

Electrical Distribution Safety

INTRODUCTION

In the interests of safety, ESA is requesting all LDCs participate in the program to provide ESA the information requested below, by the timelines set out in the table below. Please send responses to Utility.Regulations@electricalsafety.on.ca.

INFORMATION REQUESTED

Please supply the number of customers, in your service territory, serviced by the following configurations:

1. Transformers that have a solidly-grounded wye-connected secondary system and there does not exist a grounded neutral conductor between the transformer’s secondary neutral terminal and the customer’s service entrance equipment;
2. Transformers with a Wye-connected secondary feeding Delta-metered customers; **OR**
3. Delta-metered customers

ESA’s preference is to collect information from bullets #1 **or** #2, however due to timelines this may not be possible.

TIMELINES REQUESTED

LDC Size Chart	Timeline (Due Date)
LDCs with < 20,000 Total Customers	February 15, 2018
LDCs with 20,000 – 50,000 Total Customers	February 27, 2018
LDCs with 50,000 – 300,000 Total Customers	March 21, 2018
LDCs with >300,000 Total Customers	April 4, 2018

DETAILED INFORMATION

ESA will be using the collected information, to inform ESA regarding the size of the potential hazard posed by 3-phase distribution transformers that have a solidly-grounded wye-connected secondary system and there does not exist a grounded neutral conductor between the transformer’s secondary neutral terminal and the customer’s service entrance equipment. This configuration creates an undue hazard of fire and shock.

After collecting this information ESA will be issuing a second Flash Notice, requesting detailed information on 3-phase distribution transformers that have a solidly-grounded wye-connected secondary system and there does not exist a grounded neutral conductor between the transformer’s secondary neutral terminal and the customer’s service entrance equipment. The timelines for this future request will be informed by the information received under this request.

During this program, ESA will not use the data collected in order to assess compliance with Regulation 22/04. The information shall only be used to assess and mitigate the hazard. Installations not identified under this program, will be assessed for compliance with respect to Regulation 22/04.

If an LDC identifies that there are zero (0) customers with such a system in their service territory, they should inform ESA of this information so that we can track LDC participation in the program. If an LDC cannot meet the timelines please contact us at Utility.Regulations@electricalsafety.on.ca to discuss.

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ESA RECOMMENDS

1. When a customer is identified as having a 3-phase, 3-wire service attached to a 3-phase transformer with a wye-connected secondary and a solidly-grounded secondary neutral terminal, the Electrical Distributor should check on other customers attached to the same transformer. For example, removing the ground strap on the transformer may cause issues to an existing customer with a 4-wire service.
2. If the ground strap is removed, it is recommended notification / signage be installed to ensure that during future site visits that crews do not reattach.
3. Reviewing the distributor's standard design drawings and standard design specifications to ensure there is sufficient information present to avoid this undue hazard.
4. Reviewing with field staff information regarding this type of service connection and mitigation techniques that can be used.
5. Informing staff that receive Public Safety Concerns (PSCs) that ESA will be issuing Z7s to Inspectors during this program as information comes into ESA. However ESA will not be issuing PSCs to the LDC for each customer identified under this safety program.
6. If the LDC starts developing Corrective Action Plans they should ensure higher risk installations are consider as a priority.

ADDITIONAL INFORMATION

Information requests and follow-up may be directed to ESA at Utility.Regulations@ElectricalSafety.on.ca. For questions on this bulletin please be prepared to quote Bulletin "FN-01/18".