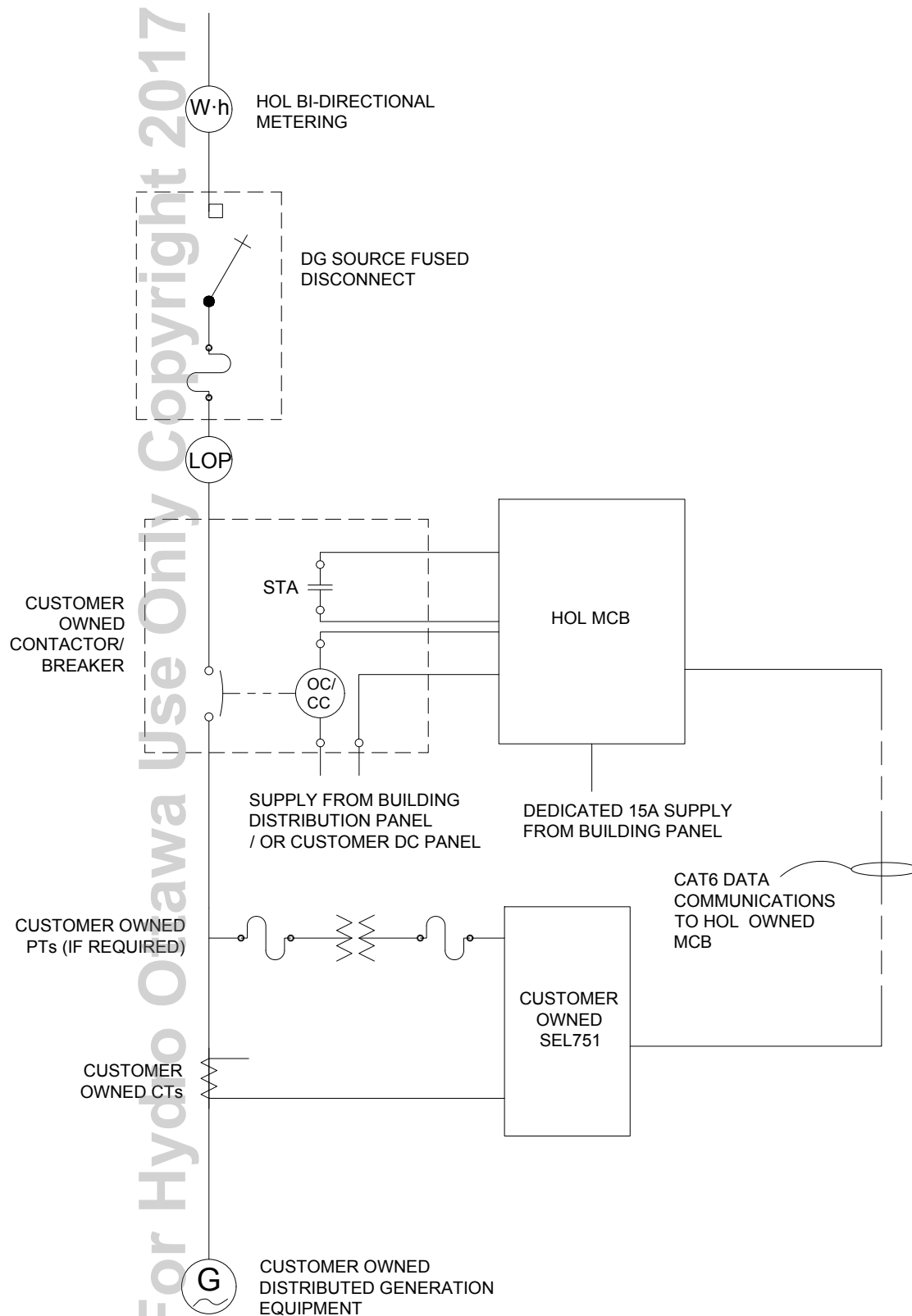
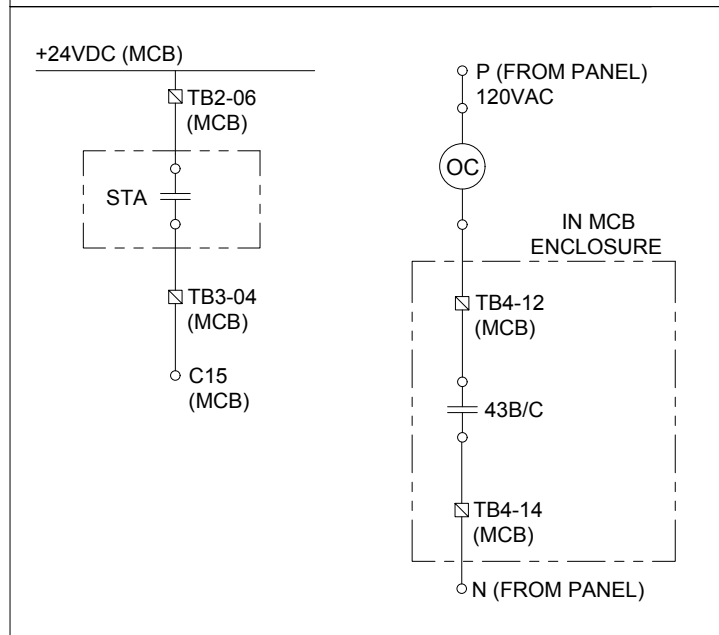


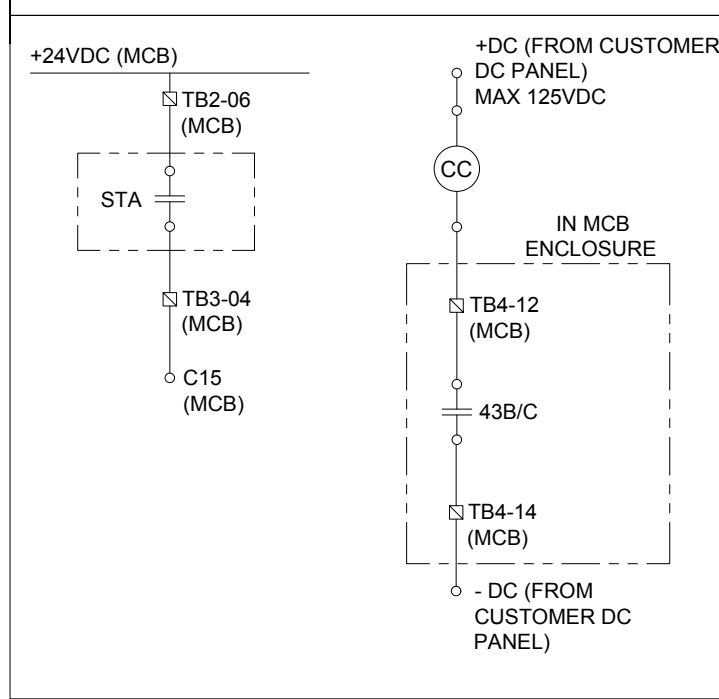
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**CUSTOMER CONTROL WIRING TO MCB - CONTACTOR INTERCONNECTION**



**CUSTOMER CONTROL WIRING TO MCB - BREAKER INTERCONNECTION**



**NOTES:**

- A. THE PROPOSED INSTALLATION SHALL COMPLY WITH HYDRO OTTAWA LIMITED (HOL) ENGINEERING STANDARDS AND THE ONTARIO ELECTRICAL SAFETY CODE.
- B. MCB ENCLOSURE SIZE TO BE 914 mm x 610 mm x 406 mm [36"H x 24"W x 16"D].
- C. 1 METRE OF WORKING CLEARANCE IS REQUIRED IN FRONT OF THE ENCLOSURE
- D. MCB TO BE PLACED AT A LOCATION WHERE DATA CONNECTION TO CUSTOMER OWNED SEL751 DOES NOT EXCEED 75 METRES [ 246' ] IN LENGTH.
- E. CUSTOMER OWNED SEL751 RELAY TO INCLUDE THE FOLLOWING FEATURES:
  - TIA 232 REAR COMMUNICATIONS PORT CONFIGURED FOR 9600 8N1
  - RJ45 REAR COMMUNICATIONS PORT
  - 3 PHASE VOLTAGE INPUT FOR VOLTAGE MONITORING
  - 3 PHASE CURRENT INPUT
  - IEC61850 COMMUNICATIONS PROTOCOL
  - GOOSE POINT MAPPING: 3PH KW, VA, VB, VC, IA, IB, IC
- F. IF A CONTACTOR IS USED FOR INTERFACE IT SHALL INCLUDE THE FOLLOWING FEATURES:
  - 120 VAC OPERATING CIRCUIT (OC) POWERED FROM MAIN SERVICE ENTRANCE PANEL FOR OPERATION DURING GENERATION OUTAGES.
  - DRY STATUS CONTACT (STA) TO BE CONNECTED TO MCB FOR HOL SCADA INDICATION
  - OPERATING CIRCUIT (OC) TO BE DESIGNED IN SUCH A WAY THAT CLOSING OF THE BLOCK-CLOSE SWITCH MUST NOT CAUSE THE CONTACTOR TO CLOSE. OPENING OF BLOCK-CLOSE MUST NOT CAUSE THE CONTACTOR TO OPEN.
- G. IF BREAKER IS USED FOR INTERFACE IT SHALL INCLUDE THE FOLLOWING FEATURES:
  - DC TRIP COIL
  - DC CLOSE COIL
  - BLOCK-CLOSE SWITCH TO BE WIRED IN SERIES WITH DC OPERATED CLOSE COIL (CC). THE CLOSE COIL (CC) TO BE DESIGNED SUCH THAT CLOSING OF THE BLOCK-CLOSE SWITCH MUST NOT CAUSE THE BREAKER TO CLOSE. OPENING OF BLOCK-CLOSE SWITCH MUST NOT CAUSE THE BREAKER TO OPEN.
- H. MCB SHALL BE CONNECTED TO A DEDICATED 15 A 120 VAC SUPPLY FROM MAIN SERVICE ENTRANCE PANEL, UPSTREAM FROM GENERATION CONNECTION. THE SUPPLY MUST REMAIN POWERED WHILE GENERATION IS OUT OF SERVICE.
- I. CUSTOMER OWNED CURRENT TRANSFORMERS ARE REQUIRED FOR CONNECTION TO CUSTOMER OWNED SEL751.
- J. CUSTOMER OWNED POTENTIAL TRANSFORMERS ARE REQUIRED FOR VOLTAGES GREATER THAN 120/208 V.
- K. 14 AWG TECK CABLING WITH AT LEAST FOUR CONDUCTORS IS REQUIRED FOR CONNECTION OF HARD WIRED POINTS TO MCB. MORE CONDUCTORS MAY BE REQUIRED FOR ADDITIONAL STATUS INFORMATION
- L. ALL WIRING BETWEEN CUSTOMER EQUIPMENT AND MCB TO BE SUPPLIED AND INSTALLED BY CUSTOMER. CONNECTIONS INSIDE MCB UNIT TO BE COMPLETED BY HOL CREWS.
- M. CUSTOMER TO INSTALL HOL PROVIDED ANTENNA AT A LOCATION WHERE COMMUNICATION IS AVAILABLE.

LAST SAVED: 2017-12-12 10:56 AM

REVISIONS			PREP	CHKD	APPD	TITLE	
REV: CHANGE:	DATE:					 www.HYDROOTTAWA.COM	ENGINEERING SPECIFICATION
REV: CHANGE:	DATE:						HOL MONITORING AND CONTROL BOX (MCB) INSTALLATION
REV: CHANGE:	DATE:						CONSTRUCTION DETAIL
REV: CHANGE:	DATE:					PREP: E. VEH CHKD: B. HARRINGTON APPD: B. HAZLETT P.Eng DATE: 2017-12-11 SCALE: N.T.S. @ ANSI B	NO: <b>GCS0043</b> 1 OF 1 REV: 0