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**BY E-MAIL AND WEB POSTING**

May 3, 2016

To: All Licensed Electricity Distributors  
All Participants in Consultation Process EB-2014-0189  
All Other Interested Parties

**Re: EB-2015-0182**

**Amendments to the Reporting and Record Keeping Requirements  
Regarding System Reliability**

On December 7, 2015, the OEB issued a [Report of the Board: Electricity Distribution System Reliability: Major Events, Reporting on Major Events and Customer Specific Measures](#) (December Report).

The purpose of the December Report was to explore issues related to establishing system reliability performance expectations for licensed electricity distributors. The three main issues were: to develop a definition for Major Event; to develop new reporting requirements that will be used to evaluate a distributor's response to a Major Event; and to establish an approach to implement customer specific system reliability measures.

The December Report set out the OEB's proposals and requested stakeholder feedback on those proposals.

In response to the December Report, the OEB received ten written comments from stakeholders including those from distributors, the Electricity Distributor's Association, the Power Workers Union, Canadian Manufacturers & Exporters, and the Independent Electricity System Operator.

Based on the December Report and the comments received in response to the December Report, the OEB is making amendments to the Electricity Reporting and Record Keeping Requirements (RRR) in relation to the definition of Major Event and reporting requirements that will be used to evaluate a distributor's response to a Major Event. Issues relating to customer specific system reliability measures will be dealt through a separate process.

The amendments are set out in Attachment A (clean version). Attachment B contains a comparison version of the amendments (for information only) that compares the final amendments to the amendments proposed in the December Report.

### **Definition of Major Event**

The December Report proposed a definition for a "Major Event". Stakeholders raised a number of issues in response to the proposed definition.

There were concerns raised that the interpretation of what is and what is not included in the four characteristics set out in the proposed definition (unforeseeable; unpredictable; unpreventable; and unavoidable) may be contentious and limit meaningful comparability of Major Events across the industry. There was also a concern raised that the ability of distributors to use different methodologies to identify the scope of an event will undermine consistency and the ability of the OEB to undertake reliability benchmarking.

The OEB notes that part of the proposed new reporting requirements will be questions related to why the distributor considers the event to have qualified as a Major Event. This will allow OEB staff to review the distributor's interpretation of the definition and ensure the identification of the event is appropriate and consistent with the interpretation taken by other distributors.

There was a suggestion that a Major Event should not be required to meet all four characteristics listed in the proposed definition (unforeseeable; unpredictable; unpreventable; and unavoidable). The view is this approach sets too high a threshold and risks that few, if any, major events will qualify. It was suggested that a Major Event be ***either*** unforeseeable, unpredictable, unpreventable, ***or*** unavoidable.

There was also a suggestion that the definition of what constitutes a "beyond control of the distributor" ***include but not be limited to*** those that are the result of natural forces or an action by a third party, including loss of supply events. Other parties also suggested that the definition take into account the concept of force majeure.

The OEB will make changes to the wording of the proposed amendments to reflect the suggestions mentioned above.

There was one distributor who took the view that the OEB should not add an element of force majeure, or events beyond control of the distributor, to the IEEE Standard approach. It has been their experience that all events that qualify under the IEEE Standard have been out of the distributor's control, so the additional qualifications are unnecessary.

It is the OEB's view that Major Events should be rare events. As a result, the criteria should be strict. Also it is important the concept of a Major Event be tied firmly to causes that are outside of the distributor's control. This will ensure that distributors are only excluding events that are truly beyond normal operations. Otherwise, a distributor may be able to exclude outage events that could have been minimized through good asset management practices.

It was recommended that the OEB identify the IEEE Standard 1366 as the default approach, with the distributor being required to justify using one of the non-default options. The OEB believes that the IEEE Standard 1366 should be used whenever appropriate. Therefore, the Major Event definition will be amended to highlight that the IEEE Standard 1366 is the preferred approach. As well, the reporting requirements will be amended to include a question on which methodology was used and why.

There were mixed comments on whether the OEB should or should not review and approve each determination of a Major Event. The OEB believes that it would be more efficient if distributors make the determination of what events meet the criteria of a Major Event. It is expected that the definition provides adequate guidance for distributors to understand the concept of a Major Event and in most cases will make the correct determination. OEB staff will use the information supplied by the new reporting requirements to ensure that the definition of Major Event is being identified and applied properly and consistently.

The December Report raised the issue of the comparability of data between historical data on file with the OEB that is not adjusted for Major Events and the new information that will be filed that is adjusted for Major Events. If the data used on the Distributor Scorecards is not comparable, then monitoring the metrics and trends on the Distributor Scorecards will not be accurate. To resolve this issue, all distributors who commented on the December Report stated that they could re-file five-years of historical data adjusted to remove the effects of Major Events. The OEB is of the view that obtaining and using this historical data will address concerns over the comparability of data on the Distributor Scorecards.

Therefore, for the 2016 reporting year (filed in April 2017), distributors will be required to file outage data that excludes Major Events for both the current year and the 4 previous years (i.e., 5 years of data on the scorecard.)

Distributors will continue to measure and report their performance both inclusive and exclusive of the impact of Major Events. Unadjusted information is still important for assessing a distributor's overall asset management program(s). However, for purposes of using this data on the Distributor Scorecards, the performance target will be based on normalized data (excluding the impact of Major Events).

In order to track specific outage details of the Major Event, the OEB will also add a new code to the list of "cause codes" set out in the RRRs to identify outages that qualify as a Major Event.

### **Monitoring Response to Major Events**

The December Report proposed three sets of questions that distributors would need to answer relating to: actions prior to the event (7 questions); actions during the event (19 questions); and actions after the event (3 questions). The answers to the questions will be used as the criteria to evaluate a distributor's response to a Major Event.

The December Report proposed requiring a distributor to file a report within 60 days of the end of the Major Event. The December Report also proposed that distributors make their reports available to the public on their website. The OEB is also considering posting these reports on the OEB's website.

In response to these proposals, stakeholders raised a number of issues.

The most common comment was that the proposed reporting requirements will be burdensome and produce little value to the consumer relative to the potential costs. It was also stated that many of the questions listed are not relevant given the fact that distributors have emergency plans in place and perform their own post mortem analysis with a view to improving reaction time during an outage event. As such, the questions proposed by the OEB are a duplication of this practice.

Also, it was felt that the questions are too prescriptive. It was suggested that consideration be given to having distributors describe their response in narrative form, with particular emphasis on discussing how the distributor's response met or did not meet the needs of their customers and other stakeholders. The questions should focus

on activities related to the publication of estimated restoration time, communication with customers, and details of the outage.

It is the OEB's view that the proposed reporting requirements are essential to allow for OEB analyses of a distributor's operation. Reviewing what types of events are considered Major Events by the distributor, how many of these types of events are experienced by the distributor (in comparison with other distributors), and how the distributor coped with the Major Event, will shed light on the quality of the distributor's asset management plan.

The OEB notes that distributors have reported that they already monitor the same type of information covered in the new reporting requirements. The reporting requirements cover basic details of an outage event, which the distributor would be monitoring in any event. As a result, the OEB does not think the reporting will be burdensome.

The OEB believes that using a narrative form allows too much flexibility in reporting details and will make it more difficult for the OEB and stakeholders to review and compare the information.

A few of the written comments suggested that some of the questions are either too specific or require further clarification. These stakeholders provided suggestions on how to improve the wording of the proposed reporting requirements. The OEB agrees that some of the proposed wording changes do provide clarity. As such, the wording of the proposed reporting requirements will be revised as appropriate.

There was a view expressed that questions set out in the proposed reporting requirements do not relate to the expectations set out in section 4.5.6 and section 4.5.7 of the Distribution System Code. The OEB notes that sections 4.5.6 and 4.5.7 of the Distribution System Code speak to the requirement for distributors to have emergency plans and outage management policies. The OEB believes the new reporting requirements relate directly to the implementation of emergency plans and outage management policies.

There was a concern expressed that the proposed reporting requirements will demand additional resources during a Major Event and will compete with other critical tasks for scarce resources.

The OEB agrees that restoration of service is the first priority during any outage event. However, all the reporting requirements relate to information that can be determined after the event. Real time reporting is not being required. The OEB also expects that as

part of a normal response to any outage, distributors would be logging the customer experience and keeping track of the activities covered by the reporting requirements.

There was a concern that asking questions about contacting critical load and life support customers will lead to liability issues and an expectation that distributors will proactively contact these customers prior to a Major Event. The OEB accepts this concern and will remove reference to those specific types of customers. However, the OEB continues to believe that questions relating to how distributors prepared customers for the Major Event, when the distributor had prior warning, are valuable.

One stakeholder suggested that the OEB consider the following factors when evaluating a distributor's response to a Major Event:

- Ensuring essential services have backup facilities;
- Use of distributed generation to move power to essential loads;
- Accelerated vegetation management;
- Damaged or unavailable transmission and distribution system facilities during the event;
- Extent that outage impacts could have been mitigated; and
- Declarations by governmental authorities, regulators, or the grid operator of an emergency state of operation.

The OEB believes that some of these suggestions are suitable to include in the new reporting requirements because they will help to provide greater insight into the distributor's response to a Major Event. Those include questions related to the use of distributed generation, declarations of a state of emergency, and the unavailability of the transmission system.

It was suggested that the proposed reporting requirements are already addressed in distributors' emergency plans. These emergency plans are filed with the IESO and reviewed and updated annually. It has been suggested that distributors be required to submit, on an annual basis, signed attestations that the distributors' formal emergency operations plan and formal crisis communications plan is in place.

Based on input from the System Reliability Working Group, it is the OEB's understanding that not all Major Events trigger the implementation of emergency plans. The OEB also notes that the purpose of the reporting requirements is not to review emergency plans or to develop communication plans. This remains the responsibility of the distributors. Rather, the reporting requirements will be used to monitor the implementation of those plans, as well as to provide insight into what type of events distributors are considering as Major Events and why.

One stakeholder suggested adding reporting requirements relating to the costs incurred in response to a Major Event. The view expressed was that this information would be of assistance as this could inform decisions about the reasonableness of future investments targeted at limiting the impact of similar Major Events in future.

While the OEB agrees that insight into response costs could be valuable, it also believes that this requirement would add an unnecessary burden to the reporting requirements. The OEB's view is that such information should be presented as evidence and reviewed during a rates proceeding, not through a reporting requirement.

There were concerns raised regarding the appropriateness of the questions related to call answering. A common view was that, with the increased ability for customers to gain information from multiple sources, reporting on calls answered by a live representative holds very little value in enhancing the process for responding to Major Events.

The OEB agrees that some of the proposed phone answering questions may be less relevant with today's technology. Those questions will be removed as appropriate. However, the OEB continues to believe that questions related to how many calls were dealt with by the IVR versus how many calls were dealt with by a live representative are valuable. This will demonstrate how effective the distributor is in providing automated information.

Due to the number of questions to answer, distributors proposed that their reports be due 90 days after the Major Event (not 60 days as proposed). In recognition of this concern, the OEB will revise the reporting requirement to state that the report be due 60 days after the Major Event unless there are exceptional circumstances, in which case the report may be filed up to 90 days after the Major Event.

Consumer groups suggested that these reports be posted on both the distributors' and the OEB's websites. Most distributors felt that customer communication and education should remain the domain of the distributors. One party submitted that the reports should not be publicly available as they include details that require industry knowledge to understand.

It is the OEB's expectation that these reports will be a way to inform the average customer of a distributor's operations, so the reports should be accessible. The OEB does not believe that plain language answers to the questions set out in the reporting requirements would require specialized knowledge to understand the results.

The OEB will publish these reports on the electricity distributor performance data pages on the OEB's website. The OEB will also require distributors to publish their own reports on their websites to inform their own customers.

The proposed reporting requirements will be amended accordingly.

### **Effective Date**

The amendments to the Electricity RRR, as set out in Attachment A, are effective as of today's date.

The first reporting of SAIDI and SAIFI adjusted for Major Events (under sections 2.1.4.2.8 and 2.1.4.2.9 of the RRR) will be due on April 30, 2017 (for the 2016 annual reporting period).

If you have questions regarding these amendments, please contact [industryrelations@ontarioenergyboard.ca](mailto:industryrelations@ontarioenergyboard.ca) or 1-888-632-6273 (toll-free within Ontario).

Dated at May 3, 2016

Yours truly,

*Original Signed By*

Kirsten Walli  
Board Secretary

Attach:        Attachment A: Electricity RRR Amendments (clean version)  
                 Attachment B: Electricity RRR Amendments (track changes version  
   comparing the final amendments to the proposed  
   amendments from the December Report) (for informational  
   purposes only)



## **ATTACHMENT A**

### **Amendments to the Electricity RRR**

**(clean version)**

**May 3, 2016**

**EB-2015-0182**

**Note: The text of the amendments is set out in italics below, for ease of identification only.**

1. Section 2.1.4.2 is amended by adding the following definition at the end of the "Definitions" section:

- 7) *"Major Event" is defined as an event that is beyond the control of the distributor and is:*
  - a) *unforeseeable;*
  - b) *unpredictable;*
  - c) *unpreventable; or*
  - d) *unavoidable.*

*Such events disrupt normal business operations and occur so infrequently that it would be uneconomical to take them into account when designing and operating the distribution system. Such events cause exceptional and/or extensive damage to assets, they take significantly longer than usual to repair, and they affect a substantial number of customers.*

*"Beyond the control of the distributor" means events that include, but are not limited to, force majeure events and Loss of Supply events.*

*When assessing whether a substantial number of customers were affected and whether it took significantly longer to restore service than normal, distributors shall*

follow the Canadian Electricity Association's Major Event Determination Reference Guide. As set out in the Guide distributors shall use one of the following approaches:

- a) The IEEE Standard 1366 approach (preferred method);
- b) The IEEE Standard 1366 approach, using a two day rolling average; or
- c) The fixed percentage approach (i.e., 10% of customers affected).

*Distributors shall include all outages that occurred during the Major Event, including those that may be unrelated to the event itself, but occurred at the same time.*

2. Section 2.1.4.2.5 is amended by adding the following at the end of the chart entitled "Cause of Interruption":

10	<p><b>Major Event</b></p> <p>Customer interruptions due to a Major Event. These interruptions should also be counted under the actual Cause of Interruption listed above.</p>
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3. Section 2.1.4.2 is amended by adding the following sections:

**2.1.4.2.8 SAIDI (Major Events)**

*This index adjusts SAIDI for the effects of interruptions caused by Major Events, and is calculated in the same way as described in section 2.1.4.2.1, except that the total customer-hours of interruptions caused by Major Events is deducted from the total customer-hours of interruptions.*

*A distributor is required to monitor this index monthly and to report to the Board the following information for each month of the year:*

- a) Total customer-hours of interruptions in each month;
- b) Total customer-hours of interruptions in each month caused by Major Events;
- c) Average number of customers served in each month; and
- d) Adjusted SAIDI, being  $((a) - (b))/(c)$ .

#### 2.1.4.2.9 SAIFI (Major Events)

*This index adjusts SAIFI for the effects of interruptions caused by Major Events, and is calculated in the same way as described in section 2.1.4.2.3, except that the total number of interruptions caused by Major Events is deducted from the total interruptions.*

*A distributor is required to monitor this index monthly and to report to the Board the following information for each month of the calendar year:*

- a) Total number of customer interruptions in each month;*
- b) Total number of customer interruptions in each month caused by Major Events;*
- c) Average number of customers served in each month; and*
- d) Adjusted SAIFI, being ((a) - (b))/(c).*

#### 2.1.4.2.10 Major Event Response Reporting

*When a distributor determines an outage was caused by a Major Event, it shall file a report with the OEB that outlines the distributor's response to the Major Event, including answers to all of the questions set out below.*

*The distributor shall file this report with the OEB within 60 days of the end of the Major Event unless there are exceptional circumstances, in which case the report can be filed within 90 days of the end of the Major Event. The distributor shall also post this report on its website at the same time it is filed with the OEB.*

##### **Prior to the Major Event**

- 1. Did the distributor have any prior warning that the Major Event would occur?*
- 2. If the distributor did have prior warning, did the distributor arrange to have extra employees on duty or on standby prior to the Major Event beginning? If so, please give a brief description of arrangements.*
- 3. If the distributor did have prior warning, did the distributor issue any media announcements to the public warning of possible outages resulting from the pending Major Event? If so, through what channels?*

4. *Did the distributor train its staff on the response plans for a Major Event? If so, please give a brief description of the training process.*
5. *Did the distributor have third party mutual assistance agreements in place prior to the Major Event? If so, who were the third parties (i.e., other distributors, private contractors)?*

### ***During the Major Event***

1. *Please explain why this event was considered by the distributor to be a Major Event.*
2. *Was the IEEE Standard 1366 used to identify the scope of the Major Event? If not, why not?*
3. *Please identify the Cause of Interruption for the Major Event as per the table in section 2.1.4.2.5.*
4. *Were there any declarations by government authorities, regulators or the grid operator of an emergency state of operation in relation to the Major Event?*
5. *When did the Major Event begin (date and time)?*
6. *What percentage of on-call distributor staff was available at the start of the Major Event and utilized during the Major Event?*
7. *Did the distributor issue any estimated times of restoration (ETR) to the public during the Major Event? If so, through what channels?*
8. *If the distributor did issue ETRs, at what date and time did the distributor issue its first ETR to the public?*
9. *Did the distributor issue any updated ETRs to the public? If so, how many and at what dates and times were they issued?*
10. *Did the distributor inform customers about the options for contacting the distributor to receive more details about outage/restoration efforts? If so, please describe how this was achieved.*
11. *Did the distributor issue press releases, hold press conferences or send information to customers through social media notifications? If so, how many times did the distributor issue press releases, hold press conferences or send information to customers through social media notifications? What was the general content of this information?*

12. *What percentage of customer calls were dealt with by the distributor's IVR system (if available) versus a live representative?*
13. *Did the distributor provide information about the Major Event on its website? If so, how many times during the Major Event was the website updated?*
14. *Was there any point in time when the website was inaccessible? If so, what percentage of the total outage time was the website inaccessible?*
15. *How many customers were interrupted during the Major Event? What percentage of the distributor's total customer base did the interrupted customers represent?*
16. *How many hours did it take to restore 90% of the customers who were interrupted?*
17. *Was any distributed generation used to supply load during the Major Event?*
18. *Were there any outages associated with Loss of Supply during the Major Event? If so, please report on the duration and frequency of Loss of Supply outages.*
19. *In responding to the Major Event, did the distributor utilize assistance through a third party mutual assistance agreement?*
20. *Did the distributor run out of any needed equipment or materials during the Major Event? If so, please describe the shortages.*

### ***After the Major Event***

1. *What steps, if any, are being taken to be prepared for or mitigate such Major Events in the future (i.e., staff training, process improvements, system upgrades)?*
2. *What lessons did the distributor learn in responding to the Major Event that will be useful in responding to the next Major Event?*
3. *Did the distributor survey its customers after the Major Event to determine the customers' opinions of how effective the distributor was in responding to the Major Event? If so, please describe the results.*

## ATTACHMENT B

### Amendments to the Electricity RRR

(track changes version comparing the final amendments to the proposed amendments from the December Report)

May 3, 2016

EB-2015-0182

**Note: The text of the amendments is set out in italics below, for ease of identification only.**

1. Section 2.1.4.2 is amended by adding the following definition at the end of the "Definitions" section:

7) A "Major Event" is defined as event that is beyond the control of the distributor and is ~~characterized as:~~

- a) unforeseeable;
- b) unpredictable;
- c) unpreventable; ~~or and~~
- d) unavoidable.

*Such events disrupt normal business operation and occur so infrequently that it would be uneconomical to take them into account when designing and operating the system. Such events cause exceptional and/or extensive damage to assets, which affect a substantial number of customers, and the repairing of which takes significantly longer than usual.*

*"Beyond the control of the distributor" means events that ~~include, but are not limited to, force majeure and are a result of natural forces or an action by a third party, including~~ Loss of Supply events.*

When assessing ~~the threshold of whether~~ a substantial number of customers affected and whether it took significantly longer to restore service restoration times than normal, distributors shall follow the ~~recommendations set out in the~~ Canadian Electricity Association's Major Event Determination Reference Guide. Distributors shall use one of the following approaches: This approach recommends distributors use one of the following options whichever is appropriate to the distributor's circumstances. These options are:

- a) The IEEE Standard 1366 approach (preferred method)
- b) The IEEE Standard 1366 approach, using a two day rolling average
- c) The ~~Fixed P~~percentage approach (i.e. 10% of customers affected)

Distributors shall include all outages that occurred during the Major Event, including those that may be unrelated to the event itself, but occurred at the same time.

2. Section 2.1.4.2.5 is amended by adding the following at the end of the chart entitled "Cause of Interruption":

<u>10</u>	<p><u>Major Event</u></p> <p><u>Customer interruptions due to a Major Event. These interruptions should also be counted under the actual Cause of Interruption listed above.</u></p>
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3. Section 2.1.4.2 is amended by adding the following sections:

2.1.4.2.8 SAIDI (Major Events)

This index adjusts SAIDI for the effects of interruptions caused by Major Events, and is calculated in the same way as described in section 2.1.4.2.1, except that the total customer-hours of interruptions

caused by Major Events is deducted from the total customer-hours of interruptions.

A distributor is required to monitor this index monthly and to report to the Board the following information for each month of the year:

- a) Total customer-hours of interruptions in each month;
- b) Total customer-hours of interruptions in each month caused by Major Events;
- c) Average number of customers served in each month; and
- d) Adjusted SAIDI, being ((a) - (b))/(c).

#### 2.1.4.2.9 SAIFI (Major Events)

This index adjusts SAIFI for the effects of interruptions caused by Major Events, and is calculated in the same way as described in section 2.1.4.2.3, except that the total number of interruptions caused by Major Events is deducted from the total interruptions.

A distributor is required to monitor this index monthly and to report to the Board the following information for each month of the calendar year:

- a) Total number of customer interruptions in each month;
- b) Total number of customer interruptions in each month caused by Major Events;
- c) Average number of customers served in each month; and
- d) Adjusted SAIFI, being ((a) - (b))/(c).

#### 2.1.4.2.10 Major Event Response Reporting

When a distributor determines an outage was caused by a Major Event, it shall file a report with the OEB that outlines the distributor's response to the Major Event, including answers to all of the questions set out below.

The distributor shall file this report with the OEB within 60 days of the end of the Major Event unless there are exceptional circumstances, in which case the report can be filed within 90 days of the end of the Major Event. The distributor shall also post this report on its website at the same time it is filed with the OEB.

### **Prior to the Event**

1. Did the distributor have any prior warning that the event would occur?



2. If the distributor did have prior warning # so, did the distributor arrange to have extra employees on duty or on standby prior to the event beginning? If so, please give a brief description of arrangements.
3. If the distributor did have prior warning # so, did the distributor issue any media announcements to the public warning of possible outages resulting from the pending event? If so, through what channels?
- ~~4. If so, did the distributor contact and notify those customers who rely on electricity supply for life support and/or critical facilities (e.g. hospitals, community shelters) about possible outages resulting from the pending event? If so, through what channels?~~
- ~~5.4. Did Has~~ the distributor trained its staff on the response plans for a Major Event? If so, please give a brief description of the training process.
- ~~6.5.~~ Did the distributor have ~~3<sup>rd</sup>~~ third party mutual assistance agreements in place prior to the event? If so, who were the third 3<sup>rd</sup> parties? (e.g. – other distributors, private contractors)
- ~~7. In responding to the event, did the distributor utilize assistance through these 3<sup>rd</sup> party mutual assistance agreements?~~

### During the Event

1. Please explain why this event was considered by the distributor to be a Major Event.
2. Was the IEEE Standard 1366 used to identify the scope of the Major Event? If not, why not?
- ~~4.3.~~ Please identify the Cause of Interruption for the Major Event as per the table in section 2.1.4.2.5.
- ~~2.~~ Did other distributors in the area experience the same event?
4. Were there any declarations by government authorities, regulators or the grid operator of an emergency state of operation in relation to the Major Event?
5. When did the Major Event begin (date and time)?
- ~~3.6.~~ What percent of on-call distributor staff was available at the start of the event and utilized during the Major Eevent?
- ~~4.7.~~ Did the distributor issue any estimated times of restoration (ETR) to the public during the Major Event? If so, through what channels?
- ~~5.8.~~ Starting from time of the first outage, If the distributor did issue ETRs, at what date and time did the distributor issue its first ETR to the public?
- ~~6.9.~~ Did the distributor issue any updated ETRs to the public? If so, how many and at what points in dates and times were they issued?
- ~~7. What channels of communication did the distributor use to delivery ETRs to the public?~~

~~8.10.~~ Did the distributor inform customers about the options for contacting the distributor to receive more details about outage/restoration efforts? If so, please describe how this was achieved.

~~9.11.~~ How many times did the distributor issue press releases, hold press conferences or send information to customers through social media notifications? send information to customers through the media? (press releases, press conferences, social media notifications) If so, how many times did the distributor issue press releases, hold press conferences or send information to customers through social media notifications? What was the general context of this information?

~~10.~~ How many customers called into the distributor's phone lines during the duration of the event?

~~11.12.~~ \_\_\_\_\_ What percentage of ~~these~~ customer calls were dealt with satisfied by the distributor's IVR system (if available) versus a live representative?

~~12.~~ What percentage of these customer calls were answered by a live representative?

~~13.~~ Of the calls answered by a live representative, what percentage of the calls were the calls answered within 90 seconds.

~~14.~~ Was there any point in time when the phone lines were inaccessible? If so, what percentage of the total outage time were the phone lines inaccessible?

~~15.13.~~ \_\_\_\_\_ Did the distributor provide information about the Major eEvent on its web site? If so, how many times during the Major eEvent was the web site updated?

~~16.14.~~ \_\_\_\_\_ Was there any point in time when the web site was inaccessible? If so, what percentage of the total outage time was the web site inaccessible?

~~17.15.~~ \_\_\_\_\_ How many customers were interrupted during the Major eEvent? What percentage of the distributor's total customer base, did the interrupted customers represent?

16. How many hours did it take to restore 90% of the customers who were interrupted?

17. Was any distributed generation used to supply load during the Major Event.

18. Were there any outages associated with Loss of Supply during the Major Event? If so, please report on the duration and frequency of Loss of Supply Events.

19. Please explain the processes the distributor followed to undertake damage assessment. In responding to the Major Event, did the distributor utilize assistance through third party mutual assistance agreements?

20. Did the distributor run out of any needed equipment or materials during the event? If so, please describe the shortages.

**After the Event**

- ~~1. Did the distributor run out of any needed equipment or materials during the event? If so, please describe the shortages.~~
- ~~2.1. What steps, if any, are being taken to be prepared for or mitigate such Major eEvents in the future. (i.e. – staff training, process improvements, system upgrades.)~~
2. What lessons did the distributor learn in responding to the Major eEvent that will be useful in responding to the next Major Event?
3. Did the distributor survey its customers after the Major Event to determine the customer's opinions of how effective the distributor was in responding to the Major Event? If so, please describe the results.