

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
PUBLIC UTILITIES COMMISSION

IN RE: THE NARRAGANSETT ELECTRIC COMPANY :  
d/b/a NATIONAL GRID – ELECTRIC AND GAS : DOCKET NO. 4770  
DISTRIBUTION RATE FILING :

COMMISSION’S NINTH SET OF DATA REQUESTS  
DIRECTED TO NATIONAL GRID  
(Issued May 4, 2018)

Low Income

- 9-1. PUC-8-4(d) should have read: Please provide any analysis performed by the Company regarding the impact of Judge Vogel’s orders on receivables.

**Response can be found in Book 1 part 1 on Bates page(s) 1 through Book 1 part 10 on Bates page(s) 277.**

- 9-2. Is the cost of the A-60 customer discount currently allocated to all customers? If not, to who are they allocated? Please identify the appropriate schedule(s).

**Response can be found in Book 2 on Bates page(s) 1-3.**

- 9-3. Are the costs of the low income discounted rate on gas currently allocated to all customers? If not, to whom are they allocated? Please identify the appropriate schedule(s).

**Response can be found in Book 2 on Bates page(s) 4-10.**

- 9-4. Please clarify the Company’s proposal for the recovery of costs related to the proposed low-income discounts for electric and gas. Please identify the appropriate schedule(s).

**Response can be found in Book 2 on Bates page(s) 11-12.**

- 9-5. The Company has proposed to phase-in the customer charge on the A-60 rate. Please explain how the annual increases to the A-60 customers would be credited to the other applicable customer class(es).

**Response can be found in Book 2 on Bates page(s) 13.**

- 9-6. If the A-60 rate were designed such that there were still no customer charge and the remaining charges were discounted by 15%, what would be the cost of the discount under the same set of assumptions in the Company proposal compared to the costs included in the Company’s proposal? Please include the costs separated by rate year and phase-in years.

**Response can be found in Book 2 on Bates page(s) 14-17.**

- 9-7. How, if at all, does the proposed flat discount affect A-60 net metering customers? Please provide an example of a low-income net metering bill under the current rate structure and the proposed 15% flat discount.

**Response can be found in Book 2 on Bates page(s) 18-23.**

- 9-8. Please explain how income eligible customers are identified in Massachusetts.
- If one of the means by which income eligible customers are identified is through a data sharing agreement with the Department of Transitional Assistance, please explain how it works, how it was implemented, the costs to implement, any ongoing costs, and the percentage of eligible income customers identified by this mechanism.
  - Does the Company currently engage with any of the Rhode Island governmental agencies to identify income-eligible customers?
  - Does the Company receive enrollment applications from CAP Agencies in Rhode Island?

**Response can be found in Book 2 on Bates page(s) 24-26.**

#### Allocated Cost of Service Study/Rate Design

- 9-9. Referencing Mr. Athos' supplemental testimony, page 4, he sets forth the changes that have been made to the allocated cost of service study (ACOSS) methodology since the 2012 study. On page 8 of Mr. Athos' testimony and page 12 of his supplemental testimony, he notes the increased costs allocated to residential customers based on number of bills in the "secondary system." In both places he states, "this secondary system cost increase comes in Service Drop-related accounts. This suggests that an increase in monthly fixed charges would be consistent with cost causation principles of a cost of service study."
- Has National Grid made any other changes to the methodology since the 2012 ACOSS?
  - What has led to the increase in the secondary system costs allocated to residential customers?
  - If so, please identify them and explain why they are reasonable, specifically addressing any demand related costs that may have been allocated differently in the 2017 ACOSS.

**Response can be found in Book 2 on Bates page(s) 27.**

- 9-10. Did National Grid do any analysis of the impact on gas heating customers resulting from its proposal to eliminate the tail block pricing structure? If so, what were the results? If not, why not?

**Response can be found in Book 2 on Bates page(s) 28-33.**

- 9-11. Did National Grid do any analysis of the impact on low-income gas heating customers resulting from its proposal to eliminate the tail block pricing structure? If so, what were the results? If not, why not?

**Response can be found in Book 2 on Bates page(s) 34.**

- 9-12. Please quantify or explain how the increase in the customer charge by the various rate classes per month on the electric bill will affect the Company's ability to achieve its energy efficiency goals.
- How will the change effect the payback period for energy efficiency investments?
  - If the change will decrease investment in energy efficiency relative to no change, what is the decrease in net benefits, and what is the value of distribution investments that will be necessary due to this decrease in energy efficiency?

**Response can be found in Book 2 on Bates page(s) 35.**

- 9-13. Please quantify or explain how the increase in the customer charge by the various rate classes per month on the electric bill will affect the growth of net metering adoption in Rhode Island. How will the change effect the payback period for renewable energy investments?

**Response can be found in Book 2 on Bates page(s) 36.**

- 9-14. Please quantify or explain how the increase in the customer charge by the various rate classes per month on the gas bill will affect the Company's ability to achieve its energy efficiency goals.
- How will the change effect the payback period for energy efficiency investments?
  - If the change will decrease investment in energy efficiency relative to no change, what is the decrease in net benefits, and what is the value of distribution investments that will be necessary due to this decrease in energy efficiency?

**Response can be found in Book 2 on Bates page(s) 37.**

- 9-15. Does an increased customer charge affect the Company's ability to meet demand reduction goals?

**Response can be found in Book 2 on Bates page(s) 38.**

- 9-16. Does the ACOSS assume that there are different customer costs associated with residential customers living in single-family or multi-family dwellings or does it assume the costs associated with all A-16 or A-60 customers are the same for purposes of allocating costs?

**Response can be found in Book 2 on Bates page(s) 39.**

- 9-17. Has the Company performed of any analysis of whether there are any differences in the cost of connecting the average low-income customer versus other customers? If so, please identify and summarize.

**Response can be found in Book 2 on Bates page(s) 40.**

- 9-18. Has the Company performed any analysis of whether there are different costs of connecting multi-family dwellings versus single family?
- If so, please identify and summarize and indicate whether the analysis of multi-family dwellings differentiates by overall size (ex: 4 dwelling units versus 50).
  - What proportion of the company's customers live in multi-family housing?
  - Do the Company's multi-family housing customers use more or less electricity than the average residential customer?

**Response can be found in Book 2 on Bates page(s) 41.**

- 9-19 Using residential customer usage for the Test Year, how many A-16 would have higher bills, and how many would have lower bills if the proposed changes to the customers charges were in effect. Please break out the higher and lower results into at least five bins.

**Response can be found in Book 2 on Bates page(s) 42-43.**

- 9-20 Using residential customer usage for the Test Year, how many A-60 customers would have higher bills, and how many would have lower bills at the end of the phase-in of customer charges if the proposed changes to the customers charges were in effect. Please break out the higher and lower results into at least five bins.

**Response can be found in Book 2 on Bates page(s) 44-47.**

- 9-21. How many non-firm customers on the rate as of July 2009, are still non-firm customers? How often were those customers interrupted in each of the past three years?

**Response can be found in Book 2 on Bates page(s) 48.**

- 9-22. Has the Company performed any analysis of the benefits of encouraging non-firm gas supply service compared to buying more gas supply? If so, please provide. If not, why not?

**Response can be found in Book 2 on Bates page(s) 49-50.**

- 9-23. Have any G-62 customers engaged in any net metering projects? If so, please identify. If the response is in the affirmative, has the please explain how combining the G-32 and G-62 rate classes would affect the credits or value of the credits to the current G-62 customers.

**Response can be found in Book 2 on Bates page(s) 51.**

- 9-24. Regarding National Grid's response to Navy/FEA 1-2 in Docket No. 4780, please confirm that it is National Grid's opinion that none of the programs proposed in Docket 4780 will have an effect on distributed generation programs, or if something else was intended with this answer.

**Response can be found in Book 2 on Bates page(s) 52.**

Performance Incentive Mechanisms and PST

- 9-25. Niagara Mohawk agreed to a metric designed to provide an incentive for the Company to reduce the number of residential service terminations for non-payment while decreasing, or maintaining, the level of bad debt from residential accounts based on a five-year average.
- Please explain the mechanisms available in New York which would enable the Company to meet the metric.
  - Are those mechanisms available in Rhode Island?
  - What are the differences in New York regulations and Rhode Island regulations that would affect (positively or negatively) the ability of Narragansett Electric or Narragansett Gas to work toward meeting such a metric?

**Response can be found in Book 2 on Bates page(s) 53-54.**

- 9-26. Please complete the following table for the years 2012-2017, where the example below is the for year 2012 only, and provide the data in a machine-readable file. Further:
- please be sure to indicate where National Grid believes the entries are not applicable, unknown, or zero;
  - for all monetary values, please use nominal dollars;
  - for each year requested, please use the program year that overlapped the most with the calendar year, and indicate which program years were used in the response (e.g., for year 2018, use ISR FY2017;
  - for "company earnings" related to incentives, please use the (nominal dollar) value National Grid collected for the program year achievement, whether it was concurrent with or after the program year; and
  - for "company earnings" related to capital investment, please use the (nominal dollar) value of earnings included in the revenue requirement that was calculated after any applicable annual reconciliations.

**Response can be found in Book 2 on Bates page(s) 55-68.**

Table to accompany PUC-9-26

[illegible]

- 9-27. For each year in the response to 9-28, please provide the following:
- The minimum, maximum, and average Program Cost for each Outcome Category for that year;
  - The minimum, maximum, and average Company Earnings for each Outcome Category for that year.

**Response can be found in Book 2 on Bates page(s) 69-81.**

- 9-28. Please complete the table above for all programs and sub-programs proposed by National Grid in Docket 4780 that are associated with a performance incentive in Chapter 9, Section 3. For each program or subprogram, highlight (color or bold font) the metric National Grid has proposed at the metric for determining performance and related incentives. Please use the target achievement and incentive for this table.

**Response can be found in Book 2 on Bates page(s) 82-85.**

- 9-29. For all programs and sub-programs proposed by National Grid in Docket 4780 that are associated with a performance incentive in Chapter 9, Section 3, and that propose a range of achievement levels and associated incentives:
- Provide the \$/metric value for each proposed achievement level;
  - For any responses in part a that do not have a uniform \$/metric value for all achievement levels, please provide a justification for the variation.
  - For any proposed \$/metric value in part b that is above of the ranges identified in PUC 9-27.b for 2016 and 2017, please provide a justification for the value being above the range.

**Response can be found in Book 2 on Bates page(s) 86-87.**

- 9-30. What is the Company's current expectation of the cost of RGGI allowances and Renewable Energy Certificates (RECs) over the next three years?

**Response can be found in Book 2 on Bates page(s) 88.**

- 9-31. How much CO<sub>2</sub> does company expect is abated by purchase of a single RGGI allowance and REC?

**Response can be found in Book 2 on Bates page(s) 89.**

- 9-32. Is the Company's expected cost/tonCO<sub>2</sub> for RGGI allowances or RECs less than the Company's estimate of the value of a ton of CO<sub>2</sub>?

**Response can be found in Book 2 on Bates page(s) 90.**

- 9-33. Is the Company's expected cost/tonCO<sub>2</sub> for RGGI allowances or RECs less than any of the Company's expected cost/tonCO<sub>2</sub> in the Company's Electric Heat Initiative?

**Response can be found in Book 2 on Bates page(s) 91-92.**

- 9-34. Was the voluntary purchase of RECs and RGGI when the price of each is below a certain price, such as the company's benchmark for CO<sub>2</sub>, considered for meeting the Company's GHG reduction targets?

**Response can be found in Book 2 on Bates page(s) 93.**

- 9-35. Please provide the expected or target rebate, per month, that would be paid to participant in the EV Off-Peak Charging Rebate program. Please indicate which months are summer which months are winter rebate months. Please provide the number of hours participants are expected to charge their vehicles per month during on- and off-peak hours. Please reference or include supporting material, and indicate which are Rhode Island-specific data.

**Response can be found in Book 2 on Bates page(s) 94-101.**

- 9-36. In National Grid's response to Sierra Club 1-16 in Docket No. 4780, National Grid states, "As part of the EV Off-Peak Charging Rebate, the Company will evaluate the technical capability of Level 2 electric vehicle supply equipment to function as residential revenue-grade meters.
- a. In what way will this evaluation be similar to the streetlight metering pilot conducted as part of Docket No. 4513? In what ways will it be similar?
  - b. Why does National Grid believe the results of the proposed study will be different from the results of the study conducted in Docket No. 4513?

**Response can be found in Book 2 on Bates page(s) 102.**

- 9-37. Regarding the proposal to electrify portions of National Grid's fleet:
- a. Where will these vehicles be housed, recharged, and registered?
  - b. Will the vehicles be used in other jurisdictions? If so, will some of the costs of these vehicles be paid for by ratepayers in other jurisdictions?

**Response can be found in Book 2 on Bates page(s) 103.**

- 9-38. In National Grid's response to Sierra Club 1-24 in Docket No. 4780, National Grid states, "Although funding for the beneficial heat electrification will originate from both the EE and PST programs, most part of the implementation and delivery... will be undertaken by the same internal staff."
- a. How will employees understand when they are working on EE versus PST initiatives?



- b. How will these employees' time be tracked and accounted for appropriately in the different programs' administrative costs.
- c. For electric heating activities that are identical in the EE and PST programs, would National Grid's metric achievement measurement and incentive structure identical for these activities? If not, why not?

**Response can be found in Book 2 on Bates page(s) 104-105.**

- 9-39. For any PST program or subprogram described as a "pilot" or "demonstration" by the National Grid
- a. Please confirm that the primary objective of the activity is to learn.
  - b. For each activity that also would count toward a proposed incentive and is supported by capital spending, please explain why an incentive beyond the return on investment is justified.
  - c. For each activity that also would count toward a proposed incentive and is not supported by capital spending, please confirm that no existing program incentive or proposed program incentive could apply to the activity in the case that the Company's pilot or demonstration leads to a full-fledged program deployment.

**Response can be found in Book 2 on Bates page(s) 106-108.**

- 9-40. Regarding National Grid's proposed increase to the Residential customer charge:
- a. What, increase to National Grid proposed to the Residential distribution charge would be necessary to achieve the proposed revenue requirement if the customer charge remained at \$5/customer-bill?
  - b. What would be the average annual value of such an increase to existing residential net metering customers? Please provide the number of existing residential net metering customers and their annual kWh generation used to respond to this data request.

**Response can be found in Book 2 on Bates page(s) 109-110.**

- 9-41. In National Grid's response to Division 8-12 in Docket No. 4770 (Division 2-12 in Docket No. 4780), National Grid describes the undepreciated costs associated with existing meters that are replaced by AMI meters as "sunk costs and, therefore, should not be factored into the benefit-cost analysis." For simplicity, assume book life is equal to useful life, and meters are replaced when they are fully depreciated.

Regarding costs, in both the case that AMI are installed, and the case they are not installed, customers cannot avoid paying the undepreciated cost for the existing meters, and in that sense the undepreciated cost for the meters appear to be sunk costs, and thus should not be included as a cost category of the benefit-cost analysis.

Turning to benefits, if AMI are installed, customers will lose the value of the remaining metering life of the existing meters. However, if AMI are not installed, customers will get to use the remaining metering life of the existing meters—thus customers can avoid losing the value of the remaining metering life. Please explain why the different outcomes related to this (negative) benefit category (i.e., the remaining value to customers in existing meters) is not considered in National Grid’s cost-benefit analysis.

**The Company has received an extension to file PUC 8-3.**