



Westario Power Inc.

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January 9, 2009

By FAX 519-364-6456
And email mdunlop@hanover.ca

Town of Hanover
341 –10th Street
Hanover, ON N4N 1P5
Attn: Mr. Mike Dunlop
CAO/Clerk
Re: Power Grid Voltage Reduction Test

Dear Mr. Dunlop

On Thursday January 22, 2009, the IESO will perform a voltage reduction test on the Hydro One transmission network.

The test will consist for two exercises:

1. A 3% voltage reduction, from 9:30 AM to 11:30 AM, and
2. A 5% voltage reduction, from 5:30 PM to 7:30 PM.

The Independent Electricity System Operator (IESO) is the agency responsible for regulating the transmission of electrical energy through the high-voltage transmission network in the Province of Ontario. The IESO has been mandated by the Provincial Government to perform this voltage reduction test. Please see the attachment.

This voltage reduction test will apply to Westario Power customers, and all other electricity customers in the province.

We suggest that you review your equipment needs, and take precautions to protect critical loads that may be affected. We also request that you review your emergency plans and contact other critical load customers, such as hospitals, and nursing homes that will be affected.

For you information, we have also notified the Blue Water School Board, and the Bruce-Grey Catholic School Board.

If you have any questions, or concerns, please contact me at 1-519-507-6666, Ext. 231.

Sincerely,

Patrick Protomanni, P. Eng.
Manager, System Reliability
Tel: 519-507-6937 Ext 231.

C: JH - circulate to staff

VOLTAGE REDUCTION QUESTIONS & ANSWERS

What is a voltage reduction and why does the IESO implement voltage reductions?

A voltage reduction is implemented by the Independent Electricity System Operator (IESO) as an emergency control action to manage grid reliability when there is not enough electricity available to meet demand. This action is among the final steps taken before having to implement rotating blackouts.

What is the impact of a voltage reduction on consumers?

It is expected that the vast majority of consumers will not notice voltage reductions as they are still expected to be within the industry standards specified for electrical equipment used by residential and commercial consumers. However, sensitive equipment may be affected by a wide variety of causes such as local distribution conditions and consumer equipment configurations.

Can I request an exclusion from a voltage reduction?

Voltage reductions are implemented at certain high voltage transformers which serve large numbers of consumers. Excluding one consumer usually means excluding all consumers connected through the shared transformer and this can severely reduce the effectiveness of voltage reductions as an emergency control action. Local distribution companies (LDCs), under the OEB Distribution System Code¹ must also ensure their systems can supply adequate voltage to consumers including ensuring that an Ontario-wide five per cent voltage reduction remains within that range to all consumers². Consumers are expected to manage their equipment and operations to withstand a five per cent voltage reduction. For example, equipment nominally rated at 120V AC should be able to operate within voltage ranges of 108-125 volts under normal conditions, and 104-127 volts under extreme conditions.

Province-wide implementation of a five per cent voltage reduction reduces power demand by about 500 MW, and any decline in this amount through exclusions increases the possibility of rotating blackouts.

Consumers may request a temporary exclusion from voltage reductions through their LDC to address public health and safety concerns or prevent equipment damage. Many LDCs need to coordinate exclusion requests with Hydro One which controls the majority of high voltage transformers in Ontario. It is emphasized that any exclusion would be temporary, until LDCs or consumers resolve the problem locally.

The IESO needs to be advised, by Hydro One and certain LDCs who have voltage control facilities through the Outage Management Process, of any temporary exclusion requests. The IESO will continue to monitor any impact on the effectiveness of voltage reductions as an emergency control action.

¹ Ref. OEB Distribution System Code, Section 4.1.2 and CSA Standard CAN-3-C235-83 Preferred Voltage Levels for AC Systems, Sections 4 and 5.

² Ref. OEB Distribution System Code, Section 4.1.3.