

# Emergency Generator Assessment Report

## Executive Summary

The Emergency Generator Assessment is updated annually to reflect equipment/operational modifications that occurred at specific sites with generators and meet the documentation requirements set out by the Ministry of Environmental, Conservation and Parks (MECP) to Enbridge Gas Inc. operating as Union Gas (Union Gas) under the amended ECA Number 4459-BJGQQY.

The assessment was updated in accordance with the following applicable regulations and guidelines:

- Ontario Regulation 524/98 (Updated by Ontario Regulation 14/17) Environmental Compliance Approvals – Exemptions from Section 9 of the Act;
- Guideline A-10 “Procedure for Preparing an Emission Summary and Dispersion Modelling Report, March 2018, Version 4.1” (the Procedure);
- Guideline A-11 “Air Dispersion Modelling Guideline for Ontario, February 2017, Version 3.0” (ADMGO).

This update utilizes updated air screening methodology for natural gas-fired emergency generators. The air screening methodology includes an overview of exemption requirements and evaluation against a NO<sub>x</sub> emission threshold.

Detailed assessments using AERMOD were completed for all emergency generators that did not meet the screening requirements.

Emission rates that have been estimated in this report are for maximum operating scenarios as per O. Reg. 419/05 regulatory requirements. Due to the underlying assumptions used for this scenario, the emission rates cannot be realistically extrapolated to annual values and should not be used for such purposes.

All emergency generator assessments have resulted in the demonstration of compliance with all applicable air emission standards and limits.

**Table 1: Results**

Name	kW	<11kW	Assessment Location	% POI – Emergency Generator 1 hour (AERMOD, unless otherwise indicated)
28107002 - Lennox SMS	130	No	Gate Station Assessment	55%
28801001 - Cardinal TBS	12	No	Gate Station Assessment	55%
30201002 - Onion Lake Primary Station	21	No	Gate Station Assessment	8%
30201003 - Belrose TBS	25	No	Gate Station Assessment	93%
04D-602 - Mersea Gate Station	48	No	Gate Station Assessment	71%
12F-203 - Novacor (Corunna)	60	No	Gate Station Assessment	92%
12F-501 - Payne Kimball Station	7	Yes*	Gate Station Assessment	97%
14O-201 - London North Gate Station	48	No	Gate Station Assessment	33%
16W-606 - Kirkwall/Dominion	18	No	Gate Station Assessment	36%
17X-401/2 - Hamilton Gate Stations #1&2	100	No	Gate Station Assessment	85%
19S-601 – Waterloo Gate	13	No	Gate Station Assessment	34%
19Y-302 - Bronte Station	80	No	Gate Station Assessment	66%
03E-105 - County Rd 18	48	No	Gate Station Assessment	50%
28Q-601C - Epcor*	12	No	Gate Station Assessment	34%
03D-200 - Kingsville East	48	No	Gate Station Assessment	84%
15S-301 - Oxford Gate 491	20	No	Gate Station Assessment	85%
43201030 – Coniston Primary	20	No	DA in this report	18%
41901001 - Montith	13	No	DA in this report	14%
12F-208 - Payne Trans	14	No	DA in this report	86%
17V-302V - Kirkwall Valve	12.5	No	DA in this report	79%
05D-405V - Kingsville East Take Off	12	No	DA in this report	39%
07F-501 - Dover Transmission	14	No	DA in this report	44%
Belleville Office	175	No	Building Assessment	10%
Brantford Regional Office	300	No	Building Assessment	1%
Burlington Office	65x 2	No	Building Assessment	9%
Chatham - 555 Riverview Office	70	No	Building Assessment	70%
Chatham Corporate Office	400 x2	No	Building Assessment	55%
Dunnville Office	18	No	Building Assessment	42%
Hamilton Service Centre	300	No	Building Assessment	<1% (SCREEN3)
Kingston Office	55x 2	No	Building Assessment	3%
London Office	330	No	Building Assessment	47% (SCREEN3)
North Bay Service Centre	225	No	Building Assessment	60%
Simcoe Office	12.5	No	Building Assessment	98%
St. Thomas Office	7.5	Yes	Building Assessment	Screens Out per Protocol

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Stratford Office	9	Yes	Building Assessment	Screens Out per Protocol
Sudbury Office	40	No	Building Assessment	28%
Thunder Bay Service Centre	310	No	Building Assessment	37%
Timmins office	15	No	Building Assessment	59%
Waterloo Office	250	No	Building Assessment	58% (SCREEN3)
Windsor Office	150	No	Building Assessment	73%
Dawn - Vector	20	No	Dawn ESDM	Worst Case Scenario** = 41%
Dawn - EGAB	175	No	Dawn ESDM	
Dawn - EGAUX5	526	No	Dawn ESDM	
Dawn - EGAUX2	125 0	No	Dawn ESDM	
Lobo - EG1	250	No	Lobo ESDM	Worst Case Scenario** = 22%
Lobo - EG2	725	No	Lobo ESDM	
Lobo - EG3	725	No	Lobo ESDM	
Lobo - EG4	725	No	Lobo ESDM	
Lobo - EG5	250	No	Lobo ESDM	
Bright - EG2	675	No	Bright ESDM	Worst Case Scenario** = 38%
Bright - EG3	500	No	Bright ESDM	
Bright - EG4	725	No	Bright ESDM	
Bright - EG5	725	No	Bright ESDM	
Bright - EG6	725	No	Bright ESDM	
Parkway EG1	650	No	Parkway ESDM	Worst Case Scenario** = 13%
Parkway EG2	750	No	Parkway ESDM	Worst Case Scenario** = 29%
Parkway West - EG1	725	No	Parkway West ESDM	
Parkway West - EG2	725	No	Parkway West ESDM	
Parkway West - EG3	300	No	Parkway West ESDM	
Payne-Kimball Valve Station	25	No	2022 Update to the Emergency Generator Assessment Report	47%
Marten River CMS	20	No	2022 Update to the Emergency Generator Assessment Report	6%

\*Gate Stations with significant Boilers and Heaters must assess the emissions from the whole site; emergency generators must be included in the assessment and cannot be screened out.

\*\* Compressor Stations are assessed on a site wide basis based on an Operating Worst Case Scenario; emergency generators are included in the assessment.

## Document Control and Maintenance

For document control and maintenance purposes, the following table captures important information related to this document.

Category	Value
Owned by:	Environment Department
Review interval:	Annual

## Revision History

<b>Date</b>	<b>Summary of Changes</b>	<b>Prepared by:</b>	<b>Approved by:</b>
2019-12	Updated Emergency Generator Assessment Report	Luna Munro, Environmental Advisor	Peter Mussio, Technical Manager, Environment
2020-03	Updated with Windsor Office Emergency Generator	Luna Munro, Environmental Advisor	Peter Mussio, Technical Manager, Environment
2021-06	Updated with new EGs for Novacor, Oxford Gate 491, and Hamilton Gate 1&2	Luna Munro, Environmental Advisor	Peter Mussio, Technical Manager, Environment
2022-06	Updated with new EGs for Belleville Office, Coniston Primary, and Waterloo Gate	Luna Munro, Environmental Advisor	Peter Mussio, Technical Manager, Environment
2023-06	Updated with new EGs for Payne-Kimball Valve Station and Marten River CMS	Leo Sun, ORTECH Senior Project Manager	Rekha Patel, Advisor Environment