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September 17, 2010

BY MAIL and RESS

Ms. Kirsten Walli  
Board Secretary  
Ontario Energy Board  
P.O. Box 2319  
27th Floor  
2300 Yonge Street  
Toronto, ON M4P 1E4

Dear Ms. Walli:

**Re: Initiative to Develop Electricity Distribution System Reliability Standards  
Board File Number EB-2010-0249**

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Veridian Connections Inc. ("Veridian") is pleased to provide the following responses to the information requests contained within Appendix A of the Board's August 23rd 2010 letter concerning system reliability standards:

*Request #1: In addition to SAIDI, SAIFI and CAIDI, what if any, other system reliability measures do you use?*

Response: In addition to SAIDI, SAIFI and CAIDI, Veridian tracks its momentary system interruptions and calculates the Momentary Interruption Frequency Index (MAIFI) on a monthly basis using the following formula:

$$\text{MAIFI} = \frac{\text{Number of Momentary Interruptions for all Customers}}{\text{Total Number of Customers Served}}$$

Veridian tracks the above system quality indices for its entire distribution service territory, but also maintains the same reliability records for the geographic areas covered by its two distribution rate zones; Veridian\_Main and Veridian\_Gravenhurst. This data is used to assist in the management of system quality within Veridian's diverse distribution service areas..

*Request #2: Detailed description of methodology utilized to record SAIDI and SAIFI. Include information such as,*

- *The degree of use of automated event tracking from SCADA systems, as well as reliance on manual observations.*
- *Whether planned outages are tracked separately.*
- *The level of detail captured throughout a stepped restoration process to record the total customer duration impact.*

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Response: At present outages are tracked manually within the Veridian 24/7 control room using the SCADA system and information provided by field staff. Each outage is logged by the control room operator into a spreadsheet. The outage location, cause, number of customers affected and time of outage and restoration are recorded. Each outage event is reviewed and approved by the Operations Supervisor to ensure that it is recorded accurately. Distribution system reliability indices are calculated automatically by the spreadsheet each month and validated by the Distribution Engineer. Veridian is currently implementing an automated system for outage management that, when fully implemented, will automate the collection of outage information for the purpose of calculating system quality indices.

Planned outages are tracked separately. Each outage is tracked against the Ontario Energy Board (OEB) outage causation code. Veridian has also added an increased level of detail to each OEB code for the purpose of internal monitoring and outage causation analysis.

During a stepped restoration process, the number of customers restored and the time is logged for each restoration step. This process ensures accurate system quality indices calculations during large outages where the distribution system is being restored in sections.

*Request #3: Use of System reliability performance results in planning, investment and maintenance expenditures, as well as establishing operation and maintenance procedures at Veridian.*

Response: Veridian currently has a committee of internal subject matter experts that meet on a quarterly basis to review, in detail, distribution system outages contributing to reliability performance. Information on all outages is collected through the 24/7 control room as described above and analyzed and sorted by the Grid Operations Engineer for the root cause of the outage.

The outage information is prepared by the Grid Operations Engineer in a report format for review by the committee. Each feeder in the Veridian system is ranked from worst performing to best performing with outage causation analysis attached for the committee's review and action plan preparation. The committee reviews the report at its quarterly meetings and uses the information for preparing short and long-term plans for capital and maintenance spend decisions on the distribution system.

The committee also identifies the opportunity for improvements to maintenance procedures, engineering and construction standards, and material improvements that will positively affect distribution system reliability.

*Request #4: Do you identify and track the impacts of extraordinary events?*

Response: Veridian currently tracks the impacts of extraordinary events on its distribution system reliability indices for internal reporting purposes only. For example, the Gravenhurst service territory experienced a tornado in August, 2009, resulting in a large impact to distribution system reliability. This particular event was tracked separately and excluded for internal reporting purposes.

Veridian is currently reviewing and contemplating the use of IEEE 1366 Standard guideline for excluding major events from distribution system reliability indices.

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*Request #5: What other actions do you take to manage system reliability performance?*

Response:

- Veridian measures distribution system reliability as a component of its balanced scorecard approach to managing utility performance. Reliability targets are established annually and utilized as part of the non-union staff performance management system.
- Veridian employs an experienced Distribution System Engineer with a primary responsibility for monitoring the performance of the distribution system and making recommendations for the continuous improvement of distribution system reliability.
- Veridian maintains a 24/7 control room staffed with qualified distribution system operators.
- Veridian has established service depots at various locations within the Veridian Service territories to provide optimum crew response times to distribution system outages.
- Veridian maintains a Power Restoration Manual that documents procedures to be followed by all staff members in the event of distribution system outages. The manual is periodically reviewed, updated and practiced to ensure relevancy and staff competence.
- Veridian follows a best practice of restoring the greatest number of customers possible prior to affecting distribution system repairs during an outage.
- Veridian conducts customer surveys and retains complaint resolution and call centre records as a measure of its service quality.
- Veridian is an active member of the Service Continuity Committee of the Canadian Electricity Association (CEA). Participating in this association provides Veridian with an opportunity to remain current with best industry practices regarding distribution system reliability.
- Veridian is a member of the Group 5 mutual assistance agreement registered with the IESO. The agreement between Veridian Connections, Whitby Hydro, Oshawa PUC Networks, Peterborough Utilities and Lakefront Utilities ensures mutual assistance to each utility in the event of large outages. The agreement has been successfully implemented on a number of occasions over the past several years.

Please do not hesitate to contact me if you have any questions.

Yours truly,

*original signed by*

Steve Zebrowski  
Regulatory and Key Projects Analyst

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