,759	\$120,521	\$206,485	\$174,067	\$108,579	\$66,935	\$69,458	\$1,371,949
Public Requirements	(\$144,804)	\$293,771	\$313,129	\$71,013	\$102,745	\$2,918	(\$84,841)	\$153,184	\$158,162	\$182,929	(\$217,546)	\$133,867	\$964,526
Reliability	\$1,026,255	\$774,079	\$1,542,970	\$653,489	\$990,400	\$770,002	\$735,877	\$622,885	\$1,349,872	\$662,834	\$500,044	\$445,511	\$9,974,216
Storms	\$177,197	\$37,482	(\$536,708)	\$37,172	\$10,590	\$2,400	\$206,598	\$95,799	\$120,883	(\$141,006)	\$15,307	\$152,760	\$178,474
Transformers	\$766,709	\$655,152	\$621,833	\$533,595	\$396,564	\$641,242	\$267,282	\$474,468	\$922,699	\$654,405	\$120,883	\$149,871	\$6,341,814
Total	\$5,610,463	\$4,628,180	\$7,224,828	\$5,215,870	\$4,239,492	\$4,788,639	\$6,413,124	\$6,393,193	\$6,100,281	\$3,916,006	\$2,739,810	\$3,125,568	\$60,395,474
Less Public Requirements - Reimbursable Projects	\$144,804	(\$293,771)	(\$313,129)	(\$71,013)	(\$136,745)	(\$2,918)	\$84,841	(\$153,184)	(\$158,162)	(\$182,929)	\$217,546	(\$133,867)	(\$964,526)
Total Capital	\$5,755,287	\$4,334,409	\$6,911,700	\$5,144,857	\$4,136,747	\$4,785,721	\$6,497,965	\$6,240,009	\$5,942,120	\$3,733,077	\$2,957,264	\$2,991,700	\$59,430,948

Schedule NG-JP-4

Cost-Benefit Analysis of Facilities Consolidation

Narragansett Electric Company
Cost Benefit Analysis

New England		
Main Office & Special Purpose Consolidation Summary		
		\$m
		(cost) benefit
	<u>One-off capital costs</u>	
1	Reservoir Woods fit out	(\$42)
2	Northborough special purpose consolidation	(\$17)
	<u>One-off sales proceeds</u>	
3	Westborough	\$22
4	Lincoln, Weybosset & Cumberland	\$16
	<u>Average annual savings</u>	
5	52 Second Avenue	\$4
6	Westborough	\$5
7	Others / property tax	\$3
8	Reservoir Woods (new lease)	(\$12)
9	Estimated Productivity Savings	\$7
10	10 year NPV	\$10
11	20 year NPV	\$29

Schedule NG-JP-5

List of National Grid Facilities

**Narragansett Electric Company
Facilities Supporting Rhode Island Electric Operations**

<u>LOCATION</u>	<u>Type</u>	<u>Street</u>	<u>City</u>	<u>State</u>
PROVIDENCE - MELROSE	OPS CTR	280 Melrose St	Providence	RI
NORTH KINGSTOWN	OPS CTR	4145 Quaker Lane	No. Kingstown	RI
LINCOLN	OPS CTR	642 George Washington	Lincoln	RI
CUMBERLAND	OPS CTR	1595 Mendon Road	Cumberland	RI
CHOPMIST	OPS CTR	Chopmist Hill Rd - Rte	Scituate	RI
MIDDLETOWN	OPS CTR	12 Turner Rd	Middletown	RI
WARREN	OPS CTR	31 Main Street	Warren	RI
WESTERLY	OPS CTR	69 Canal St	Westerly	RI
PROVIDENCE - ALLENS	OPS CTR	642 Allens Avenue	Providence	RI
PROVIDENCE - DEXTER	OPS CTR	439 Dexter Street	Providence	RI
PROVIDENCE - DORRANCE	OPS CTR	88 Dorrance Street	Providence	RI
PROVIDENCE - WEYBOSSET	OPS CTR	100 Weybosset Street	Providence	RI
HICKSVILLE	OFFICE	100 Old Country Road East	Hicksville	NY
HUB DRIVE	OFFICE	HUB Drive	Melville	NY
INVESTMENT RECOVERY	SPECIAL	4651 Crossroads Park	Liverpool	NY
METROTECH	OFFICE	One Metrotech Plaza	Brooklyn	NY
MILLBURY	Training CTR	449 Southwest Cut Off	Worcester	MA
WALTHAM HQ	OFFICE	52 Second Avenue	Waltham	MA
AIR CRAFT HANGER	SPECIAL	1103 Malden Road	Mattydale	NY
NE CDC	SPECIAL	Main Street	Northbridge	MA
NORTHBORO	OFFICE	55 Bearfoot Road	Northborough	MA
SYRACUSE OFFICE	OFFICE	300 Erie Boulevard West	Syracuse	NY
WESTBORO	OFFICE	25 Research Drive	Westborough	MA
WORCESTER	OPS CTR	Southbridge St	Worcester	MA

Schedule NG-JP-6

Facilities Capital Spending

NARRAGANSETT ELECTRIC / dba NATIONAL GRID
RATE YEAR RENT EXPENSE FROM FACILITIES CAPITAL SPENDING

Line	Reservoir Woods					Northborough				
	Date	Depreciation	Carrying Charge	Total	Narragansett Electric Share	Date	Depreciation	Carrying Charge	Total	Narragansett Electric Share
		(a)	(b)	(c)	(d)		(a)	(b)	(c)	(d)
1	Jan-09	\$0	\$0	\$0	\$0	Jan-09	\$0	\$0	\$0	\$0
2	Feb-09	\$0	\$0	\$0	\$0	Feb-09	\$0	\$0	\$0	\$0
3	Mar-09	\$0	\$0	\$0	\$0	Mar-09	\$0	\$0	\$0	\$0
4	Apr-09	\$0	\$0	\$0	\$0	Apr-09	\$0	\$0	\$0	\$0
5	May-09	\$0	\$0	\$0	\$0	May-09	\$0	\$0	\$0	\$0
6	Jun-09	\$172,009	\$205,551	\$377,560	\$22,125	Jun-09	\$0	\$0	\$0	\$0
7	Jul-09	\$172,009	\$204,691	\$376,700	\$22,075	Jul-09	\$0	\$0	\$0	\$0
8	Aug-09	\$172,009	\$203,831	\$375,840	\$22,024	Aug-09	\$0	\$0	\$0	\$0
9	Sep-09	\$172,009	\$202,971	\$374,980	\$21,974	Sep-09	\$0	\$0	\$0	\$0
10	Oct-09	\$172,009	\$202,111	\$374,120	\$21,923	Oct-09	\$0	\$0	\$0	\$0
11	Nov-09	\$172,009	\$201,251	\$373,260	\$21,873	Nov-09	\$0	\$0	\$0	\$0
12	Dec-09	\$172,009	\$200,391	\$372,400	\$21,823	Dec-09	\$0	\$0	\$0	\$0
13										
14	CY 09 Total	\$1,204,064	\$1,420,795	\$2,624,859	\$153,817	CY 09 Total	\$0	\$0	\$0	\$0
15										
16	Jan-10	\$172,009	\$199,531	\$371,540	\$21,772	Jan-10	\$0	\$0	\$0	\$0
17	Feb-10	\$172,009	\$198,670	\$370,680	\$21,722	Feb-10	\$0	\$0	\$0	\$0
18	Mar-10	\$172,009	\$197,810	\$369,820	\$21,671	Mar-10	\$0	\$0	\$0	\$0
19	Apr-10	\$172,009	\$196,950	\$368,959	\$21,621	Apr-10	\$135,015	\$161,343	\$296,358	\$36,274
20	May-10	\$172,009	\$196,090	\$368,099	\$21,571	May-10	\$135,015	\$160,668	\$295,683	\$36,192
21	Jun-10	\$172,009	\$195,230	\$367,239	\$21,520	Jun-10	\$135,015	\$159,993	\$295,008	\$36,109
22	Jul-10	\$172,009	\$194,370	\$366,379	\$21,470	Jul-10	\$135,015	\$159,318	\$294,333	\$36,026
23	Aug-10	\$172,009	\$193,510	\$365,519	\$21,419	Aug-10	\$135,015	\$158,643	\$293,658	\$35,944
24	Sep-10	\$172,009	\$192,650	\$364,659	\$21,369	Sep-10	\$135,015	\$157,968	\$292,983	\$35,861
25	Oct-10	\$172,009	\$191,790	\$363,799	\$21,319	Oct-10	\$135,015	\$157,293	\$292,308	\$35,778
26	Nov-10	\$172,009	\$190,930	\$362,939	\$21,268	Nov-10	\$135,015	\$156,618	\$291,633	\$35,696
27	Dec-10	\$172,009	\$190,070	\$362,079	\$21,218	Dec-10	\$135,015	\$155,943	\$290,958	\$35,613
28										
29	CY 10 Total	\$2,064,109	\$2,337,603	\$4,401,712	\$257,940	CY 10 Total	\$1,215,136	\$1,427,785	\$2,642,922	\$323,494
30										
31										
32										
33										
34	Project Start Date		Aug-08			Project Start Date		Jul-08		
35	Project End Date		Jun-09			Project End Date		Apr-10		
36	Length of Project (mos)		9.995			Length of Project (mos)		21.008		
37	Project Cost		\$40,985,999			Project Cost		\$31,888,007		
38	Avg Monthly Expense		\$4,100,847			Avg Monthly Expense		\$1,517,882		
39	Monthly AFUDC Rate		0.16%			Monthly AFUDC Rate		0.16%		
40	Total Project Cost		\$41,282,180			Total Project Cost		\$32,403,637		
41										
42	Depreciable Life (mos)		240			Depreciable Life (mos)		240		
43	Carrying Cost Rate		6.00%			Carrying Cost Rate		6.00%		
44	Narragansett Electric Share		5.86%			Narragansett Electric Share		12.24%		

DIRECT TESTIMONY

OF

RUDOLPH L. WYNTER, JR.

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I. Introduction and Qualifications

Q. Please state your full name, business address and title.

A. My name is Rudolph L. Wynter, Jr. My business address is One MetroTech Center, Brooklyn, New York 11201. I am Senior Vice President, Customer Interactions Management for National Grid USA Services Company, Inc., a subsidiary of National Grid USA.¹

Q. Please describe your educational background and professional experience.

A. I received a B.S. in Mechanical Engineering from the Pratt Institute in 1988 and an M.B.A. from Fordham University in 1995. In 1988, I joined Brooklyn Union Gas Company (which later became a subsidiary of KeySpan Corporation) as a management trainee. I have held various positions in system design and engineering, operations, gas marketing, and strategic planning prior to my current position.

Q. Have you previously testified before the Rhode Island Public Utilities Commission (“Commission”)?

A. No I have not.

Q. Please briefly describe your current areas of responsibility for National Grid.

A. I am responsible for the National Grid’s call center operations in the US, web strategy

¹ Throughout this testimony, I will refer to National Grid USA and its subsidiaries as “National Grid.” For purposes of clarity, when I intend to refer to Narragansett Electric Company, I will use the term the “Company.”

1 and development as well as customer satisfaction improvement initiatives.

2
3 **II. Purpose of Testimony**

4 **Q. What is the purpose of your testimony?**

5 A. The purpose of my testimony is to describe the Company's management of its
6 uncollectible accounts as well as its proposal for recovery of delivery and commodity-
7 related uncollectible accounts expense.

8
9 **III. Uncollectible Accounts Experience**

10 **Q. Are you familiar with the Company's experience with regard to uncollectible**
11 **accounts and its efforts to mitigate this expense?**

12 A. Yes. The uncollectible accounts expense incurred by the Company each year is a
13 significant focus of my attention, as are the Company's efforts to mitigate this cost. As I
14 will discuss later in my testimony, commodity price increases have lead to a substantial
15 increase in the Company's level of uncollectible accounts (sometimes referred to as net
16 write-offs) in recent years. In response to this increase, the Company has substantially
17 ramped up its efforts to increase collections through an increase in calls and field visits to
18 its customers. Nevertheless, commodity prices and economic factors remain the primary
19 drivers of uncollectible accounts expense. As a result, the impact that the Company can
20 have on controlling this expense is limited.

1 **Q. Please summarize the Company's uncollectible accounts expense over the past few**
2 **years.**

3 A. The Company's overall level of uncollectible accounts expense is reflected in the ratio of
4 net write-offs to total revenue. The rate for each year was derived by dividing the
5 Company's net write-offs by its total billed revenues, with net write-offs consisting of
6 gross write-offs less recoveries during the year from accounts that were previously
7 written off. In addition to evaluating uncollectible accounts expense from an overall
8 revenue perspective, the Company performed this analysis on a disaggregated basis for
9 delivery and commodity revenues separately
10

11 **Q. What has the Company's net write-off experience been in recent years?**

12 A. For the test year and the four years prior to the test year, the rate of net write-offs as a
13 percentage of revenues and the net write-off amounts were as follows:

	<u>Rate</u>	<u>Amount</u>
2004	0.72%	\$5,827,520
2005	0.67%	\$6,059,581
2006	1.04%	\$10,384,405
2007	1.17%	\$11,000,164
2008	1.08%	\$12,412,851

20 Schedule NG-RLW-1 shows the derivation of these amounts along with the commodity
21 and delivery specific data.
22

1 **IV. Factors Affecting Uncollectible Accounts Expense**

2 **Q. The data you provided shows that the Company's uncollectible accounts expense**
3 **has been significantly higher in recent years than it had been historically. Why has**
4 **that occurred?**

5 A. The increase appears to be directly related to the increase in electric commodity costs that
6 has occurred in recent years. Schedule NG-RLW-2 shows the correlation between
7 Standard Offer rates and the level of write-offs experienced by the Company. The data in
8 the table above, when viewed in light of Schedule NG-RLW-2, shows two things. First,
9 the dollar amount of write-offs has increased significantly in the last several years.
10 Second, when the level of write-offs experienced a substantial increase, the ratio of write-
11 offs to revenues (the write-off rate) changed as well. This relationship is consistent with
12 what one would expect. Increasing electricity costs lead to higher net write-offs because
13 commodity costs are such a significant portion of customers' bills. In addition, a
14 substantial increase in electric bills causes a higher percentage of customers to be unable
15 to pay their bills, which in turn increases the write off rate and not just the absolute level
16 of net write-offs.

17
18 **Q. Are there any other factors that affect the Company's ability to mitigate the level of**
19 **write-offs it has experienced?**

20 A. Yes. Certainly, the economic environment in Rhode Island also has an impact on the
21 level of collections achieved by the Company in any given year. As I will discuss below,
22 the Company has considerable concern that the impact of the steep recession underway in

1 Rhode Island and throughout the country will create significant upward pressure on the
2 level of uncollectible accounts. Other factors that can affect the uncollectible rate are the
3 weather (which, because of the weather sensitivity of the Company's load, can have a
4 significant impact on the size of customers' bills), other energy costs (such as gasoline,
5 which compete for customer dollars), other significant costs faced by customers (such as
6 rising health care costs), and the level of government assistance and similar programs that
7 are available to assist customers with their utility bills.
8

9 **Q. What effect do customer termination restrictions and other regulatory requirements**
10 **relating to billing and collection have on the Company's uncollectible accounts**
11 **expense?**

12 A. To some extent, there is an inherent conflict between the ratemaking policies that require
13 the Company to work to mitigate the level of uncollectible accounts and public policies
14 imposing restrictions on the billing and collection process to protect the health and safety
15 of customers. The Company is extremely sensitive to the fact that electric service is a
16 public necessity and that public-interest considerations must be taken into account in
17 relation to service initiation, shut-off, and restoration requirements. The health and safety
18 of customers is of paramount importance to the Company, and the Company is
19 committed to cooperating with the Commission in addressing these issues. However,
20 decisions made in relation to billing and collection requirements and issues such as the
21 timing and term of winter protection periods have the effect of counteracting to some
22 extent the Company's efforts to collect revenue and mitigate the level of write-offs it

1 experiences. Because these policies tend to create additional upward pressure on the
2 Company's net write-offs, it is important that the Commission recognize this relationship
3 by striking an appropriate balance between establishing customer protections and
4 providing for the recovery of uncollectible account expense.

5
6 **Q. Please explain how the winter shut off protection periods that the Company must**
7 **comply with affect the level of write-offs.**

8 A. Extending the winter protection period has at least two significant effects on the
9 Company's level of write-offs. First, most obviously, it limits the collection activities
10 that the Company can undertake, which over the long run reduces the effectiveness of the
11 Company's collections efforts and tends to increase the level of write-offs. Second,
12 although it may be counterintuitive, an extension of the winter protection period shifts the
13 timing of write-offs to later in the year because the Company does not write off accounts
14 due to service terminations during the period that customers are protected from such
15 actions. It is only after the protection period concludes and the Company resumes the full
16 extent of permitted collections activity, including service terminations, that the true level
17 of uncollectible accounts becomes known. Thus, the most recent uncollectible accounts
18 data for the Company may be masking the full impact of recent high commodity costs
19 and the downturn in the economy. The true impact of these forces is not likely to be
20 known until a number of months after the April 15 expiration date of the current
21 protection period, when the full array of collection activities resumes and has been in
22 place for a period of time.

1 **Q. Given the recent downturn in commodity costs, do you expect the Company to**
2 **experience a lower uncollectibles rate going forward?**

3 A. No. Although the recent decline in Standard Offer costs resulting from an overall decline
4 in wholesale energy prices could have a moderating effect on the level of write-offs, the
5 significant economic downturn that Rhode Island and the nation are experiencing has
6 become a significant new concern with regard to managing the level of uncollectible
7 accounts expense. The Company is concerned that the impact of the recession and the
8 dramatic increase in unemployment that has accompanied it will more than counteract
9 any beneficial impact on the Company's uncollectibles expense that may result from a
10 reduction in Standard Offer rates. I should add that there also continues to exist a real
11 risk that the recent moderation in commodity costs may be temporary in nature.

12
13 **V. Overview of Collections Process**

14 **Q. Please describe how the Company manages its collections process and seeks to**
15 **minimize its uncollectible accounts expense.**

16 A. The Company uses a full suite of collection activities and strategies from outbound calls
17 to field visits and, ultimately, service termination for non-payment. To determine the
18 appropriate collection strategy for each customer risk group, the Company takes a
19 sophisticated, flexible approach, rather than following a one-size-fits-all approach.
20 Specifically, for each customer account that is in arrears, the Company evaluates the
21 account and customer characteristics and scores the account using a behavioral scoring
22 model. The output from the model assists the Company in determining the appropriate

1 collection actions based on the customer's past payment behavior. Customers are divided
2 into five risk groups, with each group being assigned a treatment path determined to be
3 the most likely to be successful in the most cost-effective manner. In prioritizing the
4 accounts in the portfolio, the Company seeks to identify lower risk customers that will
5 likely self-cure and higher risk customers that are likely to require more assertive
6 treatment pathways. That way, an appropriate response is put in place for a customer
7 who is late for the first time, as opposed to one who has paid late on many occasions, or
8 for a smaller account than for a larger account. There are many factors that influence
9 how the Company responds to address a given arrearage, but the process attempts to gear
10 the response to the specific circumstances of the individual customer. This process of
11 analyzing/scoring accounts and determining a collection strategy geared to that account is
12 repeated each month, with priorities being set and follow up steps determined. The
13 approach attempts to employ the most cost-effective steps are taken to address the
14 Company's overall collections portfolio. In addition to the specific steps in the
15 collections process, the Company strives to communicate the programs that are available
16 to assist lower income customers with paying their bills. This assistance is particularly
17 important in the current economic conditions because there are many customers who are
18 newly unemployed and are unfamiliar with the assistance programs that are available.

19
20 In addition, the Company's collection strategies are continually reviewed using a
21 "champion /challenger" methodology. The preferred collection approach for a given
22 customer risk group is referred to as the "champion". To test whether a particular

1 champion strategy is in fact the most effective approach, periodically a portion of the
2 accounts with particular risk attributes are selected and a different approach (or
3 “challenger”) is applied. The results are reviewed at the end of the quarter, and if the
4 challenger approach proves more effective in generating collections, it is adopted more
5 broadly.

6
7 **VI. Proposal for Recovery of Uncollectible Accounts Expense**

8 **Q. What is the Company’s proposal for the recovery of its uncollectible accounts**
9 **expense?**

10 A. The Company is proposing two separate approaches for the recovery of its uncollectible
11 accounts expense. For the portion related to Standard Offer Service, the Company is
12 proposing to recover its actual commodity-related net write-offs on a reconciling basis
13 through Standard Offer rates. For the delivery-related portion, the Company proposes to
14 establish an amount for recovery through distribution rates, consistent with my
15 understanding of the Commission’s methodology for calculating the representative level
16 of net write-offs to be included in base rates. However, the Company is also proposing to
17 establish a mechanism for the recovery of delivery-related write-offs through a rate
18 adjustment mechanism that would apply if the Company experiences a substantial
19 increase in the level of net write-offs and can demonstrate to the Commission’s
20 satisfaction that the circumstances causing that increase are beyond the Company’s
21 control.

A. Proposal for Recovery of Commodity-Related Uncollectible Accounts Expense

Q. How is the Company proposing to recover commodity-related uncollectible accounts expense and wholesale and retail administrative costs from base rates to Standard Offer rates?

A. The Company is proposing the amount of uncollectible accounts expense associated with commodity service should be excluded from the Company's distribution revenue requirement and collected through Standard Offer Service rates instead. Initially, the level of uncollectible accounts expense associated with commodity service will be set at the level estimated for calendar year 2008. In addition, the Company is proposing to exclude the administrative costs associated with providing Standard Offer Service from the distribution revenue requirement and to recover these costs in an adder to Standard Offer Service rates.

Q. How has the Company determined the amount of uncollectible accounts expense and commodity-related administrative costs to be recovered through Standard Offer service rates and what remaining portion of that expense relates to providing delivery service?

A. The testimony of the Company's revenue requirement witness, Mr. Robert O'Brien, describes how the Company has removed the commodity-related portion of uncollectible accounts expense from the distribution revenue requirement and how it has established the level of delivery-related uncollectible accounts expense that will remain in base distribution rates.

1 **Q. Why do you believe allowing the recovery of actual commodity-related uncollectible**
2 **accounts expense and commodity-related administrative costs on a reconciling basis**
3 **is an appropriate ratemaking policy?**

4 A. First, although distribution companies are obligated to procure electricity in wholesale
5 commodity markets to meet the needs of their customers, they have no effective control
6 over the prevailing conditions or prices in those markets. In particular, because Standard
7 Offer rates are heavily dependent on crude oil and natural gas prices, Standard Offer
8 costs have proven highly volatile and susceptible to price spikes. Because the
9 commodity-related portion of a customer's bill represents a majority of the overall
10 electric bill, the level of uncollectible accounts expense is closely correlated with the
11 price of commodity supplies.. As a result, when electricity commodity prices rise, it
12 becomes increasingly difficult for customers to pay their bills. As described previously,
13 this condition is exacerbated for lower income customers and financially troubled
14 commercial and industrial customers about whom the Company is particularly concerned.

15
16 Second, full unbundling of electric rates, with costs properly allocated between
17 distribution service and commodity service, promotes retail electric competition.

18 Adopting an approach that reflects the cost of commodity service in Standard Offer
19 Service rates, including the cost of uncollectibles and administration, would remove
20 barriers to competition created by the fact that competitive suppliers must recover all of
21 their costs through the prices they charge. The implementation of full reconciliation of

1 net write-offs will put Standard Offer Service and competitive supply service on more of
2 a par.

3
4 Third, a fully reconciling mechanism protects the interests of both customers and the
5 Company because customers are not required to pay a level of uncollectible accounts
6 expense and commodity-related administrative costs in excess of that actually incurred by
7 the Company, nor is the Company required to bear the cost of uncollectible accounts
8 expense and commodity-related administrative costs in excess of the level included in
9 Standard Offer service rates when it has no opportunity to earn a profit on that service.

10 Fourth, as I discussed earlier, full reconciliation of commodity-related uncollectible
11 accounts expense helps to strike an appropriate balance between the customer protections
12 afforded by the important policies designed to protect various groups of at-risk utility
13 customers and the cost of those policies.

14
15 Finally, the Company's proposal is consistent with the Commission's recognition, in
16 Docket 3401 (2001) and Docket 3943 (2008) for the Company's gas division, of the
17 appropriateness of recovering commodity related bad debt costs through the commodity
18 charge.

19
20 **Q. What empirical evidence is there that high commodity prices have affected the**
21 **Company's level of write-offs?**

1 A. As I previously noted, the close correlation between commodity costs and write-offs is
2 well demonstrated in Schedule NG-RLW-2. It is worth noting that, while customers are
3 facing financial pressure from volatile commodity prices, they must also bear the burden
4 of similar increases in the price of natural gas, gasoline, and other goods and services.
5 The compounding effect of these various price changes is significant and has the
6 inevitable effect of putting additional pressure on the Company's ability to manage its
7 level of write-offs. While the Company can ramp-up its collection efforts (as it has), the
8 effect of price volatility is much larger than what can be achieved through more
9 aggressive collection efforts that are both cost-effective and comply with applicable
10 regulations. As a result, it is necessary and appropriate to allow for recovery of actual
11 commodity-related net write-offs through Standard Offer Service rates because these
12 costs are necessarily incurred to provide commodity service to customers, commodity
13 price variations are substantial, these forces are not subject to the Company's control, and
14 the Company makes no profit on commodity service.

15
16 **Q. What is the Company's specific proposal for implementing a fully reconciling cost**
17 **recovery mechanism for commodity-related uncollectible accounts expense?**

18 A. The testimony of Mr. O'Brien presents the revenue requirement proposed by the
19 Company for establishing its costs to provide distribution service to be recovered through
20 base rates. As I indicated earlier and as Mr. O'Brien explains in detail, the Company has
21 removed all commodity-related uncollectible accounts expense and commodity-related
22 administrative costs from this revenue requirement. Instead, the Company is requesting

1 that its commodity-related costs be treated as part of its annual adjustment to its Standard
2 Offer Service rates. The specific language of the proposal is set forth in the proposed
3 Standard Offer Adjustment Provision included as Schedule NG-RLW-3. As set forth in
4 the proposed tariff language, the Company's commodity-related uncollectible accounts
5 costs would be reconciled, along with other administrative costs of providing Standard
6 Offer Service, through an adjustment to the Standard Offer Service Adjustment Factor.

7
8 Following the issuance of the Department's order in this proceeding, the Company
9 proposes to establish Standard Offer Service rates that would recover an initial target
10 level of commodity-related uncollectible accounts expenses based on calendar year 2008.
11 Thereafter, the Company would track its actual commodity-related uncollectible accounts
12 expense and recover only the actual amount on a fully reconciling basis through Standard
13 Offer Service rates.

14
15 **B. Proposal for Recovery of Delivery-Related Uncollectible Accounts Expense**

16 **Q. Please explain the Company's proposal regarding the treatment of the delivery-**
17 **related portion of uncollectible accounts expense.**

18 A. In this proceeding, the Company's base rate revenue requirement includes uncollectible
19 costs related to delivery revenue only, as supported by the testimony and schedules of
20 Mr. O'Brien. In addition, the Company is proposing that an allowance be made for
21 recovery of delivery-related net write-offs in excess of the amount reflected in base rates

1 under certain conditions and subject to the Commission's approval in a future
2 proceeding.

3
4 **Q. What is the Company's specific proposal for a mechanism that would provide it**
5 **with an opportunity to recover a higher level of delivery-related net write-offs**
6 **through an adjustment to base rates?**

7 A. As I indicated earlier, over the last few years, the Company has experienced a significant
8 escalation from its historical level of net write-offs, and there is no indication that the
9 factors causing this increase will abate significantly in the near future. The Company is
10 particularly concerned that the current steep downturn in the economy, as well as the
11 potential for commodity prices to resume their upward climb, will present a significant
12 challenge to the Company that cannot be met entirely through the collection efforts on a
13 cost-effective basis. This is particularly true given the concerns expressed by many that
14 the Company should be particularly attentive to the impact of shutting off service to
15 customers who are struggling to pay their utility bills as a result of the current economic
16 downturn.

17
18 To address these concerns, the Company is proposing that the Commission authorize the
19 Company to file for an adjustment to distribution rates that would recover the actual level
20 of delivery-related net write-offs for a given year if the Company demonstrates that (1) it
21 experienced a substantial increase in delivery-related net write-offs in that year, (2) the
22 Company has not diminished its collection processes and activities and (3) the Company

1 has experienced one or more events beyond its control that have an impact on the level of
2 net write-offs, similar to the rate adjustment mechanisms for exogenous event cost
3 changes in some long-term rate plans. The Company recognizes that it would bear the
4 burden of proof in any such proceeding.

5
6 **Q. What level of increase would be considered substantial?**

7 A. The Company proposes that an increase equal to at least \$500,000 be deemed to be
8 substantial. This amount is consistent with exogenous event thresholds previously
9 adopted by the Commission in Dockets 2930 and 3617. Once the threshold is exceeded,
10 the Company would be entitled to recovery of the full amount in excess of the amount
11 provided for in base distribution rates for the relevant year, so long as it has demonstrated
12 that the identified circumstances warranting recovery have been satisfied.

13
14 **Q. On what basis would the Commission be able to determine that the Company had**
15 **not diminished its collection activities and processes, thereby not contributing**
16 **towards the increase in delivery-related net charge offs?**

17 A. This standard would be presumed to have been met if the Company had maintained the
18 following metrics:

19 Outbound calls: 510,000

20 Field visits relating to collections: 41,000

21 These levels are based on the activity anticipated based on the funding reflected in the
22 Company's cost of service submitted in this case. If the Company did not maintain this

1 level of activity, it would have to demonstrate that the activities and processes it had
2 implemented instead were prudently designed to achieve the same or better level of
3 collections in a manner that was equally or more cost-effective.
4

5 **Q. What circumstances would warrant recovery of an increase in delivery-related net**
6 **write-offs for a given year?**

7 A. The Company proposes that the Commission establish the circumstances that would
8 allow for cost recovery in its final order in this proceeding. If the Company is able to
9 demonstrate that its actual delivery-related net write-offs in a given year exceed the
10 threshold level and meet one of the circumstances designated by the Commission in its
11 final order in this proceeding, the Company would be allowed to recover its actual costs
12 for that year through a reconciling adjustment to base distribution rates. The
13 circumstances that the Company would be required to demonstrate would include: (1)
14 accounting changes affecting the Company's level of write-offs; (2) regulatory, judicial,
15 or legislative changes affecting the Company's collections; (3) market forces beyond the
16 Company's control including a significant increase in or sustained elevated levels of
17 Standard Offer Service rates, increased unemployment or sustained high levels of
18 unemployment in the Company's service area when compared to historical levels, or
19 other economic circumstances affecting collections and not within the Company's
20 control; or (4) a change in public policy directives affecting collection practices.
21

1 **Q. How would the Commission determine that market forces beyond the Company's**
2 **control or a change in public policy had caused the increase in net write-offs?**

3 A. If one of those circumstances was the claimed basis for the increase in net write-offs, it
4 would be presumed to be the cause of the increase if the Company's collection activities
5 satisfied the standards set forth above—i.e., if the Company established that it had
6 maintained the identified level of outbound calls and field visits during the relevant
7 period.
8

9 **Q. Why is the adjustment mechanism that the Company is proposing in the public**
10 **interest?**

11 A. First, in the absence of such a mechanism, the potential for the Company to need to file a
12 new distribution rate case would be significantly increased. Avoiding such a filing is
13 beneficial because it will save significant expense and resources for the Company and the
14 Commission. Second, subjecting the Company's net income to significant swings arising
15 from forces beyond its control can have a significant detrimental impact on investor
16 perception of the Company's risk profile, which will make it harder for the Company to
17 attract the capital it needs to invest in its system. The forces affecting the Company's
18 ability to manage its uncollectible accounts are ones that are over and above anything the
19 Company has faced in the past in this regard. Certainly, investors accept the risk of
20 normal swings in levels of uncollectible accounts, but the swings that may be experienced
21 in the next few years could be well beyond anything of that nature.
22

1 **Q. Why can't a change in the level of uncollectible accounts be dealt with through**
2 **traditional ratemaking processes?**

3 A. In addition to the reasons I have already discussed, the problem stems from the potential
4 for the level of write-offs to change rapidly, by a significant amount and as a result of
5 factors beyond the Company's control. The purpose of using test year data and adjusting
6 it to produce a rate year cost of service is to provide *representative* data from which to
7 calculate a utility's revenue requirement. In an environment where the data on which the
8 revenue requirement is established may grossly understate the actual expense incurred by
9 a utility, but where the future expense is not yet known and measurable, it is appropriate
10 to apply an approach that allows for some flexibility. As with pension and other post-
11 employment benefits in Docket No. 3943 the Commission has shown a creative approach
12 to such problems and provided for rate adjustments with regard to single cost factors
13 when a change in expense levels was considered to be significant and beyond the control
14 of the Company.

15
16 **Q. If such a mechanism were approved by the Commission, would it result in ongoing**
17 **reconciliation of delivery-related uncollectible accounts expense?**

18 A. The purpose of the mechanism is to allow the Company to seek an adjustment relating to
19 a detrimental impact in a given year caused by forces beyond its control that are
20 sufficiently significant that the Commission determines that recovery of the amount in
21 excess of the level reflected in base distribution rates is appropriate. After recovery of
22 excessive delivery-related uncollectible accounts expense related to that specific year is

1 complete, and assuming that delivery-related uncollectible accounts expense returns to a
2 level within the threshold, the adjustment factor would be set at zero unless and until the
3 Commission determined again that the circumstances described above existed.
4

5 **Q. As the economy declines further into recession, are there factors other than the ones**
6 **you've already mentioned that can further diminish the Company's ability to**
7 **control the level of uncollectibles?**

8 A. One factor that the Company is constantly balancing and which I briefly discussed above
9 is the desire the Company shares with the Commission and other state policy makers to
10 avoid exacerbating the financial pressures that low and moderate income customers
11 experience in a declining economy. With the substantially rising unemployment levels
12 that Rhode Island is now suffering, the reality is that even middle income families may
13 have a difficult time paying their electric bills. In just the last year, the unemployment
14 rate in Rhode Island jumped from 6.3% in January 2008 to 10.3% in January 2009 (and
15 to 11.1% in April 2009)², which is a significant measure of the severity of the economic
16 decline that customers are experiencing. Moreover, in addition to existing consumer
17 protections and ongoing efforts to protect the interests of low income customers, the
18 Commission has recognized the need to accommodate customers who have difficulties
19 paying their bills by establishing a protection period on winter service terminations that
20 runs from November 1 through April 15 for protected customers, which the Company has
21 during past years voluntarily extended to May 1. Although this is an initiative that the

² Source: Rhode Island's *Local Area Unemployment Statistics* at www.dlt.ri.gov/lmi/laus/state/seas.htm.

1 Company fully supports, as I noted earlier these programs have a cost for all customers
2 that must be recognized. This issue has been of concern to the Company in the past, and
3 should be recognized as part of the rate treatment determined in this case.
4

5 The Company's commercial and industrial customer service representatives have also
6 seen clear evidence that the weak economy is negatively impacting business customers.
7 A number of the more significant business customers in the Company's service area have
8 reduced operations or closed facilities. One can reasonably conclude from this that more
9 businesses than usual will be operating close to the edge of financial survival, and
10 therefore will have a difficult time meeting their financial obligations, including utility
11 bills.
12

13 **Q. You've indicated that the Company is concerned about the ability of low income**
14 **customers to pay their electric bills. Is the Company making any particular**
15 **proposals in this case to augment existing programs that benefit these customers?**

16 A. Yes. The Company has recently created a Consumer Advocate role to assist eligible
17 customers in identifying and enrolling in all programs available to them. Activities
18 include design, implementation, enrollment goals, analysis, and reporting on programs
19 and benefits of such programs. The options available to eligible customers may include
20 but are not limited to low income rates, arrears management programs, fuel funds, the
21 low income heating assistance program, and fuel assistance. In addition to facilitating
22 customers in connecting them with these programs, the Company is proposing the

1 Consumer Advocate role in Rhode Island to better serve the Company's customers.
2 Consumer Advocacy is responsible for, among other things, developing strong
3 relationships with the CAP agencies as well as regulatory offices in order to improve
4 implementation of the Company's low income discount and other public benefit
5 programs. The testimony of Mr. O'Brien includes the proposed adjustment to the
6 Company's cost of service for this proposal.
7

8 **VII. Operating Expense for Credit and Collections Function**

9 **Q. Please describe the specific costs that the Company has included in its revenue**
10 **requirement in this case with regard to its credit and collections functions.**

11 A. The revenue requirement for the credit and collections functions reflects total expense of
12 \$3,601,000, of which \$3,225,000 was test year expense. The incremental expense
13 reflects the fact that during the test year, the Company began to implement its
14 enhancements to its collection efforts to attempt to mitigate further increases in
15 uncollectible accounts expense, but the roll-out of that plan was not completed until after
16 the conclusion of the test year. The adjustment of \$376,255 to reflect full
17 implementation of the mitigation plan, as shown in Schedule NG-RLW-4, is for the
18 incremental cost associated with a substantially increased level of outbound calls as well
19 as the increased level of inbound calls that the higher level of collections activity
20 generates (both from the additional field visits and outbound calls). Although the
21 mitigation plan also involves a higher level of field visits, there is no incremental cost
22 associated with that activity that needs to be reflected in credit and collections costs

1 because the higher level of activity is being accomplished through a reassignment of
2 existing resources.
3

4 **Q. What are the specific increases in collection activities that the Company has**
5 **implemented as part of this program?**

6 A. The increased budget for collections activity has enabled the Company to increase field
7 visits by over 18% and to implement a robust outbound calling program that has resulted
8 in an increase of approximately 510,000 outbound calls. As I noted above, the increased
9 level of field visits has also resulted in a substantial increase in the number of inbound
10 calls, i.e., calls from customers with accounts in arrears who are making a payment or
11 want to enter into a payment arrangement.
12

13 **VIII. Conclusion**

14 **Q. Does that conclude your testimony?**

15 A. Yes. It does.

Exhibits

Schedule NG-RLW-1	Net Charge-Off Rates
Schedule NG-RLW-2	Standard Offer Service Rates vs. Net Charge-Offs
Schedule NG-RLW-3	Proposed Standard Offer Adjustment Provision
Schedule NG-RLW-4	Adjustment to Revenue Requirement for the Company's Mitigation Plan

Schedule NG-RLW-1

Net Charge-Off Rates

Narragansett Electric Company
Net Charge-offs as a Percentage of Revenues
For the Twelve Months Ended December 31

<u>Year</u>	<u>Net Charge-offs</u> (a)	<u>Total Revenues</u> (b)	<u>Charge Off Rate</u> (c)	<u>Net Charge-off Alloc to Commodity</u> (d)	<u>Net Charge-off Alloc to Delivery</u> (e)	<u>Commodity Revenue</u> (f)	<u>Delivery Revenue</u> (g)	<u>Commodity Charge Off Rate</u> (h)	<u>Delivery Charge Off Rate</u> (i)
2004	\$5,827,520	\$813,006,694	0.72%	\$3,025,957	\$2,801,564	445,533,960	\$367,472,734	0.68%	0.76%
2005	\$6,059,581	\$899,021,888	0.67%	\$3,375,086	\$2,684,494	514,385,313	\$384,636,575	0.66%	0.70%
2006	\$10,384,405	\$996,645,154	1.04%	\$6,451,649	\$3,932,756	\$613,381,271	\$383,263,883	1.05%	1.03%
2007	\$11,000,164	\$942,059,186	1.17%	\$7,097,331	\$3,902,833	\$565,570,733	\$376,488,453	1.25%	1.04%
2008	\$12,412,851	\$1,150,295,839	1.08%	\$7,861,885	\$4,550,966	\$756,346,382	\$393,949,457	1.04%	1.16%

- (a) Page 2 of 2, Column (d)
 (b) Column (f) + Column (g)
 (c) Column (a) ÷ Column (b)
 (d) 2006-2008: Workpaper NG-RLO-(x), Page 1, Line (5)
 (e) Column (a) - Column (d)
 (f) Form 1, Page 300, Line (14)
 (g) Form 1, Page 300, Line 26 less balances in A/Cs 412000, 451000, 454000, 454011, 4560035, 456040 and 456045
 2008 adjusted for late entry posted after December 2008 and not reflected in Form 1
 (h) Column (d) ÷ Column (f)
 (i) Column (e) ÷ Column (g)

Narragansett Electric Company
Net Charge-Offs
For the Twelve Months Ended December 31

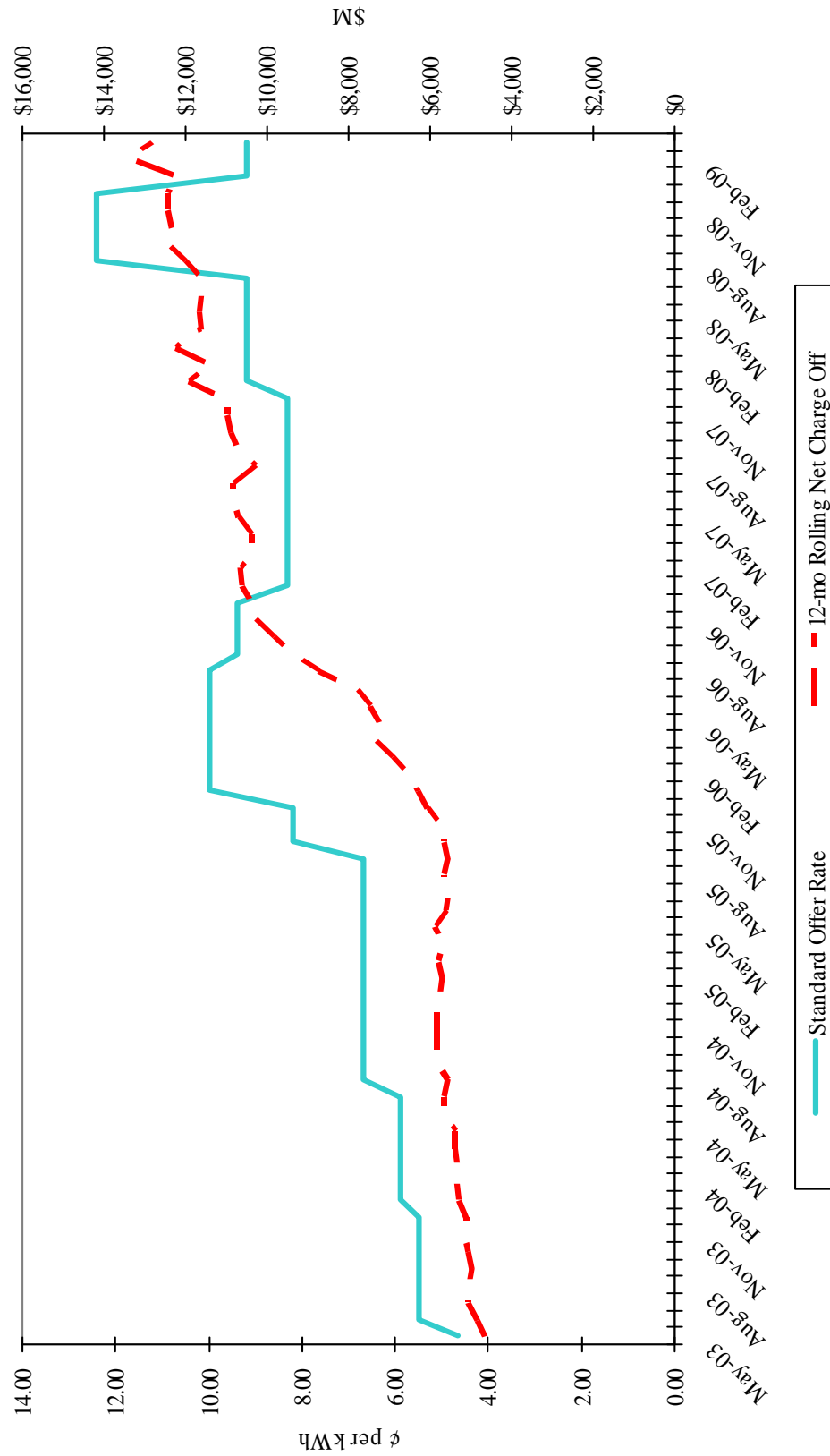
	Beginning Balance <u>FERC 144</u> (a)	Adjustments to Reserve <u>FERC 904</u> (b)	Ending Balance <u>FERC 144</u> (c)	Net <u>Charge Offs</u> (d)
2004	\$4,934,635	\$5,307,170	\$4,414,285	\$5,827,520
2005	\$4,414,285	\$8,290,947	\$6,645,652	\$6,059,581
2006	\$6,645,652	\$11,439,881	\$7,701,128	\$10,384,405
2007	\$7,701,128	\$13,086,541	\$9,787,505	\$11,000,164
2008	\$9,787,505	\$12,748,167	\$10,122,821	\$12,412,851

- (a) Narragansett Electric balance sheet
(b) Form 1, Page 322, Column (b), Line (162)
(c) Narragansett Electric balance sheet
(d) Column (a) + Column (b) - Column (c)

Schedule NG-RLW-2

Residential Standard Offer Service Rates v. Net Charge-Offs

Narragansett Electric Standard Offer Service Rates v. Rolling 12-Month Total Bill Net Charge-Offs



nationalgrid
The power of action.

Schedule NG-RLW-3

Proposed Standard Offer Adjustment Provision

R.I.P.U.C. No. 2014
Sheet 1
Canceling R.I.P.U.C. No. 2002

**THE NARRAGANSETT ELECTRIC COMPANY
STANDARD OFFER ADJUSTMENT PROVISION**

The prices contained in the applicable rates of the Company are subject to adjustment to reflect the power purchase costs incurred by the Company in arranging Standard Offer and Last Resort Service, which costs are not recovered from customers through the Standard Offer Service and Last Resort Service rates, including, but not limited to, the costs incurred by the Company to comply with the Renewable Energy Standard established in R.I.G.L. Section 39-26-1, the costs to comply with the Commission's Rules Governing Energy Source Disclosure and administrative costs.

On an annual basis, the Company shall perform two reconciliations for its total cost of providing Standard Offer Service: 1) the Standard Offer Service Supply Reconciliation and 2) the Standard Offer Service Administrative Cost Reconciliation. In the Standard Offer Service Supply Reconciliation, the Company shall reconcile its total cost of purchased power for Standard Offer and Last Resort Service supply against its total purchased power revenue (appropriately adjusted to reflect the Rhode Island Gross Receipts Tax), and the excess or deficiency ("Standard Offer/Last Resort Adjustment Balance") shall be refunded to, or collected from, customers through the rate recovery/refund methodology approved by the Commission at the time the Company files its annual reconciliation. Any positive or negative balance will accrue interest calculated at the rate in effect for customer deposits.

For purposes of this reconciliation, total purchased power revenues shall mean all revenue collected from Standard Offer and Last Resort Service customers through the Standard Offer and Last Resort Service rates for the applicable 12 month reconciliation period. If there is a positive or negative balance in the then current Standard Offer/Last Resort Adjustment Balance outstanding from the prior period, the balance shall be credited against or added to the new reconciliation amount, as appropriate, in establishing the Standard Offer/Last Resort Adjustment Balance for the new reconciliation period.

Annually, the Company shall determine the Standard Offer/Last Resort Service Supply Adjustment Balance for the prior calendar year and make a filing with the Commission. The Company will propose at that time a rate recovery/refund methodology to recover or refund the balance, as appropriate, over the subsequent twelve month period or as otherwise determined by the Commission. The Commission may order the Company to collect or refund the balance over any reasonable time period from (i) all customers, (ii) only Standard Offer and/or Last Resort Service customers, or (iii) through any other reasonable method.

In the Standard Offer Administrative Cost Reconciliation, the Company shall reconcile its administrative cost of providing Standard Offer Service with its Standard Offer Service revenue associated with the recovery of administrative costs, and the excess or deficiency,

R.I.P.U.C. No. 2014
Sheet 2
Canceling R.I.P.U.C. No. 2002

**THE NARRAGANSETT ELECTRIC COMPANY
STANDARD OFFER ADJUSTMENT PROVISION**

including interest at the interest rate paid on customer deposits, shall be refunded to, or collected from, Standard Offer Service Customers in the subsequent year's Standard Offer Service Administrative Cost Factor. The Company may file to change the Standard Offer Service Administrative Cost Factor at any time should significant over- or under- recoveries of Standard Offer Service administrative costs occur.

For purposes of calculating the Standard Offer Service Administrative Cost Factor, which is applicable to customers receiving Standard Offer Service, administrative costs associated with arranging Standard Offer Service pursuant to this provision shall include:

1. the cost of working capital;
2. the administrative costs of complying with the requirements of Renewable Energy Standard established in R.I.G.L. Section 39-26-1, the costs of creating the environmental disclosure label, and the costs associated with NEPOOL's Generation Information System attributable to Standard Offer Service load;
3. the costs associated with the procurement of Standard Offer Service including requests for bids, contract negotiation, and execution and contract administration;
4. the costs associated with notifying Standard Offer Service customers of the rates for Standard Offer Service and the costs associated with updating rate change in the Company's billing system; and
5. the uncollectible costs associated with the amounts the Company bills for Standard Offer Service supply.

Standard Offer Service Administrative Cost Factors:

Small Customer (Rates A-16, A-60, C-06, S-06, S-10 and S-14)	0.215¢ per kWh
Large Customer (Rates G-02, G-32, B-32, X-01)	0.078¢ per kWh

This provision is applicable to all Retail Delivery Service rates of the Company.

Effective: July 1, 2009

Schedule NG-RLW-4

**Adjustment to Revenue Requirement for
the Company's Mitigation Plan**

**National Grid - Narragansett Electric
Credit and Collection Expense
Computation of Incremental Rate Year Credit and Collection Expenses**

	(A)	(B)	(C) (B - A)	(D)
	Jan-Mar 2008	Jan-Mar 2009	Narragansett Incremental	
<u>Incremental Field Visits Jan -Mar 2009 vs. Jan - Mar 2008</u>				
Actual Number of Field Collection Visits				
1 January - Narragansett Electric Co	0 (i)	759	759	
2 February - Narragansett Electric Co	0 (i)	487	487	
3 March - Narragansett Electric Co	0 (i)	636	636	
4 Incremental Field Visits Jan -Mar 2009 vs. Jan - Mar 2008				1,882 Sum 1-3
5 Average Inbound calls generated per field collection visit			2.5	
6 Incremental Inbound calls due to increased field visit activity				4,705 4 x 5
7 Cost per inbound call			\$4.00	
8 Incremental cost of inbound calls due to increased field collection visits				\$18,820 6 x 7
(i) All visits Jan 2009 - Mar 2009 are incremental. Zero visits for Jan 2008 - Mar 2008 due to the CSS conversion.				
9 Cost of Incremental Outbound Calling Activity in Rate Year				\$153,186 pg 2 total
10 Cost of Incremental Inbound calls due to Increased Outbound Call activity in Rate Yea				\$204,249 pg 3 total
11 Total Incremental Credit and Collection costs in Rate Year				\$376,255 8 + 9 + 10

**National Grid - Narragansett Electric
Credit and Collection Expense
Computation of Incremental Rate Year Credit and Collection Expenses**

	(A)	(B)	(C) (A + B)	(D)	(E)	(F) (D + E)	(G) (D - A)	(H) (E - B)	(I) (G + H)	(J)
	Reminder 2008	Disconnect 2008	Total 2008	Reminder 2009	Disconnect 2009	Total 2009	Narragansett Reminder 2008	Disconnect 2009	Incremental Activity	
Incremental Outbound Call Activity Jan - Mar 2009 vs. Jan - Mar 2008										
Out Bound Calling activity										
1	January - Narragansett Electric Co	0	0	0 (i)	59,656	95,696	36,040	59,656	95,696	
2	February - Narragansett Electric Co	0	0	0 (i)	55,146	88,066	32,920	55,146	88,066	
3	March - Narragansett Electric Co	0	0	0 (i)	57,828	100,762	42,934	57,828	100,762	
4	Incremental Outbound calls Jan - Mar 2009 vs Jan - Mar 2008									284,524 Sum 1-3
5	Vendor cost per outbound call								\$0.30	
6	Incremental Cost for Outbound Call Activity Jan - Mar 2009 vs Jan - Mar 2008								\$85,357 4 x 5	
Incremental Outbound Call Activity Apr - Dec 2008 vs. Apr - Dec 2007										
Out Bound Calling activity										
7	April - December - Narragansett Electric Co	40,302	26,614	66,916	134,620	158,394	94,318	131,780	226,098	
8	Vendor cost per outbound call								\$0.30	
9	Incremental Cost for Outbound Call Activity Apr - Dec 2008 vs Apr - Dec 2007									\$67,829 7 x 8
10	Total Rate Year Cost of Incremental Outbound Calling Activity									\$153,186 6 + 9

(i) All outbound calls Jan 2009 - Mar 2009 are incremental. Zero calls for Jan 2008 - Mar 2008 due to the CSS conversion.

**National Grid - Narragansett Electric
Credit and Collection Expense
Computation of Incremental Rate Year Credit and Collection Expenses**

	(A)	(B)	(C) (A + B)	(D)	(E)	(F) (D + E)	(G) (D - A)	(H) (E - B)	(I) (G + H)	(J)
	Inbound Call Activity			Inbound Call Activity			Narragansett Incremental Inbound Call Activity			
	Reminder 2008	Disconnect 2008	Total 2008	Reminder 2009	Disconnect 2009	Total 2009	Reminder 2008	Disconnect 2009	Incremental Mass Activity	
	10.00% (i)	10.00% (i)		10.00% (i)	10.00% (i)					

(i) Outbound calls result in a number of inbound calls at about a 10% rate. The levels of inbound call activity on this page are 10% of the outbound call activity on page 2.