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

Filed electronically and by overnight

11 September 2012

**Re: Docket 4237
Commission Investigation Relating to Stray and Contact Voltage Occurring in
Narragansett Electric Company Territories**

Dear Ms. Massaro,

Please accept our written comments responding to the 5 September 2012 submission from Power Survey Company regarding the issue of mobile contact voltage surveys.

In our letter, Power Survey's original comments are in *italics* and numbered, our replies are non-italicized.

1) We would like to express our concern regarding the proposed "Pilot Survey" which National Grid has elected to include as part of the company's Request for Proposal. As a matter of corporate policy, Power Survey Company cannot engage in an uncontrolled, ad-hoc technical evaluation, particularly when the evaluator does not possess adequate qualification to assess e-field detection equipment.

It is a little presumptuous that Power Survey would adopt a corporate policy prohibiting prospective customers from making an educated and informed decision. That they refuse to perform comparative testing is irrelevant to Narragansett Electric Companies or the Rhode Island Public Utility Commission. We are completely comfortable and confident in the capabilities of the NARDA 8950/10, and we will permit Power Survey to oversee or control that Pilot Survey demonstration, assuming NEC and the RIPUC allows it and are present. We simply ask that an outside independent observer be brought in as well. That is, Power Survey can be the evaluator- but ALL findings must be made public, and the final report written by the independent observer.

2) By contrast, the brief history of the Narda device is plagued with performance concerns, missed hazards, and a highly criticized "certification" document which was in fact written by the manufacturer, not a qualified test lab.

We point out to the RIPUC that the only two negative comments made about the NARDA 8950/10 were filed from Power Survey Company and the Jodie S Lane Public Safety

Foundation in New York State. At no point did Power Survey or the JSLPSF contact an outside independent electrical engineering firm to substantiate their claims- hardly a groundswell of opposition. We offered on a number of occasions to demonstrate the NARDA system to the JSLPSF first hand, but were never taken up on it. Same with the certification- PSC and JSLPSF were the only complainants in NY State. Neither of these entities are independent testing labs, so their comments on the certification really boil down to their opinions. UL on the other hand, is a top tier engineering organization recognized worldwide. They may not have physically typed that report, but their engineers read and signed it. The engineers clearly ran the testing, and that is so stated in the certification. That is not prohibited under NYPSC rules. We cannot speak to the technical issues of the SVD-2000 that would cause it to take years before their testing lab would certify it, but the NARDA did not have those issues. Too, Power Survey, the Deanna's Lyric Foundation and the JSLPSF have thrown this red herring out so many times, that Premier has obtained a second independent certification, which we will share with the appropriate RI government officials. The NARDA 8950/10 is now certified from 0.5 to over 600 volts AC. The only concerns about the NARDA come from the company that is in direct competition.

3) The proposed two day "pilot survey" will provide the Commission with uncontrolled test data, useless for making any determination, particularly one which bears such grave human consequences.

This is a vague statement without further elaboration as to what they mean....if they feel a 5, 10 or 15 day pilot survey will provide enough relevant data to the Commission, then we will participate in that. What does "uncontrolled" mean in this context? What factors would make Power Survey feel the testing data was useless? We can address those issues before the Pilot starts. The testing protocol is set and agreed to beforehand, and at the end of the Pilot period the findings are compared. You either detected the fault or you didn't- there is no grey area here. The results will be self evident, and we have faith in the RIPUC engineers to understand what they are looking at.

4) In the interest of satisfying any questions regarding the relative performance of the SVD2000 and the Narda device, we recommend the Commission and National Grid examine prior "head-to-head" studies of these two technologies performed by National Grid in Buffalo, NY as well as tests performed by Con Edison and Rochester Gas and Electric.

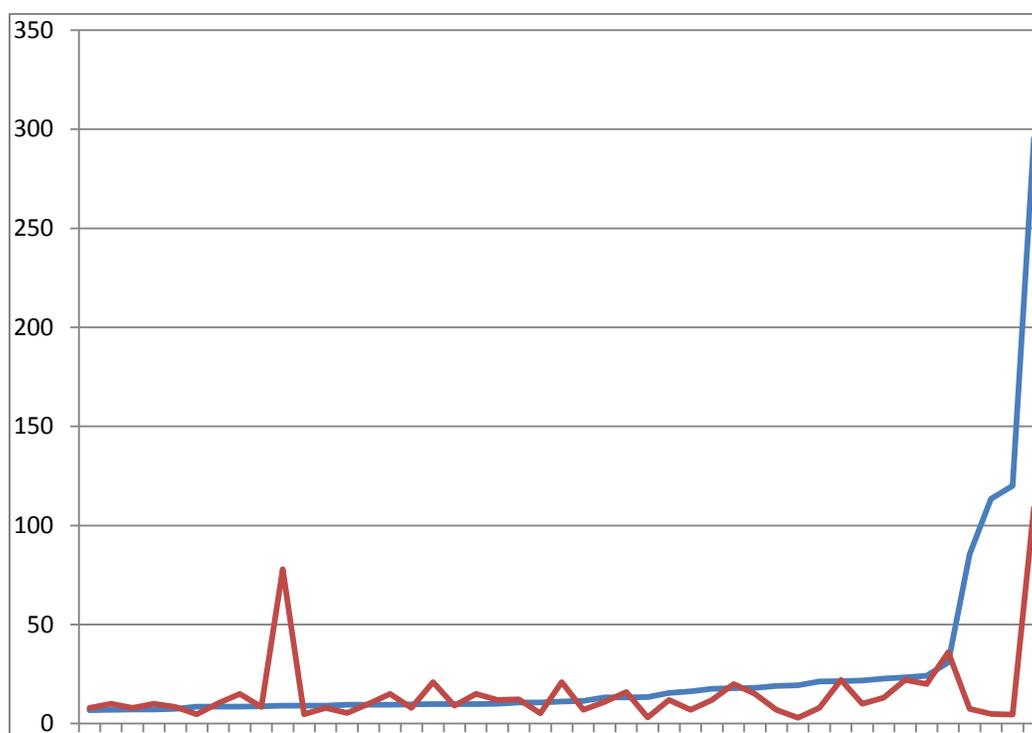
Please also see 5 and 6 below. One problem with using these old reports as suggested here is, at what point in time will Power Survey be kind enough to grant us with another head-to-head? A year from now? 5 years from now? 20? Why are there sports playoffs each year? Because things change. The fundamental NARDA technology remains the same, but our system operator skill levels have increased dramatically over the last 3 years as well as additional improvements to the hardware.

5) In the fall of 2010, National Grid performed an equipment evaluation in which the Narda device attempted to detect energized structures in Buffalo, NY, that had been previously detected by the SVD2000. During that evaluation, the Narda device failed to identify known

energized structures, prompting great concern on the part of the National Grid manager in charge of that effort.

The issue in Buffalo was related to the length of the Power Survey test leads used in what is called confirmation testing, which is explained below in point 6.

In 2009, Premier performed retesting (confirmation testing) on the findings from the SVD-2000 mobile survey in Buffalo. In the database there were 1,168 objects identified as having 1 volt or greater on them as reported by Power Survey. Using the APPROVED National Grid testing procedure outlined in NG-USA EOP G016, 656 (56%) of those 1,168 objects had no reportable voltage on them. In the Chart below, you see two interesting problems: Power Survey tends to read high on the lower voltages, but then tends to read low on the higher voltages. On this chart, the blue data is Premier re-checks. The red data is Power Survey findings.



So, yes, the NARDA could not pick up many of the 2010 voltages because they probably did not actually exist. Premier can make this data set available to the RIPUC as well as the original hand written transcripts from our field technicians for your own analysis. As a note, Premier did not own, and was not involved in, mobile contact voltage surveys in 2009. The NARDA 8950/10 went on sale in Spring 2010. Premier would have no reason to lower or falsify their 2009 Buffalo findings as we were not competing with Power Survey at that time.

6) In 2010, Rochester Gas and Electric attempted to use the Narda device in the field to comply with a New York Commission order; they determined that the Narda device failed to detect over 80% of the energized objects it passed.

Mathematically, this is a true statement. But examine the underlying reason for it: it is by virtue of the fact that Power Survey was using a different confirmation protocol than Premier, or permitted by RG&E's State approved testing procedures. Yes, Premier did locate only 40 hazards in Rochester compared to Power Surveys 251, but a critical element had been changed between the two firms: Power Surveys use of exceptionally long test leads on their voltmeters. Taken directly from the Rochester Gas and Electric filing to the NYSPC for 2010:

"In prior testing years 2009, as well as in 2010, mobile testing in the City of Rochester was performed following RG&E's test procedure using a ground reference point within four (4) feet of the structure (touch potential). This year, Power Survey conducted mobile testing using their company test procedure which was based on using a ground reference point where ever a clean ground could be found. Power Survey did not believe in driving a reference ground within 4 feet of the energized object, or in testing for touch potential. They would search for a clean, un-energized reference ground to take a voltage read. In many cases, the ground references used were in varying distances up to 60 feet from the source, and more than one clean reference ground would be utilized per energized object. RG&E believes this ground reference procedure of utilizing long grounding conductors may actually increase the chances of picking up induced voltages from other sources. The majority of findings this year were in the 1-1.9 volt range, many in areas where induction may be probable. The effect of this procedure increases the number of findings, and can lead to misconceptions making it difficult to draw any substantial conclusions from year to year trending. This procedure would account for the significant amount of findings reported this year as compared to the previous 2 years."

So, RG&E is telling us the numbers are skewed and exactly why they are distorted. It had nothing to do with the NARDA 8950/10, but the length of Power Surveys test leads. This is backed up by our 2009 Buffalo testing.

This phenomena can easily be demonstrated on many, but not all, light poles. Simply hook up a multimeter, with a 50 Ω shunt resistor, to a metal pole and move your test leads out in 5 foot increments and take a voltage reading to earth. You will see the digital display increase in value the further you move away from the pole. In some cases you can get it to pass 1-volt in a fairly short distance, making it reportable in NY State.

One of the things that we have changed in our company testing protocol is that we now document EVERY stop we make. If we find nothing, we GPS tag the area and submit it as a false positive- something we did not do in Rochester 2010. An actual number would be pure speculation, but we stopped many more times in Rochester to explore potential events that just the reported 40.

6) At the request of the New York Commission Staff, Con Edison prepared a report of their experience with the device; Con Edison, also concluded that it failed to detect the majority of energized objects in the field.

We cannot comment on this point as after extensive searching on the NYSPSC website as we cannot find this document. Would Power Survey please provide a reference? Is it incorporated with another filing, case or topic?

7) *Between these three head-to-head evaluations, the Narda device failed to detect hundreds of energized objects in the field. In fact, since the Narda device was introduced in 2010, we are not aware of a single published field trial in which the device was shown to reliably detect contact voltage. By consequence, it is not being used in New York State by any utility, including National Grid.*

This may be a semantics issue, but in reviewing the Buffalo and the Rochester reports, at no time were these two different technologies operating in the same arena at the same time, or “head-to-head” as stated. Days or weeks often elapsed between when one system went through an area and then the other. In the case of Rochester, Premier did not submit our daily survey plans to Power Survey nor were we required to. RG&E did not give them our production schedule. They (Power Survey) cannot have known what specific areas or streets we were working in while we performed that contract. We only had one mobile survey vehicle at that time, and our routes were pretty straight forward...we would have seen the SVD-2000 in operation if they were in close proximity to us.

The NARDA 8950/10 is not being used in New York not because it is inadequate, but because of unfounded filings such as this that draws negative interest to the utilities

We respectfully request that the RIPUC dismiss Power Surveys petition for the denial of the use of the NARDA 8950/10 mobile contact voltage detector in the State of Rhode Island based on the facts presented here. While Power Survey did make some points here that would seem to be correct, a full reading and review of the commission filings they reference tell a different story.

The original RI House and Senate bills on contact voltage testing were clearly written as a technical specification for one testing firm. Thankfully, the Substitute “A” versions of the bills were the ones that actually passed into law- permitting fair and open competition. Premier has been fighting this battle for 5 years. If the RIPUC does not allow Narragansett Electric Company to have a free and open bidding on this, you will never have a second service provider choice. Many State utility commissions and electric utilities are closely watching what is going on here in Rhode Island, and concurrently in Maryland, as are some of our competitors. No firm will ever be able to meet the arbitrary standards set by outside influences, and if they get close, the height of the bar will be changed.

Very respectfully,

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