

3.8 Generation Metering

This section defines the metering requirements for embedded generators connected to Enova Power Corp (EPC)'s distribution system. This section applies to the following types of generation:

- i. Net metering
- ii. Load displacement generators

- 3.8.2 Each distributed generation service with the exception of Micro Generators (<10kW Capacity) shall be reviewed thoroughly and on an individual basis. The Customer and/or their agent shall submit to EPC all required switchgear and electrical single line drawings in a timely manner to allow for EPC 's reviews and comments. The metering installation shall be installed in accordance with the Connection Impact Assessment, Connection Cost Agreement, Distribution Connection Agreement, and Conditions of Service.
- 3.8.3 The Customer should contact EPC Engineering early in the design stage to begin the review as additional requirements for distribution system upgrades, remote Supervisory Control and Data Acquisition (SCADA) monitoring and transfer trip may apply.

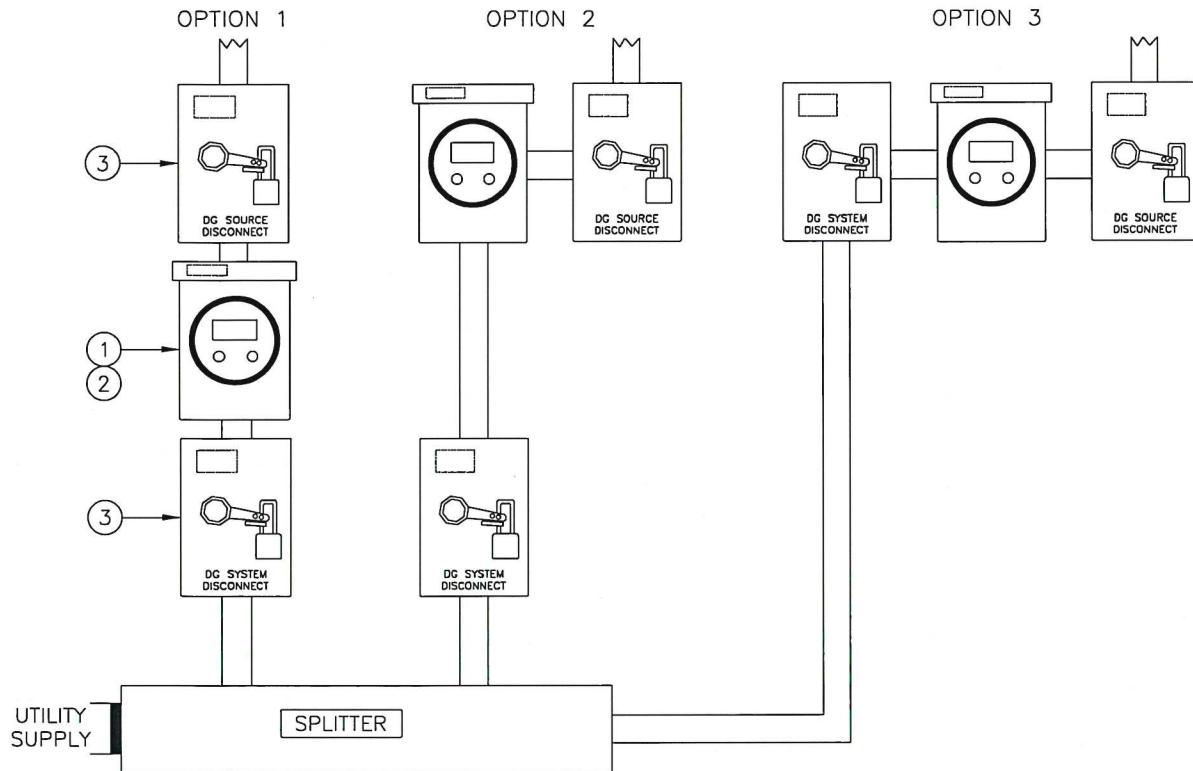
Net Metering

- 3.8.4 EPC will install, at the Customers' cost, a bi-directional meter at the service entrance to measure energy in the delivered and received directions.
- 3.8.5 Net Metered services that have a total capacity greater than 50kW shall supply a second bi-directional meter at the generator output. The generator meter will be used for power quality monitoring and a future capacity reserve charge (or equivalent) once approved by the Ontario Energy Board. Refer to drawing "MS-50A, MS-50B or MS-50C" for equipment requirements and layout details.

Load Displacement Generators:

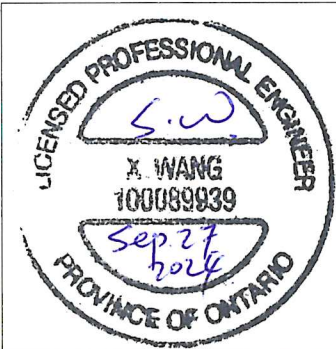
- 3.8.6 Load displacement generators that have a total nameplate capacity greater than 50kW shall supply a second meter at the generator output. The generator meter will be used for power quality monitoring and a future capacity reserve charge (or equivalent) if approved by the Ontario Energy Board. Refer to drawing "MS-50A, MS-50B, and MS-50C" for equipment requirements and layout details.
- 3.8.7 Load displacement generators greater than 1MW may be subject to Hydro One gross load billing charges and IESO meter registration. Projects above the 1MW threshold are reviewed on an individual basis and may be subject to additional standards and requirements.

Standard Number	Standard Title
MS-50A	Meter Base – Standard Mounting Layout For Three Phase, Distributed Generation Secondary Services, 120/208V or 347/600V Below 225A
MS-50B	Meter Cabinet – Standard Mounting Layout For Distributed Generation Secondary Services, 120/208V or 347/600V, 225-800 Amps Without Switchgear, With Scada
MS-50C	Meter Cabinet – Standard Mounting Layout For Distributed Generation Secondary Services, 120/208V or 347/600V, 225-800 Amps Without Switchgear, Without Scada



- ① CUSTOMER/CONTRACTOR TO SUPPLY AND INSTALL EPC APPROVED 7-JAW METER BASE COMPLETE WITH ISOLATED NEUTRAL BLOCK. METER BASE TO BE LOCATED ON GROUND LEVEL FLOOR AND MOUNTED AT 1.5m (5'0") ± 150mm (6") FROM FINISHED FLOOR ELEVATION TO CENTER OF METER. SEE APPENDIX B SELECTION TABLE FOR APPROVED METER BASES
- ② NEUTRAL CONDUCTOR MUST BE BROUGHT INTO AND TERMINATED IN THE METER BASE
- ③ DG SOURCE AND DG SYSTEM DISCONNECT SWITCHES MUST BE LOCKABLE AND ARE TO BE LOCATED INSIDE THE SAME ELECTRICAL ROOM AND VISIBLE FROM GENERATION METER

- MAINTAIN A MINIMUM 1m (39") CLEARANCE IN FRONT OF METER BASE(S) AND INSTRUMENT TRANSFORMER COMPARTMENT(S)

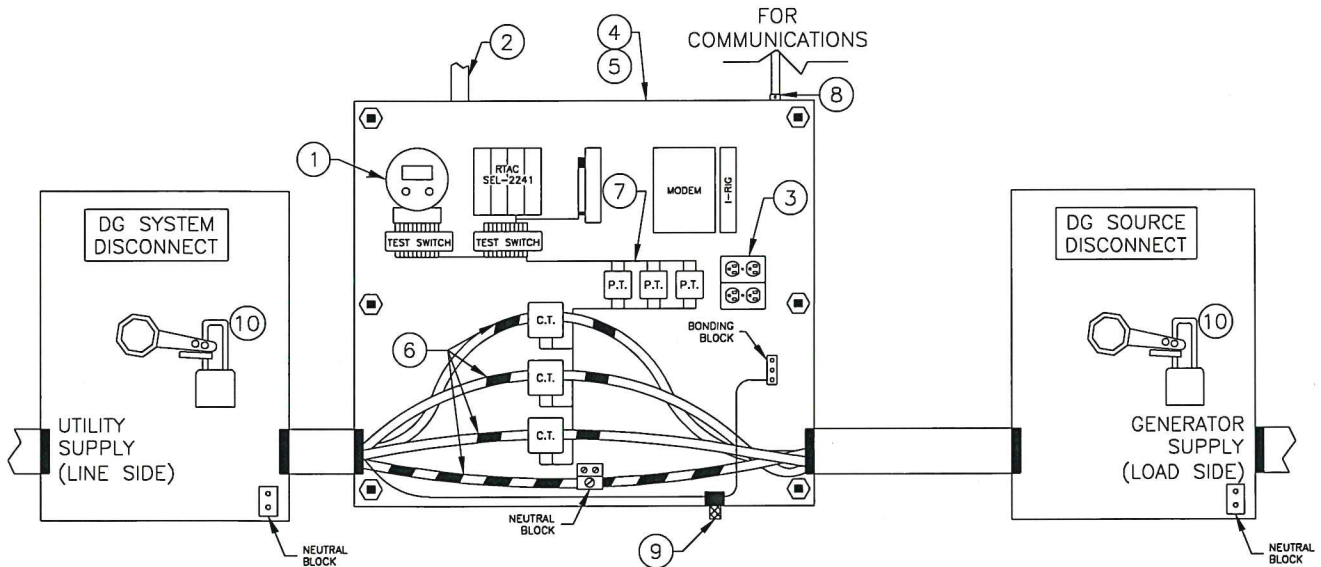

Certificate of Approval

The installation work covered by this document meets the safety requirements of Section 4 of Regulation 22/04

 Shaun Wang Sep 27 2024
 Date

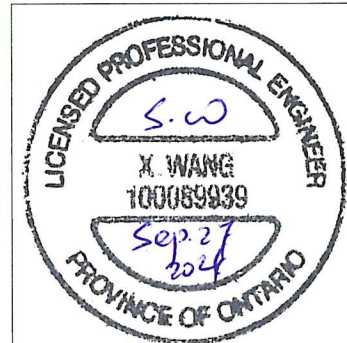
 Signature & Professional Designation

REV.	DESCRIPTION	DATE	INITIALS
1	UPDATED TO NEW DRAFTING STANDARD	03/23/2021	BD
2	ENOVA STANDARDS UPDATE STANDARD	02/22/2024	RO
3	ENOVA STANDARDS UPDATE	07/26/2024	BD



- ① METER BASE ADAPTER TO BE PROVIDED BY EPC.
- ② 63.5mm (2-1/2") CONTINUOUS CONDUIT, COMPLETE WITH PULL ROPE, IN A STRAIGHT LINE FROM THE METERING CABINET TO THE ROOF FOR FUTURE SCADA ANTENNA.
- ③ GROUNDED 2 GANG 120VAC DUPLEX RECEPTACLES – FED FROM DEDICATED 15A SINGLE-POLE BREAKER, SUPPLIED & INSTALLED BY CUSTOMER'S CONTRACTOR
- ④ METER CABINET DIMENSIONS 1200mm X 1200mm X 300mm (48"x48"x12") COMPLETE WITH REMOVABLE BACK PLATE AND 2 SIDE-HINGED CENTER OPENING DOORS SUPPLIED BY CUSTOMER. CABINET TO BE MOUNTED AT A HEIGHT OF 1.83m (6') ± 50mm (2") FROM FINISHED FLOOR ELEVATION TO TOP OF CABINET. STAINLESS STEEL NEMA 3R CABINET REQUIRED FOR OUTDOOR INSTALLATIONS
- ⑤ METER CABINET MUST BE SECURELY FASTENED TO SUPPORTING WALL WITH AN ADEQUATE NUMBER OF PROPERLY SIZED FASTENERS TO SUPPORT A FULLY LOADED CABINET AND BACK PLATE ASSEMBLY WEIGHT OF 90KG (200LBS)
- ⑥ PHASE MARKING TAPE – RED, YELLOW, BLUE, WHITE (TOP TO BOTTOM)
- ⑦ PT'S ONLY REQUIRED FOR 347/600V SERVICES
- ⑧ CUSTOMER CONTRACTOR TO INSTALL 30mm (1-1/4") EMT OR PVC CONDUIT FROM METER CABINET TO A LOCKABLE 8"x8"x4" NEMA JUNCTION BOX LOCATED 1.5m (5.0") ± 150mm (6") FROM FINISHED GRADE IN AN AREA WITH GOOD CELL RECEPTION FOR COMMUNICATIONS. THIS LOCATION WILL ALSO REQUIRE A DEDICATED 120V RECEPTACLE. CONSULT WITH EPC METER DEPARTMENT PRIOR TO INSTALLATION.
- ⑨ BONDING LUG AS PER DRAWING MS-2
- ⑩ DG SOURCE AND DG SYSTEM DISCONNECT SWITCHES MUST BE LOCKABLE AND ARE TO BE LOCATED INSIDE THE SAME ELECTRICAL ROOM AND VISIBLE FROM THE GENERATION METER

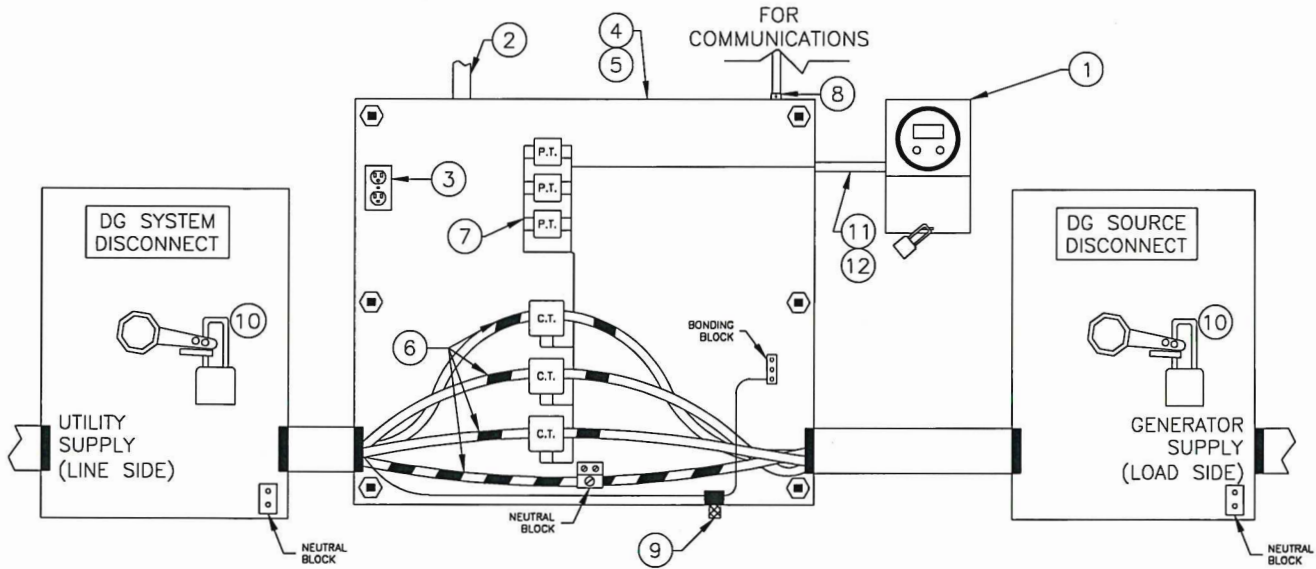
- NO SERVICE CONDUCTORS PERMITTED ABOVE CT'S
- ALL METERING CT'S AND PT'S TO BE LOCATED ON LOAD SIDE OF MAIN DISCONNECT
- MAINTAIN A MINIMUM 1m (39") CLEARANCE IN FRONT OF METER BASE(S) AND INSTRUMENT TRANSFORMER COMPARTMENT(S)



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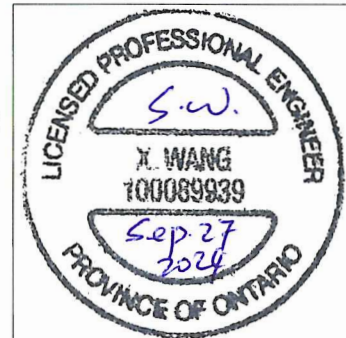
Shawn Wang *Signature* Sep 27 2024 *Date*
 P. Eng. *Signature*
 Signature & Professional Designation

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1	UPDATED TO NEW DRAFTING STANDARD	03/23/2021	BD
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3	ENOVA STANDARDS UPDATE	07/09/2024	BD



- ① 13-JAW METER BASE. METER BASE TO BE LOCATED ON GROUND LEVEL FLOOR AND MOUNTED AT 1.5m (5'0") ± 150mm (6") FROM FINISHED FLOOR ELEVATION TO CENTER OF METER. SEE APPENDIX B SELECTION TABLE FOR APPROVED METER BASES.
- ② 63.5mm (2-1/2") CONTINUOUS CONDUIT, COMPLETE WITH PULL ROPE, IN A STRAIGHT LINE FROM THE METERING CABINET TO THE ROOF FOR FUTURE SCADA ANTENNA.
- ③ GROUNDED 120VAC DUPLEX RECEPTACLE - FED FROM DEDICATED 15A SINGLE-POLE BREAKER, SUPPLIED & INSTALLED BY CUSTOMER'S CONTRACTOR
- ④ METER CABINET DIMENSIONS 1200mm X 1200mm X 300mm (48"x48"x12") COMPLETE WITH REMOVABLE BACK PLATE AND 2 SIDE-HINGED CENTER OPENING DOORS SUPPLIED BY CUSTOMER. CABINET TO BE MOUNTED AT A HEIGHT OF 1.83m (6') ± 50mm (2") FROM FINISHED FLOOR ELEVATION TO TOP OF CABINET. STAINLESS STEEL NEMA 3R CABINET REQUIRED FOR OUTDOOR INSTALLATIONS
- ⑤ METER CABINET MUST BE SECURELY FASTENED TO SUPPORTING WALL WITH AN ADEQUATE NUMBER OF PROPERLY SIZED FASTENERS TO SUPPORT A FULLY LOADED CABINET AND BACK PLATE ASSEMBLY WEIGHT OF 90KG (200LBS)
- ⑥ PHASE MARKING TAPE - RED, YELLOW, BLUE, WHITE (TOP TO BOTTOM)
- ⑦ PT'S ONLY REQUIRED FOR 347/600V SERVICES
- ⑧ CUSTOMER CONTRACTOR TO INSTALL 30mm (1-1/4") EMT OR PVC CONDUIT FROM METER CABINET TO A LOCKABLE 8"x8"x4" NEMA JUNCTION BOX LOCATED 1.5m (5.0") ± 150mm (6") FROM FINISHED GRADE IN AN AREA WITH GOOD CELL RECEPTION FOR COMMUNICATIONS. THIS LOCATION WILL ALSO REQUIRE A DEDICATED 120V RECEPTACLE. CONSULT WITH EPC METER DEPARTMENT PRIOR TO INSTALLATION.
- ⑨ BONDING LUG AS PER DRAWING MS-2
- ⑩ DG SOURCE AND DG SYSTEM DISCONNECT SWITCHES MUST BE LOCKABLE AND ARE TO BE LOCATED INSIDE THE SAME ELECTRICAL ROOM AND VISIBLE FROM THE GENERATION METER
- ⑪ 30mm (1-1/4") EMT OR PVC CONDUIT MAXIMUM LENGTH 15m (50') OF CONDUIT-MUST BE CONTINUOUS FROM METER CABINET TO METER BASE
- ⑫ FUSING REQUIRED ON POTENTIAL CONDUCTORS IF CONDUCTOR LENGTH IS >3m

- NO SERVICE CONDUCTORS PERMITTED ABOVE CT'S
- ALL METERING CT'S AND PT'S TO BE LOCATED ON LOAD SIDE OF MAIN DISCONNECT
- MAINTAIN A MINIMUM 1m (39") CLEARANCE IN FRONT OF METER BASE(S) AND INSTRUMENT TRANSFORMER COMPARTMENT(S)



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Shawn Wang Sep 27 2024
 Date

[Signature] P. Eng.
 Signature & Professional Designation

REV.	DESCRIPTION	DATE	INITIALS
0	STANDARD CREATED	07/26/2024	BD

EPC Approved Meter Bases

Enova reserves the right to update this Appendix. Contact Enova for the most updated list prior to ordering.



DATE:
2025-11-07

SCALE:
NTS

REV.
5

DWG. NO.
APPENDIX B

TITLE: **EPC APPROVED METER BASES**

SINGLE POSITION METER BASE SELECTION TABLE

SERVICE VOLTAGE (PHASE/WIRE)	SERVICE AMPERAGE	SOCKET TYPE	ANSI FORM TYPE	APPROVED MODELS
120/240V (1PH 3W) UNDERGROUND SERVICE	<= 200A	4 JAW	FORM 2S	<u>MICROELECTRIC</u> : BS2-TCV, BS2-TV, BS2-TCVFA <u>HYDEL</u> : EK400R0, EK400T0 <u>EATON</u> : LM2, LU2
120/240V (1PH 3W) OVERHEAD SERVICE	<= 200A	4 JAW	FORM 2S	ANY 200A CSA APPROVED MODEL
120/240V (1PH 3W)	400A	5 JAW (NOTES 1,2)	FORM 3S	HYDEL - CT4 (CT SUPPLIED BY ENOVA) EATON - TCC5 (CT SUPPLIED BY ENOVA)
120/240V CENTRAL METERED SERVICE (1PH 3W)	<=600A	5 JAW (NOTES 1,2)	FORM 3S	<u>MICROELECTRIC</u> : CL5-V <u>HYDEL</u> : CTS409PW
120/208V NETWORK SERVICE (2PH 3W)	<=200A	5 JAW (NOTE 1)	FORM 12S	ANY CSA APPROVED MODEL
120/208V (3PH 4W)	<=200A	7 JAW	FORM 16S	ANY CSA APPROVED MODEL
347/600V (3PH 4W)	<=200A	7 JAW	FORM 16S	ANY CSA APPROVED MODEL
120/208V OR 347/600V (3PH 4W)	>200A	13 JAW	FORM 9S	<u>EATON</u> : TSU13 <u>HYDEL</u> : CTS130PW <u>MICROELECTRIC</u> : CT113

MULTI POSITION METER BASE SELECTION TABLE

SERVICE VOLTAGE (PHASE/WIRE)	SERVICE AMPERAGE	SOCKET TYPE	ANSI Form Type	APPROVED MODELS
120/240V (1PH 3W) UNDERGROUND SERVICE	<=200A PER POSITION	4 JAW (NOTES 3,4)	FORM 2S	<u>MICROELECTRIC</u> : BDA2-V <u>EATON</u> : 2K2, 3K2, 2K4, 3K4 <u>HYDEL</u> : HC22R, HC23R, HC42R, HC43R
120/240V (1PH 3W) OVERHEAD SERVICE	<=200A PER POSITION	4 JAW	FORM 2S	ANY CSA APPROVED MODEL

OESC REQUIRED ISOLATED NEUTRAL

AS PER THE LATEST REVISION OF ESA BULLETIN 10-15-*, SINGLE GANG METER BASES SHALL INCLUDE AN ISOLATED NEUTRAL TERMINAL BLOCK WHEN THE CONSUMER SERVICE IS GROUNDED AT THE SERVICE BOX.
METER BASE MODELS IN THIS TABLE SHALL BE ORDERED WITH THE APPROPRIATE SUFFIX OR KIT TO COMPLY WITH ALL OESC REQUIREMENTS.

- ① 5TH JAW REQUIRED IN THE 9'O'CLOCK POSITION.
- ② BY-PASS DEVICE REQUIRED ON LEFT SIDE JAWS.
- ③ MAXIMUM NUMBER OF METER BASE POSITIONS FOR AN UNDERGROUND SERVICE IS THREE.
- ④ ALL UNDERGROUND SERVICE MULTIPLE POSITION METER BASES REQUIRE A BLANK CONNECTION COMPARTMENT WITH PROVISION FOR AN EXTERNAL PADLOCK.

REV.	DESCRIPTION	DATE	INITIALS
1	APPENDIX B CREATED	03/24/2021	BD
2	ENOVA STANDARDS UPDATE STANDARD	02/22/2024	RO
3	ENOVA STANDARDS UPDATE STANDARD	09/16/2024	BD
4	ADD BS2-TCVFA TO 120/240V (1PH 3W) UNDERGROUND SERVICE	06/13/2025	BD
5	ADDED ISOLATED NEUTRAL NOTE	11/07/2025	BM