

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

IN RE: NATIONAL GRID PROPOSED FY 2013 ELECTRIC : DOCKET NO. 4307
INFRASTRUCTURE, SAFETY AND RELIABILITY :
PLAN PURSUANT TO R.I.G.L. §39-1-27.7.1 :

DIVISION'S RESPONSES TO COMMISSION'S FIRST SET OF DATA REQUESTS
(February 24, 2012)

Commission 1-1

Request:

In Mr. Booth's testimony in Docket No. 4218, In Re: National Grid Proposed FY 2012 Electric Infrastructure, Safety and Reliability Plan Pursuant to R.I.G.L. § 39-1-27.7.1, addressing the four year vegetation clearing cycle, he stated, "Considering the Company's current projections for FY 2013 through FY 2016 show an increasing Damage/Failure Capital Cost trend of 13 percent, it will be critical to carefully track the actual benefits to assure there is a real and not imaginary benefit to cost ratio associated with the [Vegetation Management] Program and [Enhanced Hazard Tree Mitigation] Program." (Division Exhibit 4 at 18.)

- (a) Please explain how the Division believes such actual benefits might be tracked.
- (b) Please explain the appropriate time frame for tracking the benefits and the appropriate review period to determine whether the actual benefits are being realized.

Response:

- (a) The Company has stated that the Vegetation Management Program (VM) and Enhanced Hazard Tree Mitigation Program (EHTM), or combined called "Programs", will yield improved reliability and reduced Damage/Failure Capital Cost based on a study which it performed. That study was not based on actual results from the Programs or assessment of specific circuits which have been targeted by the Programs. The Company has an Outage Management System and other systems used to track its outages and reliability performance. The Company should utilize these systems to track the outages by circuit which have been addressed by the Programs and compare both the outage rates and cost of Damage/Failure versus the circuits that have not been a part of the cycle program. This will require that the Damage/Failure Capital Cost be subdivided into tree related and non-tree related and by circuit identifying whether the circuit has been part of the VM and EHTM Program. This will allow a differentiation of Damage/Failure Capital Costs between circuits based on the Company's completion of VM and EHTM work.

National Grid's Vegetation Management Program (VM) and Enhanced Hazard Tree Mitigation Program (EHTM) are both programs that strive to reduce the vegetation related damage to the electric system thereby reducing the impact to the customers serviced. The key issue is how to quantify the impact of these preventative maintenance programs. On the first level of evaluation, National Grid currently collects outage statistics and categorizes the number of events and duration for each outage event. These outage statistics do provide a measure of tree related Customer Minutes Interrupted (CMI); however, vegetation related outages are not subdivided into those that would have been mitigated by the EHTM Program. To address the first level of evaluation, the Division recommends that National Grid begins tracking vegetation related outages caused by hazard trees to supplement its current outage statistics. The second level of evaluation will need to address the operation and maintenance (O&M) expenses and capital costs attributable to vegetation outages. The Division recommends that National Grid begins tracking the associated expenses and capital

costs incurred to restore the electric system after a vegetation related outage event. Once National Grid begins tracking these directly attributable costs, the Damage/Failure Capital Cost budget category can be evaluated more completely. Currently, it is not fully clear what portions of this budget category are driving the overall upward trend for this type of spending. Although escalation of labor, materials, and fuel costs is a major portion of the continued upward trend in costs, the Company has implemented no mechanism to track the cost/benefit analysis of any preventive maintenance program, particularly the VM and EHTM Programs for which it contends there is a distinct cost/benefit. We have described above just one option for tracking the cost/ benefit. The Company knows the full capabilities of its automated programs, including its Outage Management System and Global Information System and, therefore, the Company may suggest a more efficient less labor intensive method for collecting the data and delivering to the Division a true cost/benefit analysis between the cost of VM and EHTM Programs and the savings to the Damage/Failure Capital Cost.

- (b) The Division would recommend tracking the program benefits for the VM Program over 4-years since this represents a complete VM Program cycle. The program's cost/benefit could then be reviewed annually based upon a rolling 4-year window. The evaluation could begin once National Grid began tracking the more detailed outage and accounting information as described in (a) above. Trend lines for the Damage/Failure Capital Costs and VM and EHTM Programs could be compared with the outage trend lines to yield both a cost/benefit analysis and a reliability analysis. At the end of four (4) years there should be a distinct pattern. The Company may wish to go back and gather historical information in order to start with a time frame that is prior to the current VM Program's 4-year clearing cycle and implementation of the EHTM Program. Additionally, there should be an inflation adjusted evaluation to eliminate annual aberrations due to price changes.

Respondent: Gregory L. Booth, PE

Commission 1-2

Request:

At the Technical Record Session in Docket No. 4218, Mr. Booth suggested that the Company, Division and Commission should be cautious when reviewing and scrutinizing the ultimate flood mitigation costs in order to ensure an appropriate spending to benefit ratio (see Transcript, 3/18/11 at 87). What type of review and scrutiny has the Division applied to National Grid's proposed Flood Mitigation spending included in the FY 2013 Electric ISR Plan?

Response:

The Company submitted, as part of its response to Division's Data Request 2, a copy of its "Flood Mitigation Study" which actually appears to be an internal review in a presentation format. As part of the study process, the Company also reviewed all of their substations and subsequently had any substations deemed to be "high" risk surveyed. Although the Company characterized this as a "Flood Mitigation Study", it is not in a "Final Study" format as it does not contain a formalized discussion of the recommendations and a proposed plan outlining the associated costs. The Division's consultant reviewed this study material in the context of the discussions of Docket No. 4218 and the Company's responses in Docket No. 4307. The Company has indicated it is completing its engineering assessment and detailed analysis of each substation's specific mitigation program, including reinforcement of portions of the existing system to feed areas, abandonment of substation facilities combined with reconstruction and modifications at existing sites, and construction of new substation facilities. Since the Company has not submitted a specific recommended Capital Projects Plan for the flood mitigation, the Division has only been in a position to evaluate the present study materials which, based on the Company's responses, is still a work in progress and is not a Company approved or proposed detailed plan of action. The Division is recommending that the Company submit its "Final" flood mitigation plan and long range cost projections six (6) months prior to the 2014 ISR plan in order to give the Division sufficient time to fully analyze the proposed plans, options, and costs while exploring the best solutions cooperatively with the Company, since the normal ISR Plan filing comment period would not be adequate to completely evaluate and reach a consensus with the Company on the best flood mitigation program.

Respondent: Gregory L. Booth, PE

Commission 1-3

Request:

Does the Division have an opinion regarding whether the equipment replacement and vegetation work performed in response to Hurricane Irene should reduce any Electric ISR spending in the future? Please explain.

Response:

The Division has evaluated this through discussions and the Company's submittal in response to Data Request 2. The Division made some reductions in the Vegetation Management Program budget due to Hurricane Irene response efforts. Since the Damage/Failure budget is part of the Statutory Capital Spending and is adjusted annually based on prior year's actual expenditures, an adjustment was not made in this Capital Cost category. The Division believes that there are certainly some areas which were enhanced by the storm restoration activities that will reduce future Damage/Failure Capital Costs, and there are just as likely other areas where the storm restoration was expedited in an effort to restore power quickly and those areas will experience greater Damage/Failure Capital Cost in coming years, thus the proposed budget should remain as projected.

Respondent: Gregory L. Booth, PE