Information Bulletin:
Release of Primary Guide Revision 4 (2025 Edition)

1.0 Items Covered

Requirements for Customer-Owned Primary Services Supplied at 4 kV to 35 kV – Primary Guide

2.0 Overview

This bulletin presents the latest revision 4 to the BC Hydro Primary Guide since the last edition (revision 3.1) issued in November 2021.

The 2025 edition of the Primary Guide contains various changes and improvements for the construction and installation of customer-owned primary services. The latest changes were made in response to input from customers, Technical Safety BC, and BC Hydro distribution designers and engineers.

The following is a list of substantive changes in the 2025 Primary Guide:

Page	Section	Change
7	2 Definitions	Added definition of authenticate. Definition of BC Hydro designer replaced with BC Hydro representative, which covers technologist or engineer in BC Hydro employ. Added definition of CLPU.
8	2 Definitions	Added definition of POR.
10	3.1 Design and Compliance	Revised CSA certification to certification agency accredited by the Standards Council of Canada. Updated note 4 to replace “copy of operating permit” with “certificate of inspection” from a licensed electrical contractor.
12	3.4 Point of Connection	Added that a standard BC Hydro 832 box is not acceptable as a demarcation structure.
12, 13	3.5 Revenue Metering	Added new content on BC Hydro requirements for clearances, location, and enclosure dimensions in accordance with section 6 of CSA C22.1. Added new content on transformers in the metering cubicle, and instrument transformer compartment openings.

Page	Section	Change
15, 16, 17	3.9.1 Open Transition Stand-by Generation	Added content on certification requirements for stand-by generators and transfer switches. Added content stating solid state switching devices operating in either open or closed transition are not acceptable. Added requirements for transfer switches. Added Figures 3-1 and 3-2 illustrating typical interlock schemes. Added requirement for essential electrical systems
19	3.12 Fire Protection	Expanded requirements for remote shunt trip.
23 and 24	5.2.1 Customer Submissions	Added content on when a submission is required. Added notes 12 and 13 on submission requirements by POR. Rearranged submission requirements under two new sections, 5.2.1.1 *Before Design Commences* and 5.2.1.2 *Before Design Completion and Approval*. Added a requirements checklist as part of customer submissions. Added requirements for emission studies and for arc flash hazard assessment and incident arc energy study for 347/600 V meter installations where the customer owns a transformer greater than 1500 kVA.
24	5.2.2 Electrical One Line Diagram	Added requirements for a hazard assessment study and industry standard symbols. Removed requirement for TSBC certificate of final inspection as this is covered in section 5.4. Removed previous note 12 and relocated to section 5.4 *High-Voltage Commissioning Report and Authorization for Connection*.
25	5.2.5 Primary Service Overhead Line Construction Details	Added that constructions details shall not reference BC Hydro standards except where required. Changed “self-supported” to “independently anchored” for first customer pole for improved clarity.
27 and 28	5.4 High-Voltage Commissioning Report and Authorization for Connection	Added detail to requirements for energization, including requirement from a certification agency for service switch, breaker, transformer production, and commissioning test reports, and a declaration using TSBC certificate of site inspection. Added that submission must be complete and incomplete submissions will be returned. Declaration of compatibility replaced with letter of compliance. Fault coordination study and copy of operating permit for high-voltage service removed. Added note 17 on owner damage to BC Hydro equipment.
31	6.2.3 Service Neutral Connections	Clarified that BC Hydro service neutral to be terminated at the neutral bus in the utility service entrance compartment in accordance with clause 6.9 of CSA C22.2 No. 0.19.
31	6.2.5 Maximum Connected Transformer Size and Limitations	Added requirements for mitigating high transformer inrush current and cold load pickup.

Page	Section	Change
32 and 33	7.2 Customer Scope of Supply for Overhead Service Connections	Added a variance shall be obtained from TSBC and submitted to BC Hydro representative to demonstrate AHJ acceptance where a utility type recloser is planned. Added customer option to install 9 kV surge arrester on 12 kV supply. Added grounding mats are exempt from grounding reports.
35	7.4 Customer Scope of Supply for Indoor Primary Service Vaults	Added customer option to install 9 kV surge arrester on 12 kV supply, and clarified who supplies the equipment.
35	7.5 Customer Scope of Supply for Outdoor Primary Service Kiosks	Added customer option to install 9 kV surge arrester on 12 kV supply.
36	7.6 Customer Scope of Supply for Primary Revenue Metering Kiosks	Added customer option to install 9 kV surge arrester on 12 kV supply.
40	8.2.3 Primary Service Ducts	Added content on the use metal conduit as primary service duct and its acceptance to BC Hydro based on acceptance by local AHJ.
41 and 42	8.3.3 Cable Pull Pit	Expanded description of minimum pull pit length. Updated cover plate weights. Added minimum angle for hinged covers.
42	8.3.5 Remote Shunt Trip	Added clarification for building and jointly-operated customer primary service vault.
43	8.4 Outdoor Primary Service Kiosks	Replaced CSA approved with approval from certification agency accredited by the Standards Council of Canada
46	9.1 Primary Services Switchboard Construction General	Replaced CSA certification with approval from certification agency accredited by the Standards Council of Canada. Added main protection relays used on overhead and underground incoming supply may receive power downstream of the metering supply point.
48	9.1.7 Additional Safety Requirements for Service Cable Compartments	Expanded table of acceptable ground ball studs.
50	9.1.9 Dead-Front Switchgear	Changed Vista model 211 SF_6-insulated switchgear to acceptable for indoor and outdoor applications. Replaced CSA certified with approval from certification agency accredited by the Standards Council of Canada.

Page	Section	Change
54	10.1.4 Interrupting Rating and Minimum Time Margins	Revised table of protective devices minimum separation. Revised table note 1 to address time margins that cannot be achieved due to high fault current and remedies that may be considered by the customer to achieve acceptable coordination. Added note 4 on reduced margin.
55	10.2.1 Current Transformers	Simplified description of what side of the current breaker the current transformer can be located. Added requirement barring customers from installing PTs and CTs in the cable entrance compartment.
55	10.2.2 Relays	Added overcurrent relays may be a single microprocessor based multi-function design. Changed definition of instantaneous from below three cycles to below two cycles. Added approval requirements for simultaneous clearing, between the customer's instantaneous element and BC Hydro's protection system, at high fault levels. Added content on considering load growth and cold load pickup.
60	Appendix 1.A Electrical Schematics	Added alternative configuration to PG A1-02 *One Line Diagram Single Radial Supply Typical for O/H Supply Service*, fuse protection with secondary revenue metering.
63	Appendix 1.D Protection Coordination	Updated PG D1-01 *Sample Protection Curves Customer Services and BC Hydro* page 1 of 2.
70	Appendix 2 Reference Documents	Revised title to Reference Documents and removed ES-64-C-03.06, ES43 J7-01, ES43 J7-02, ES43 R3-05, ES43 R3-11, TSBC HV2018.02 High Voltage Checklist, and BC Hydro Inspection and Maintenance Standards dated Feb 2000 (now covered in ES-64-C-03.05).
71	Appendix 2 Reference Documents	Updated *Primary Service Connections* flowchart.
72 to 74	Appendix 2 Reference Documents	Updated form *Statement to BC Hydro Regarding Primary Voltage Service Entrance Equipment*.
77 and 78	Appendix 2 Reference Documents	Added *Checklist of Requirements for Customer-Owned Primary Services Supplied at 4 kV to 35 k (Primary Guide)*.
82	Appendix 3 Photographs	Removed Figure A3-7 *Customer-owned recloser and BC Hydro primary revenue metering* as the service entrance doesn't meet the requirements in the Primary Guide.

3.0 Action

The effective date for the 2025 edition of the Primary Guide (revision 4) is June 30, 2025. New applications for primary service connections after June 30, 2025, shall meet the BC Hydro

requirements contained in the 2025 Primary Guide. New applications prior to June 30, 2025, may choose to comply with the 2025 Primary Guide.

Approved projects and projects pending design and construction of new customer-owned primary service installations already in progress may comply with the requirements of the 2021 Primary Guide (revision 3.1).

4.0 Contact

Customer and Customer Representatives

Please direct questions and concerns to your local BC Hydro representative.

BC Hydro Employees and Contractors

Please direct questions and concerns related to the author of the Primary Guide or to distribution.standards@bchydro.com.

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