

June 6, 2013

VIA HAND DELIVERY & ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

**RE: Docket 4397 - Review of Energy Efficiency and Advanced Gas Technology
Incentives For 12.5 MW Combined Heat and Power System
Responses to Commission Data Requests – Set 3**

Dear Ms. Massaro:

On behalf of National Grid¹ attached are the Company's responses to Commission 3-8 and Commission 3-9.

This transmittal completes the Company's responses to the Commission's Third Set of Data Requests concerning this proceeding.

Thank you for your attention to this filing. If you have any questions concerning this transmittal, please feel free to contact me at (401) 784-7288.

Very truly yours,



Jennifer Brooks Hutchinson

Enclosures

cc: Docket 4397 Service List
Leo Wold, Esq.
Steve Scialabba, Division

¹ The Narragansett Electric Company d/b/a National Grid (hereinafter referred to as "National Grid" or the "Company").

Certificate of Service

I hereby certify that a copy of the cover letter and/or any materials accompanying this certificate were electronically transmitted to the individuals listed below. Paper copies of this filing were hand delivered to the Rhode Island Public Utilities Commission.



June 6, 2013

Jennifer Brooks Hutchinson

**Docket No. 4397 - National Grid - Energy Efficiency and Advanced Gas Technology
Incentives for 12.5 MW CHP System Package to Toray
Service list updated 4/10/13**

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The Narragansett Electric Company
d/b/a National Grid
Docket No. 4397
In Re: Review of Energy Efficiency and
Advanced Gas Technology Incentives for
Toray Plastics' 12.5 MW CHP Project
Responses to the Commission's Third Set of Data Requests
Issued May 15, 2013

Commission 3-8

Request:

Referring to the response to DIV 1-3, the Screening Tool Tab calculates a payback of 7.58 years. What is the payback time for TORAY including the value of the incentives/rebates they will receive?

Response:

The simple payback calculation of 7.58 years equates to total costs of \$23,700,000 (cell D80) divided by total savings of \$3,125,332 (cell D96).

With the full incentive package of \$15,890,000, the simple payback calculation would be 2.5 years $[(\$23,700,000 - \$15,890,000)/\$3,125,332 = 2.49]$.

However, these simple payback calculations in the Screening Tool are equations that do not always reflect all customer-specific costs, such as Non-Energy Benefits (Costs) related to incremental operations and maintenance expenses in the case of Toray, as discussed in the Company's response to Commission 3-7. Furthermore, the costs to Toray for distribution services are estimated to be approximately \$200,000 more per year than initially calculated as part of the TA Study as a result of the recent amendments to the Company's general service tariff, General C&I Rate G-02, 200 kW Demand Rate G-32, and 3,000 kW Demand Rate G-62, approved by the Commission in Docket 4366. Including both of these costs in the savings calculation lowers the annual savings that Toray will likely experience to \$1,431,127.

In addition, the cost of the installed equipment that the Company used to determine the incentive amount is expected to be approximately \$22,700,000, which is lower than the total cost value that was used for purposes of the Screening Tool. Using all of these updated inputs, and dividing Toray's net investment of \$6,810,000 by the lower annual savings, results in a simple payback calculation of 4.76 years.

The Narragansett Electric Company
d/b/a National Grid
Docket No. 4397
In Re: Review of Energy Efficiency and
Advanced Gas Technology Incentives for
Toray Plastics' 12.5 MW CHP Project
Responses to the Commission's Third Set of Data Requests
Issued May 15, 2013

Commission 3-9

Request:

Referring to the response to DIV 1-3, please explain how the energy costs of \$0.07857/kWh and \$0.5902/therm used in the payback calculation were derived. (Inputs Tab, Cell L64 & L65)

Response:

The natural gas price was derived from the total of three components of cost divided by Toray's actual usage in 2011. The cost components included a forecast commodity cost using a future NYMEX Henry Hub contract price, Toray's actual basis pricing, and Toray's National Grid distribution billed amounts, based on the Extra Large High Load Rate. The total projected cost of \$4,383,041 was then divided by actual usage of 742,637 MMbtu, which equals an average cost of \$5.902 per MMbtu.

The electric price was derived from the calculated total of five components of cost divided by Toray's actual usage in 2011. The components included a forecast commodity price, Toray's actual broker fee cost, the 2014 Forward Capacity Market cost, and Toray's actual electric distribution costs, which include supplemental demand and backup demand charges. This total projected cost of \$7,987,360 was then divided by their usage of 101,657,000 kWh, which equals an average cost of \$0.07857/kWh.