



DEFINITIONS:

"DG SYSTEM FUSED DISCONNECT" MEANS AN ELECTRICAL SAFETY AUTHORITY (ESA) APPROVED DEVICE WITH FACTORY INSTALLED OVER-CURRENT PROTECTION RATED AT EITHER 100% FULL-LOAD AMPS (FLA) OR 80% OF THE AVAILABLE FAULT AMPS OF THE CUSTOMER'S GENERATION OR ENERGY STORAGE EQUIPMENT, WHICHEVER IS GREATER; MOULDED CASE BREAKERS ARE NOT ACCEPTABLE. IT SHALL PROVIDE AN OBVIOUS VISIBLE OPEN POINT. THIS DEVICE IS USED TO ISOLATE THE CUSTOMER'S DISTRIBUTED GENERATION (DG) EQUIPMENT, OR ENERGY RESOURCE FACILITY (ERF) EQUIPMENT, FROM THE UTILITY DISTRIBUTION SYSTEM.

"DG SOURCE FUSED DISCONNECT" MEANS AN ELECTRICAL SAFETY AUTHORITY (ESA) APPROVED DEVICE WITH FACTORY INSTALLED OVER-CURRENT PROTECTION RATED AT EITHER 100% FULL-LOAD AMPS (FLA) OR 80% OF THE AVAILABLE FAULT AMPS FROM THE CUSTOMER'S GENERATION OR ENERGY STORAGE EQUIPMENT, WHICHEVER IS GREATER; MOULDED CASE BREAKERS ARE NOT ACCEPTABLE. IT SHALL PROVIDE AN OBVIOUS VISIBLE OPEN POINT. THIS DEVICE IS USED TO ISOLATE THE CUSTOMER'S DISTRIBUTION GENERATION (DG) EQUIPMENT, OR ENERGY RESOURCE FACILITY (ERF) EQUIPMENT, FROM THE EQUIPMENT THAT IT SUPPLIES.

NOTES:

- A. FOR METER EQUIPMENT INSTALLATION REQUIREMENTS, REFER TO HYDRO OTTAWA REVENUE METERING SPECIFICATION GCS0008.
- B. THE NEUTRAL PROVIDES A ZERO REFERENCE POTENTIAL FOR THE VOLTAGE TRANSFORMERS AND RUNS FROM THE SWITCH TO THE INSTRUMENT TRANSFORMER CABINET. NEUTRAL CONDUCTOR SHALL BE TERMINATED AT FIRST CUSTOMER OWNED DEVICE.
- C. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED.
- D. MINIMUM OF 1500 [5'] OF CLEARANCE IN FRONT OF ALL METERING EQUIPMENT REQUIRED.
- E. DG SOURCE FUSED DISCONNECT SHALL HAVE FACTORY INSTALLED OVER-CURRENT PROTECTION AS PER HYDRO OTTAWA SPECIFICATION GCS0008.
- F. THE PROPOSED INSTALLATION SHALL COMPLY WITH THE ONTARIO ELECTRICAL SAFETY CODE (OESC) AND IS SUBJECT TO ELECTRICAL SAFETY AUTHORITY (ESA) INSPECTION AND APPROVAL.
- G. TO ENERGIZE THE DISTRIBUTED GENERATION (DG) SERVICE, HYDRO OTTAWA REQUIRES:
 - i. NOTIFICATION AND/OR COPY OF THE ESA CONNECTION AUTHORIZATION CERTIFICATE.
 - ii. POSTING OF A LAMACOID PLATED ELECTRICAL SINGLE LINE DRAWING (SLD) AT THE DG SYSTEM FUSED DISCONNECT SWITCH. THE SLD MUST BE PLAINLY MARKED IDENTIFYING SWITCHING ARRANGEMENTS, THE DISCONNECT LOCATIONS, AND THE TYPE AND NAMEPLATE RATING OF THE DISTRIBUTED GENERATOR.
 - iii. POSTING OF A LAMACOID PLATED LABEL AT THE DG SOURCE DISCONNECT SWITCH INDICATING THE GENERATOR:
 - (a) RATED OPERATING CURRENT AND VOLTAGE.
 - (b) RATED OPEN CIRCUIT VOLTAGE.
 - (c) RATED SHORT CIRCUIT CURRENT. THE RATING IS BASED ON THE GENERATION FACILITY NAMEPLATE RATING. HOWEVER, FOR INVERTER BASED SYSTEMS, INDICATE THE RATING OF THE GENERATION SOURCE ARRAY AND INVERTER.
- H. THE 'DG SYSTEM FUSED DISCONNECT' AND 'DG SOURCE FUSED DISCONNECT' SWITCHES SHALL BE EQUIPPED WITH AT LEAST:
 - i. COVER/DOOR INTERLOCK MECHANISM PREVENTING OPENING OF THE COVER WITH THE DISCONNECT SWITCH IN THE 'ON' POSITION.
 - ii. PAD-LOCKING PROVISION FOR THE SWITCH HANDLE IN THE 'OFF' POSITION.
 - iii. PAD-LOCKING PROVISION FOR THE COVER USABLE BY HYDRO OTTAWA TO PLACE A TAMPER PREVENTION SEAL.
- I. PLYWOOD MOUNTING SURFACE PAINTED WITH GRAY FIRE RETARDANT PAINT EXCLUSIVE FOR HYDRO OTTAWA METERING EQUIPMENT:
 - i. FOR 400A SERVICES MIN. OF 900 x 900 x 16
 - ii. FOR 36" x 36" x 5/8" OR 900 x 900 x 19
 - iii. FOR 600A SERVICES MIN. OF 1200 x 1200 x 16
 - iv. FOR 48" x 48" x 5/8" OR 1200 x 1200 x 19
 - v. FOR 36" x 36" x 3/4"
 - vi. FOR 48" x 48" x 3/4"
- J. LOSS OF PHASE (LOP) DETECTION DEVICES, IF REQUIRED SHALL BE CONNECTED BESIDE THE DG SOURCE FUSED DISCONNECT SWITCH.
- K. FOR PARALLEL CONNECTIONS FOR DG OR ERF SERVICES, HYDRO OTTAWA WILL ACCEPT THE ADDITION OF MULTI-BARREL MECHANICAL LUGS WHERE PRACTICABLE. TERMINATIONS OF TWO CONDUCTORS IN THE SAME LUG BARREL SHALL NOT BE PERMITTED. REFER TO HYDRO OTTAWA SPECIFICATION ECG0015 FOR MORE INFORMATION.

REVISIONS		PREP	CHKD	APPD
REV: 1	DATE: 2014-11-17	MM	SMC	CSM
CHANGE: MODERN ENCLOSURE FOR 600A SERVICES.				
REV: 2	DATE: 2016-01-13	JD	SMC	CSM
CHANGE: UPDATE NOTES				
REV: 3	DATE: 2016-03-24	GM	SMC	
CHANGE: UPDATE NOTES				

HydroOttawa
www.hydroottawa.com

PREP: M. MALONEY
CHKD: S. McNALLY
APPD: C. MALONE
DATE: 2014-09-03
SCALE: N.T.S. @ ANSIB

TITLE: ENGINEERING SPECIFICATION
ERF 120V/208 OR 347V/600Y 3PH 4W
400A TO 600A SEC. VOLTAGE SERVICE
CONSTRUCTION AND WIRING DETAIL

NO: MCS0079

REV: 3