Net Metering Program

Sample single line diagram and checklist

The Net Metering Program application requires a single line diagram for projects that meet any of the following conditions:

- ○ Are greater than 27kW in size
- ○ Have instrument transformer revenue metering (services greater than 200 A)
- ○ Have battery storage or hybrid/micro-grid inverter
- ○ Have an induction or synchronous generator

A SAMPLE SINGLE LINE DIAGRAM IS SHOWN BELOW. PLEASE ENSURE THE FOLLOWING DETAILS ARE INCLUDED IN THE SINGLE LINE DIAGRAM YOU PROVIDE:

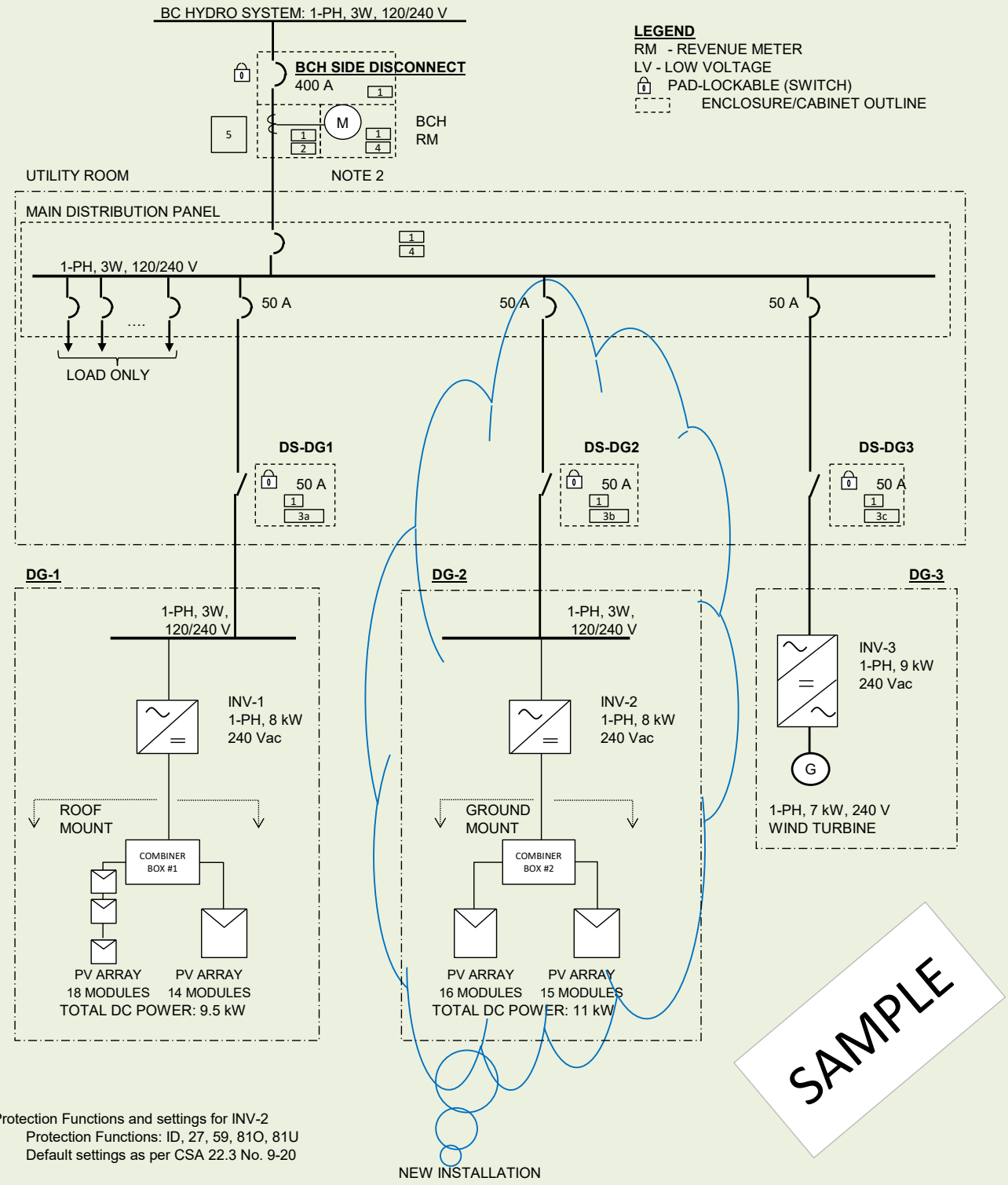
- ☐ General project information
  - ☐ Project title
  - ☐ Date
  - ☐ Revision number
  - ☐ Site address
  - ☐ Name of person or firm that prepared the drawing
- ☐ Differentiation between new and existing equipment (cloud or dividing line)
- ☐ All switches, breakers, and relays shall have distinct identifiers or names.
- ☐ Service Entrance equipment.
- ☐ BC Hydro revenue meter and, if applicable, revenue metering instrument transformers and E-Plus Meter.
- ☐ All electrical equipment between the Service Entrance and the generator (switches, breakers, cables, etc.)
- ☐ Location of Distributed Generator (DG) Disconnect Means
- ☐ Location of warning labels as required by Canadian Electrical Code (CEC) Part I
- ☐ Generator/inverter nameplate information and model numbers

Reminder

Installing an induction or synchronous generator? The following additional documentation is required:

- ○ Generator data sheet showing nameplate information
- ○ Description of Project Protection and Control System (logic block diagram or narrative).
- ○ Description of Protection failure scheme (see 4.2.3 of **DGTIR-100**).
- ○ Protection Single Line Diagram showing: protective relays, relay functions, and protection functions that trip mechanical equipment (such as a protection function failure scheme).
- ○ Description of the generator starting sequence (logic block diagram or narrative).

BC Hydro
Power smart



NOTES

1. PERMANENT LABELS (LAMACOID OR SIMILAR) ARE TO BE INSTALLED AS PER THE LABEL SCHEDULE (SEE PAGE 2, THIS DRAWING).
2. BCHYDRO SIDE DISCONNECT AND THE LOAD SIDE DG DISCONNECT DEVICE(S) ARE UTILITY ACCESSIBLE AND LOCKABLE WITH A 8MM (5/16") SHANK PADLOCK

Rev #	Date	By	Issue
1	*XX-XXX-XXXX*	*FL*	*Issued to BCH with NM DG application*

1-LINE DIAGRAM
INVERTER BASED
DISTRIBUTED GENERATORS DG-1, DG-2 AND DG-3
CONNECTED TO CUSTOMER FED FROM LV SERVICE

Location:	*1234 Abcd Street, Xyz Town, BC, X#X #X#*	
Dwg #:	*1234-1*	Date: *xx-xxx-xxxx*
Prepared by:	*First Name Last Name*	SHEET *1* OF 2

BCH Rev date: 22-Jul-2021

LABEL SCHEDULE

1 **TWO POWER SOURCE, PARALLEL SYSTEM**

2 **DG ISOLATION VIA DG SYSTEM DISCONNECTS DS-DG1, DS-DG2 AND DS-DG3 LOCATED IN THE UTILITY ROOM**

3a **DG SYSTEM DISCONNECT DS-DG1**

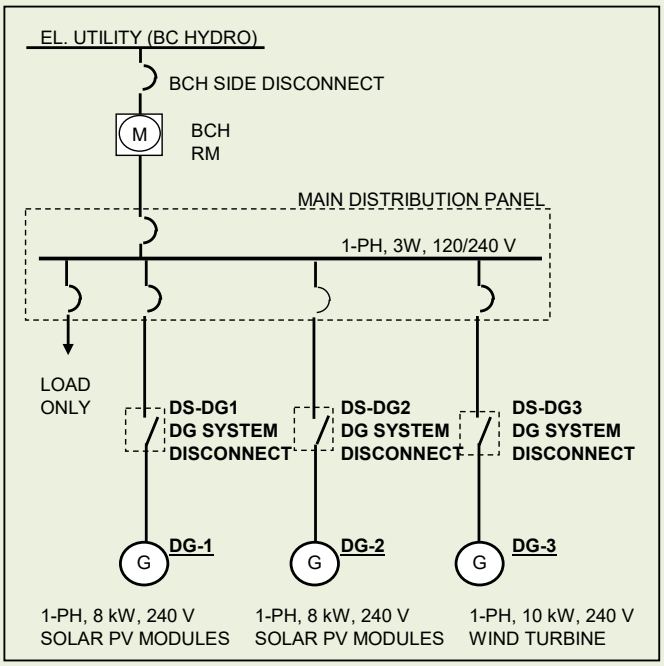
3b **DG SYSTEM DISCONNECT DS-DG2**

3c **DG SYSTEM DISCONNECT DS-DG3**

4 **ELECTRICAL POWER SOURCES IN SERVICE:**
1. EL. UTILITY (BC HYDRO)
2. ROOFTOP PV SOLAR GENERATOR (DG-1)
3. GROUND MOUNT PV SOLAR GENERATOR (DG-2)
4. WIND GENERATOR (DG-3)

SIMPLIFIED 1-LINE DIAGRAM

5



DISCLAIMER

This drawing (Sheet #1 and 2) is provided for illustration purpose only to assist NM applicants in preparing Single Line Diagram (SLD). It is applicant's responsibility to present the accurate information on SLD as per the intended installation. BC Hydro (BCH) assume no responsibility or, professional liability about the content of SLD in any way.

The SLD is meant for the use of NM application approval process with BCH only and BCH may use SLD as a record drawing for any future reference, and, in no way the BCH approved SLD will form the part of construction package.

In case of any conflict between the interconnection guideline, DGTIR100, and this sample drawing, the decision from BCH prevails.

This sample SLD or, DGTIR100 is not meant to capture, inspect or, supersed any CSA/applicable standard and/or Local Safety Authority (LSA) requirements, therefore, it is applicant's obligation to meet the rquirements of LSA.

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1-LINE DIAGRAM
INVERTER BASED
DISTRIBUTED GENERATORS DG-1, DG-2 AND DG-3
CONNECTED TO CUSTOMER FED FROM LV SERVICE

Location:	*1234 Abcd Street, Xyz Town, BC, X#X #X#*		
Dwg #:	*1234-1*	Date	*xx-xxx-xxxx*
Prepared by:	*First Name Last Name*	SHEET	*2* OF 2

BCH Rev date: 22-Jul-2021