

**BEFORE THE  
STATE OF RHODE ISLAND  
PUBLIC UTILITIES COMMISSION**

**IN RE: REVIEW OF THE )  
NARRAGANSETT ELECTRIC COMPANY )  
D/B/A NATIONAL GRID – REVIEW OF )  
ELECTRIC DISTRIBUTION DESIGN )  
PURSUANT TO R.I. GEN. LAW §39-26.6-24 )**

**DOCKET NO. 4568**

**SURREBUTTAL TESTIMONY  
OF  
SCUDDER H. PARKER**

**SUBMITTED ON BEHALF OF  
THE RHODE ISLAND  
ENERGY EFFICIENCY AND RESOURCE MANAGEMENT COUNCIL**

**JANUARY 6, 2016**

1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **Q. Please state your name and business address.**

3 A. I am Scudder Parker. My business address is: Vermont Energy Investment  
4 Corporation, 128 Lakeside Avenue, Suite 401, Burlington, VT 05401.

5 **Q. On whose behalf are you testifying?**

6 A. I am testifying on behalf of the Rhode Island Energy Efficiency &  
7 Resource Management Council.

8 **Q. Have you previously submitted testimony in this proceeding?**

9 A. I have.

10 **Q: What is the purpose of your Surrebuttal Testimony in this proceeding?**

11 A: The purpose of my Surrebuttal Testimony is to respond to Rebuttal  
12 Testimony presented jointly by Peter T. Zschokke, Jeanne A. Lloyd, and Timothy  
13 R. Roughan on behalf of National Grid in Docket 4568.

14 **Q: Are you aware of other parties who may be submitting testimony addressing  
15 some of same topics you will address?**

16 A: I am. In the interest of efficiency and clarity, I will attempt to reference the  
17 testimony of other witnesses where it expresses the same points I would have  
18 made, and thus avoid repeating it.

19

20 **Q: Please outline your testimony.**

21 A: My Surrebuttal Testimony makes the following points:

22 1. National Grid's Rebuttal Testimony, specifically intended to counter points I  
23 and other parties made in our Direct Testimony is not persuasive when  
24 considered in the context of the regulatory requirements that guide National  
25 Grid's operations in Rhode Island. National Grid both misinterprets and seeks  
26 to elevate the direction provided in Section 24 of the Renewable Energy  
27 Growth (REG) Act, R.I.G.L. §39-26.6-24 (hereinafter, the "Act"), to a status  
28 that gives it more importance than other clear legislative guidance already in  
29 place.

- 1           2. National Grid argues that (A) the distributed generation (DG) industry  
2           provides little to no actual and quantifiable benefits to the utility and its  
3           customers and (B) since there are costs and the DG customer benefits are real,  
4           there is a need for prompt adoption of the new rate design and access fee, to  
5           prevent cross-subsidization from non-DG customers. This argument begs the  
6           question: “What would it take to determine and secure these benefits?”
- 7           3. National Grid repeatedly asserts that the unavailability of sophisticated  
8           metering and management tools makes it difficult to accurately assess the  
9           benefits of distributed generation, and makes it impossible to design effective  
10          load management approaches. And therefore, National Grid concludes its  
11          tiered rate design should be adopted as proposed. National Grid argues that  
12          the cost of acquiring such assessment capabilities would mean any proposed  
13          solution that includes new investment in assessment and management tools  
14          would render the solution non-revenue-neutral. This argument is circular and  
15          short-sighted.
- 16          4. National Grid mistakenly asserts that only the potential distribution system  
17          benefits of DG are relevant to the issues under consideration in this Docket  
18          (Rebuttal, p.33, lines. 12-13). It also insists that distribution costs should all  
19          be treated as “fixed costs,” while ignoring the possibility that such an  
20          approach could lead to increased and potentially unnecessary distribution  
21          system investments, in the place of more productive alternative investments.
- 22          5. It would be a significant error to allow National Grid to impose a rate design  
23          that will not support, will not advance, and will actually *inhibit* innovation in  
24          the evolution of the energy system it operates as a monopoly provider, simply  
25          because is not prepared to propose a strategy that would move it to a more  
26          forward-looking approach.

27   **II. NATIONAL GRID’S SPECIFIC REBUTTAL COMMENTS ARE NOT**  
28   **PERSUASIVE.**

29

30   **Q    On page 9 of its Rebuttal Testimony, National Grid asserts that you and**  
31   **other parties believe that Section 24 “...should be implemented in the context**

1 **of a larger stakeholder process to develop not only a rate proposal, but a**  
2 **proposal to modernize the distribution system as well...” Is this correct?**

3 A: It is not. My basic point, (and the point made by others) was that the PUC  
4 should not approve this rate design, because it is more important for the PUC to  
5 address the larger policy issues and opportunities in Rhode Island than to rush  
6 adoption of a proposal that offers no consideration of rapidly changing energy  
7 supply and delivery markets and emerging customer-side resources.

8 **Q: On pages 39 and 40, National Grid asserts that your (and other parties’)**  
9 **claims about the complexity of the tiered rate design are not substantive and**  
10 **that in any case a time varying rate would be even more complex. Is this**  
11 **assertion accurate?**

12 A: No, it is not. National Grid asserts that introducing a tiered, fixed distribution  
13 charge, with a 12-month ratchet for residential and small commercial customers  
14 will not be difficult for them to understand. This assertion substantially  
15 underestimates the impact of introducing these rate structures, and appears not to  
16 consider the difficulty of effectively communicating these changes to customers.  
17 National Grid provides no clear estimate of costs for informing and  
18 communicating this tiered, fixed charge—a new rate structure—to customers.  
19 Communications to customers normally involve several steps and methods for  
20 introducing customers to new rate practices, and each of these steps carries a cost.

21 National Grid also asserts that time-varying rates will be more complex to  
22 communicate and implement than their tiered proposal. An appropriate time-  
23 varying rate will indeed require careful planning, introduction, and customer  
24 information and support—none of which is evidenced in this proposal. But a  
25 time-varying rate will also provide much better accuracy in cost allocation and  
26 much better guidance for customers about what they can do to lower costs and  
27 provide benefits for themselves and for the utility system. In other words, the  
28 proposed change in this event, would be accompanied by specific action  
29 customers can take.

1 **Q: On Page 42, National Grid discusses your comment that the proposed tiered**  
2 **rate structure could result in sudden increases in customer energy use that**  
3 **will cause customer confusion. How do you respond?**

4 A: Basically, National Grid says, “Well, customers deserve that consequence.”  
5 My point was that a sudden, one-time, and likely non-coincident increase in  
6 energy use will have a year-long impact on these customers. This structure  
7 penalizes customers, but it does benefit National Grid, which is not likely to incur  
8 new distribution system costs from a one-time increase. The response by National  
9 Grid glosses over the likely negative customer impacts and resulting customer  
10 reactions.

11 **Q: On Page 45, National Grid addresses the comment that you and other**  
12 **witnesses made about a tiered distribution charge not encouraging customers**  
13 **to consume less during peak demand periods. What is your response?**

14 A: As it often does in this Docket, National Grid states this will be impossible  
15 without “...a significant investment in metering technology and the transition to a  
16 more complicated rate structure and design.” (Rebuttal, p. 45, lines, 6-8) This  
17 statement does not refute the point made by me and others about the likelihood  
18 that a tiered structure would not effectively encourage customers to use less  
19 during peak periods. Further, the statement does not offer any persuasive  
20 argument for the proposed rate design.

21 **III. NATIONAL GRID BOTH MISINTERPRETS AND OVER-EMPHASIZES**  
22 **THE IMPORTANCE OF SECTION 24 OF THE RENEWABLE ENERGY**  
23 **GROWTH ACT.**

24 **Q: National Grid states on p. 13, lines 8-11 “The Act establishes a clear and**  
25 **specific timeframe for the implementation of new rates. The intervenors’**  
26 **belief that there is no urgency runs counter to the statutory requirement. By**  
27 **including Section 24 in the Act, the legislature has expressed its intent for the**

1           **PUC to implement new rates in early 2016 that are fair to all customers.”<sup>1</sup>**

2           **Do you agree with this interpretation of Section 24?**

3           A:           I do not. This is an issue that was addressed by most replying parties in their  
4           Direct Testimony, and now needs to be addressed again in Surrebuttal Testimony.  
5           There is no requirement in Section 24 that the PUC actually adopt the rate design  
6           that National Grid is required to propose in this proceeding—or even a version of  
7           it. Other parties submitting Surrebuttal Testimony (principally Marion Gold and  
8           Janet Besser) provide important additional detail about the history of Section 24,  
9           the context in which it originated, and valid interpretations of it.

10          **Q:        What is the effect of National Grid’s insistence on the urgency of adopting a**  
11          **new rate design?**

12          A:           National Grid seeks to elevate the direction provided in Section 24 of the  
13          REG act to a status that gives that direction greater importance and more urgent  
14          effect than other clear legislative guidance already in place. It is this pre-existing  
15          law that should inform National Grid’s approach to renewable energy integration  
16          and the provision of demand response services.

17          **Q:        Please explain.**

18          A:           In my Direct Testimony, pages 23-26, I discussed both the language guiding  
19          the PUC’s action in considering “...any new rates the commission may deem  
20          appropriate” (R.I.G.L. §39-26.6-24(b)) and its relationship to other legislation,  
21          including the 2006 Least Cost Procurement and System Reliability Act. I also  
22          discussed the Renewable Energy Growth legislation itself.

23                   The implementation of the REG legislation should be considered in the  
24          context of the utility’s existing mandates that include System Reliability  
25          Procurement and Least–cost Procurement. These requirements refer specifically  
26          to incorporating renewable energy and demand response. National Grid to date  
27          has done an impressive job of implementing energy efficiency procurement. But  
28          it has not advanced far with regard to either incorporating renewable energy or

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<sup>1</sup> See also Rebuttal, page 9, lines 15-18.

1 fulfilling the mandate to address demand response and least-cost procurement  
2 “when such measures are lower cost than acquisition of additional supply,  
3 *including supply for periods of high demand.*” (R.I.G.L. §39-1-27.7(a)(2),  
4 emphasis added).

5 **Q: Are you saying that National Grid has not fully complied with the Least Cost**  
6 **Procurement legislation?**

7 A: Compliance with least-cost procurement policy is an ongoing obligation.  
8 The point of my comment is not to lay blame on National Grid, but rather to  
9 emphasize that there is more for all parties in Rhode Island (including National  
10 Grid) to do. As I have already stated above, National Grid has impressively  
11 implemented least-cost procurement through energy efficiency investment. It has,  
12 in the Tiverton / Little Compton System Reliability Pilot, begun to investigate  
13 strategies for, and the potential benefits of, non-wires alternatives to more  
14 traditional “poles and wires” distribution system investment to address capacity  
15 constraints. Although the path to securing nation-leading levels of energy  
16 efficiency has not been easy, National Grid has drawn on and built upon good  
17 work in other jurisdictions (some of them also owned by National Grid).

18 The challenges of running effective demand response programs and of  
19 integrating high levels of distributed generation and other customer-side resources  
20 are significant. Much more progress needs to be made, and the path forward is not  
21 clearly charted. The Collaborative Parties in Rhode Island, led by the Office of  
22 Energy Resources, the Energy Efficiency and Resource Management Council,  
23 National Grid, and other key stakeholders, are beginning to make progress in  
24 addressing these important and complex opportunities.

25 I believe this proceeding offers Rhode Island a chance to recognize the  
26 importance of advancing that work. Such progress will involve delivering  
27 distribution service that engages customers and markets in new ways.

28 **Q: Is there guidance other than what you have already cited in Rhode Island’s**  
29 **legislation that further clarifies the importance of an integrated approach to**  
30 **Least Cost Procurement and System Reliability Procurement?**

1 A: There is. R.I.G.L. §39-1-27.7(c) requires the following:

2 (4) Each electrical and natural gas distribution company shall submit to the  
3 commission on or before September 1, 2008, and triennially on or before  
4 September 1, thereafter through September 1, 2024, a plan for system reliability  
5 and energy efficiency and conservation procurement. In developing the plan, the  
6 distribution company may seek the advice of the commissioner and the council.  
7 *The plan shall include measurable goals and target percentages for each energy*  
8 *resource, pursuant to standards established by the commission, including*  
9 *efficiency, distributed generation, demand response, combined heat and power,*  
10 *and renewables.* (Emphasis added)

11 It is important to note that here, in a section of the law that has so far been  
12 interpreted to guide primarily least cost procurement of energy efficiency  
13 resources, there is (*and has been*) instruction to develop the Three-Year Energy  
14 Procurement Plan, with specific targets for demand response and the integration  
15 of renewables.

16 **Q: Is there another place in Rhode Island law where this mandate is referenced?**

17 A: There is. It is specifically referenced in the “Purposes” section of Rhode  
18 Island’s decoupling statute, subdivision (2), cited below:

19 R.I.G.L. §39-1-27.7.1 - Revenue decoupling (a) The general assembly finds  
20 and declares that electricity and gas revenues shall be fully decoupled from sales  
21 pursuant to the provisions of this chapter and further finds and declares that any  
22 decoupling proposal submitted by an electric distribution company as defined in  
23 subdivision 39-1-2(12) or gas distribution company included as a public utility  
24 in subdivision 39-1-2(20) that has greater than one hundred thousand (100,000)  
25 customers, *shall be for the following purposes:* (emphasis added)

26 (1) Increasing efficiency in the operations and management of the electric and  
27 gas distribution system;

28 (2) *Achieving the goals established in the electric distribution company's plan*  
29 *for system reliability and energy efficiency and conservation procurement as*  
30 *required pursuant to subsection 39-1-27.7(c)* (emphasis added);

31 (3) Increasing investment in least-cost resources that will reduce long-term  
32 electricity demand;

33 (4) Reducing risks for both customers and the distribution company including,  
34 but not limited to, societal risks, weather risks and economic risks;

- 1 (5) Increasing investment in end-use energy efficiency;
- 2 (6) Eliminating disincentives to support energy efficiency programs;
- 3 (7) Facilitating and encouraging investment in utility infrastructure, safety, and  
4 reliability; and
- 5 (8) *Considering the reduction of fixed, recurring customer charges and*  
6 *transition to increased unit charges that more accurately reflect the long-term*  
7 *costs of energy production and delivery.* (emphasis added)

8 The statute is explicit about the fact that a fundamental objective of Rhode  
9 Island’s decoupling statute is to support *least-cost procurement* and *system*  
10 *reliability planning* in their broadest definitions.

11 It is invalid for National Grid to argue directly or indirectly that Section 24  
12 of the Act is meant to supersede this longstanding and well-established  
13 requirement of Rhode Island law. And yet, National Grid’s insistence on the  
14 urgent need to adopt its rate design proposal effectively makes that argument.

15 **Q: Is there anything else in the section of the law that you have cited that bears**  
16 **on this proceeding?**

17 A: There is. I believe that R.I.G.L. §39-1-27.7.1(8), cited above, explicitly  
18 provides guidance as to one other purpose of the decoupling statute—and that is a  
19 preference for how rates are to be designed in the long run. This preference is  
20 supported in the policy direction of moving toward “...*the reduction of fixed,*  
21 *recurring customer charges and transition to increased unit charges that more*  
22 *accurately reflect the long-term costs of energy production and delivery.*” Such a  
23 provision certainly argues against a hasty adoption of an *increase* in fixed  
24 customer distribution charges, as both an immediate step and (as is clear in  
25 National Grid’s testimony) a long-term direction proposed by National Grid. This  
26 subsection also suggests it is appropriate (and might even be advisable) to rely on  
27 the decoupling mechanism at least for an interim period, to enable a transition to a  
28 rate structure that embeds in unit charges the long-term cost of energy production  
29 and delivery.

1           This proceeding has provided and continues to offer the opportunity for all  
2 parties and the PUC to understand better two key features of energy delivery in  
3 Rhode Island: (1) the current forces and opportunities at work in the electric  
4 utility sector, and (2) the deeply embedded assumptions in the current utility  
5 structure that continue to divert National Grid from making significant progress in  
6 incorporating renewable energy and appropriate demand management.

7           I urge the Commission to recognize this dual opportunity as a beneficial  
8 outcome of this Docket. It is a positive and appropriate step for all parties to learn  
9 from the process mandated in Section 24 of the Act. And I believe that National  
10 Grid has rightly identified some of the challenges to making further progress in  
11 securing these valuable components of system reliability and least-cost  
12 procurement planning—that is, the absence of sophisticated metering and  
13 management systems that would enable real advances.

14           What is troubling is that National Grid concurrently insists on adopting  
15 what appears to be an off-the-shelf rate design because the alternative, preferred  
16 system is not yet feasible or operational (and as National Grid also argues,  
17 desirable). A new approach to planning, investment, information-sharing, and  
18 innovation must drive a new infrastructure that will more accurately identify costs  
19 and benefits, convey them to customers, and secure greater benefits both for  
20 customers and the system. This is what we are learning from Docket 4568. To  
21 leap over that insight, and to adopt a flawed rate design would, I believe, miss the  
22 intended outcome of Section 24 of the Act, and postpone and restrict the intended  
23 delivery of customer and system benefits from that law.

24 **IV: NATIONAL GRID ARGUES THAT THE CURRENT IDENTIFIABLE**  
25 **VALUE OF DISTRIBUTED GENERATION IS NEAR ZERO.**

26 **Q: National Grid states that “Currently the DG industry provides little to no**  
27 **actual and quantifiable benefits to the utility and other customers” (Rebuttal,**  
28 **p. 26, Ll.12-13). What is your response?**

29 **A:**           Although it might be difficult for National Grid to demonstrate fully and  
30 accurately the benefits of distributed generation on the system, I find this

1 statement to reflect a lack of commitment to understanding and incorporating  
2 those benefits. This is unfortunate. As other parties discuss in their Surrebuttal  
3 filings, there are long-term values and specific situations in which distributed  
4 generation can offer immediate value to an energy system, and National Grid is,  
5 in some instances, even participating in assessing them. Other parties will address  
6 this assertion and many related arguments in more detail. I will repeat here what I  
7 have stated in my direct testimony, that least cost procurement and system  
8 reliability planning is specifically anticipated to have an effect on how National  
9 Grid plans for and acquires its supply portfolio. (Parker Direct, p. 25, Lines 12-  
10 19)

11 **Q: Aside from disagreement with this statement, does it reflect an approach on**  
12 **National Grid's part that is of concern?**

13 A: It does. National Grid's repeated assertions about the absence of a  
14 sophisticated metering and management infrastructure fall into two categories of  
15 conclusion. The first is the argument that the lack of improved metering and  
16 management infrastructure makes a time-varying rate structure impossible. The  
17 second category of argument is that the lack of this improved infrastructure makes  
18 a full assessment of the benefits offered by distributed generation impossible. But  
19 there is a third conclusion—and it is more compelling than either of the other  
20 two—that is not stated. The fact is that this new infrastructure could make the  
21 actual *securing of new system benefits to National Grid, from customers, possible.*  
22 *This would also benefit customers themselves.*

23 Sophisticated metering and active grid management will not just acquire  
24 information about the costs customers and generators impose on the system, and  
25 benefits they provide to it. New metering and management practices will actually  
26 open a world of opportunity for National Grid to help customers *and* renewable  
27 energy generators to become well-engaged contributors to the reliability,  
28 sustainability, and diversification of the grid. This will happen in large part by  
29 providing clear and accurate information about the time-differentiated costs of  
30 energy use and other services National Grid can provide. It will also happen by

1 identifying value for services that all customers (generators or not) can, in turn,  
2 provide to the system.

3 National Grid’s passive approach to its future, as displayed in its  
4 testimony throughout this Docket, leads it to treat these opportunities for learning  
5 and improved customer empowerment and participation as possible benefits in a  
6 remote future, rather than as exciting possibilities in the near term and medium  
7 term—for which it has a plan to reach.

8

9 **V: NATIONAL GRID’S REPEATED USE OF THE ARGUMENT THAT**  
10 **SOPHISTICATED METERING STRUCTURE IS NOT AVAILABLE**  
11 **ACTUALLY HELPS SUPPORT AN INCREASINGLY CIRCULAR**  
12 **ARGUMENT.**

13 **Q: What do you think is the effect of what you are describing as National Grid’s**  
14 **“passive approach to the future” that it also sometimes appears to embrace?**

15 **A:** Taken as a whole, National Grid’s reasoning is circular and self-reinforcing. I  
16 offer the following lines of argument contained in National Grid’s testimony to  
17 illustrate what appears to be the logic structure of National Grid’s case:

- 18 1) We don’t have the metering infrastructure that would enable us to  
19 accurately allocate costs and maximize the benefits of customer  
20 energy use patterns and distributed generation.
- 21 2) If we did, we could learn a lot more about those costs and benefits,  
22 and might be able to design rates accordingly, and actually maximize  
23 benefits.
- 24 3) But it will require a significant new investment for which we have not  
25 planned, and it will require a lot of time to go through those planning  
26 and implementation processes
- 27 4) We were required to submit a revenue-neutral rate design in a very  
28 restricted period of time.
- 29 5) That constraint alone prohibits us from addressing the possibility of a  
30 more comprehensive approach in this proceeding.

- 1           6)       Therefore, the PUC should adopt our proposals (even though others  
2                    have argued that they are imprecise and offer potentially harmful rate  
3                    and access fee designs).
- 4           7)       This conclusion is warranted because adopting the proposed designs  
5                    at least ensures that non-DG customers contribute to distribution  
6                    system fixed costs. This is the best we can do.
- 7           8)       We should do this right now, because Section 24 tells us to, even  
8                    though the distribution system cross-subsidies are small now and are  
9                    not projected to increase dramatically in the next few years, and the  
10                  decoupling mechanism holds National Grid harmless from revenue  
11                  erosion that might otherwise take place.
- 12          9)       Even though this action might impose non-cost-based expenses on  
13                    consumers and generators, this is the best we can do because we don't  
14                    have sufficient information to do any better.
- 15          10)      Our proposals (imperfect as they might be) should be put in place and  
16                    should carry forward into the future even if a new more sophisticated  
17                    system is implemented.

18                    I do not find the logic of this reasoning persuasive in light of current  
19                    dynamics in the markets, and in light of the requirements of Rhode Island  
20                    legislation. Once the new rate design is in place, the urgency to act aggressively  
21                    on creating a new, intelligent system will be diminished.

22   **VI: NATIONAL GRID ASSERTS THAT ONLY DISTRIBUTION BENEFITS**  
23   **FROM DISTRIBUTED GENERATION SHOULD BE CONSIDERED IN**  
24   **THIS DOCKET, AND THAT TIME-VARYING RATES WOULD NOT BE**  
25   **APPROPRIATE FOR DESIGNING DISTRIBUTION RATES.**

26   **Q: What approach does National Grid take to the issue of designing distribution**  
27   **rates?**

28   A:       National Grid is clear that it believes its proposal for fixed customer charges  
29            (whether tiered or not) is its preferred approach to distribution rate design. This

1 position is most exhaustively described in the response to Division 1-9 (on Direct  
2 Testimony). On page 2 of that response National Grid states:

3 *The costs of installing and maintaining the distribution system are*  
4 *predominantly fixed costs (e.g., the cost of metering and installing*  
5 *distribution feeders, substations and line drops, property taxes, return on*  
6 *equity, etc.) The rates for distribution service should therefore reflect the*  
7 *cost causative nature of the service and be sustainable over an extended*  
8 *period. Recovering fixed costs through volumetric charges results in*  
9 *overstated volumetric charges, subjecting a disproportionate amount of a*  
10 *customer's bill to month-to-month fluctuations due to a customer's*  
11 *variation in usage, and as a result creates bills that are more variable and*  
12 *unpredictable.* (Division 1-9, page 2, third paragraph; emphasis added)  
13

14 This advocacy for treating distribution costs through a fixed charge is  
15 reflected in National Grid's advocacy for strict separation of considering  
16 distribution system benefits from considering actual commodity benefits  
17 (Rebuttal, p. 24, Lines 11-13), and its argument that "...only the potential costs  
18 and benefits affecting the distribution system are relevant to the proposals in this  
19 docket" (Rebuttal, p. 33, lines12-13).

20 First, it is not clear how applicable this approach is to the customers with  
21 much smaller loads in Rate Classes Residential A-16 and small Commercial and  
22 Industrial (C&I) Rate C-60. And second, it seriously over-emphasizes the  
23 importance and impact of rate design for customers with relatively low use, on  
24 what will constitute about a quarter of their average bill.

25 **Q: Does National Grid's approach to distribution system rate design, as**  
26 **reflected in its Rebuttal Testimony, agree with that proposed by Lazar and**  
27 **Gonzales in the exhibit you provided in your Direct Testimony?**

28 A: It does not. In their discussion of distribution costs, Lazar and Gonzales  
29 (Document included as an exhibit in my Direct Testimony) emphasize that it  
30 might not be appropriate in the long run to treat distribution costs as fixed:

31 The basic distribution infrastructure—poles, wires and transformers, plus  
32 associated maintenance costs—comprises approximately one-quarter of the  
33 revenue requirement for the typical electric utility. Although many utilities  
34 view these as "fixed costs" in the long run all costs are variable. Customer  
35 usage levels may change dramatically over time and there may be operational  
36 alternatives increasingly available such as on-site generation and storage.

1 With the experienced and anticipated reduction in cost for these alternatives,  
2 the likelihood of their deployment and use will only increase, making  
3 possible the deferral or avoidance of distribution infrastructure investment.  
4 At the same time, as customer usage grows within any portion of the  
5 distribution system, upgrades and expansions will be required, resulting in  
6 greater capital and operating costs. Accordingly, it is important to recover  
7 distribution costs on the basis of the end-use consumption and, only where  
8 DG penetration is very high, consider specific additional investment in  
9 distribution facilities. (Smart Rate Design for a Smart Future, p. 37).  
10

11 This concept that some investments that have been considered “fixed costs”  
12 may actually be variable long-term costs suggests that among other things, there  
13 may be a growing risk of “over-building” the distribution system. Full discussion  
14 of that shift in approach will require thoughtful discussion that needs to take place  
15 beyond this docket. But the opportunity to have that discussion does suggest that  
16 caution in treating all distribution system costs as “fixed” is appropriate, and  
17 locking in a rate design based on the assumption that they are, is not appropriate  
18 at this time. This issue is important to consider in this context because the new  
19 “sophisticated metering and data management system” that is much-referenced by  
20 National Grid could very likely also be treated as a “distribution system cost.”  
21 The possibility that these investments might have an effect on the other more  
22 traditional investments should be at least an open question.

23  
24 **Q: Why do you think National Grid takes the approach it does to distribution**  
25 **system rate design?**

26 A: I believe that National Grid is in this Docket thinking “reactively” about  
27 the design of the distribution system. This impression of mine leads me to think  
28 they are expecting to build a system that, over time, continues to be shaped by  
29 imposed emerging development patterns, usage patterns, and new technologies  
30 (included distributed generation) (combined with their obligation to serve). It is  
31 not at all unreasonable for them to think this way about the system they have built  
32 and maintained. In this way of thinking, the separation between distribution  
33 benefits and costs of distribution makes some sense.

1 **Q: Do you think this is the way the distribution system will grow, going**  
2 **forward?**

3 A: There will not be an overnight change, but change is coming. With the  
4 combination of clear policy objectives that Rhode Island already has in place, the  
5 evolution and increasing adoption of new technologies with more sophisticated  
6 capabilities, and the need to give customers and markets clear price signals, I do  
7 believe that the electric grid can and should evolve into something that is dynamic  
8 and interactive. I also believe this dynamic and interactive grid can play an  
9 important part in helping Rhode Island meet its energy needs in a manner that is  
10 affordable, sustainable, and reliable.

11 **VII. APPROVING THE PROPOSED RATE DESIGN AND ACCESS FEE**  
12 **WILL NOT ADVANCE THE POLICY OBJECTIVES ARTICULATED IN**  
13 **RHODE ISLAND LAW AND IT SHOULD BE REJECTED.**

14 **Q: What do you recommend?**

15 A: National Grid's approach in this Docket is to seek a predictability of  
16 revenue through its proposed rate design. This predictability is aligned with the  
17 traditional and familiar way it has (competently) provided electric service. At a  
18 time of significant change, however, the Company needs to commit to providing  
19 clearer, more "real-time" price signals to customers and markets. These signals  
20 will actually support the emerging and rapidly evolving distribution system of the  
21 future, providing a new level of service and benefits to customers, the economy  
22 and the environment.

23 **Q: Does this conclude your testimony?**

24 A: It does.