

Project Name:

Date:



Kitchener-Wilmot Hydro Inc.
301 Victoria Street South
Kitchener, Ontario, Canada N2G 4L2

**Appendix F2:
Form DG06**

CONFIRMATION OF VERIFICATION EVIDENCE REPORT (COVER)
[Distribution Connected Generation – (DCG)]

(Instructions provided on last Page)

Section 1	FACILITIES INFORMATION	
NAME OF CUSTOMER		
NAME OF FACILITY		
PROPOSED ENERGIZATION DATE		
KITCHENER-WILMOT HYDRO OPERATING DESIGNATION		
CLAIM NOTIFICATION (Investment Planning #)		
SUPPLY FEEDER DESIGNATIONS		
Section 2	CONTACT INFORMATION	
CUSTOMER CONTACT	KITCHENER-WILMOT HYDRO COVER COORDINATOR CONTACT	
Print Name:	Print Name: Shaun Wang	
Title:	Title: System Planning & Projects Engineer	
Date:	Date:	
Tel. #:	Tel. #:519-745-4771 x 6312	
Email:	Email: swang@kwhydro.n.ca	

Section 3	VERIFICATION-PROTECTION & CONTROL
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	Protection Group To verify	Legend	Results	Initials	Date mm/dd/yyyy	Note #
Protection Group to verify: A, B, or A&B Legend: C = Confirm Results: P = Pass, F = Fail, N/A = Not Applicable						
<ul style="list-style-type: none"> • Is commissioning in compliance with the submitted Commissioning plans? • Are reviewed relay settings applied? 						
Confirm that the following protection systems, as applicable, have been verified to function as per the design: NOTE: Tests marked with an asterisk (*) require K-W Hydro Inc. staff coordination						
<ul style="list-style-type: none"> • Line Protection • HV Breaker Failure Protection and Reclose • LV Breaker Failure Protection and Reclose • Transformer Differential • Transformer Backup Protection • Under and Over Frequency • Under and Over Voltage • Transfer Trip / Remote Trip * • Pilot Wire Protection * • Blocking Scheme Circuits * • Generation Rejection & Load Rejection Circuits * • Reverse Power • Gen. Prot. That trip HV Sync Breakers • Instrument Transformer (e.g. CTS + CCVTs, etc.) • Monitoring Equipment (e.g. DFR, SER, etc.) • Other (Specify) 						

Section 4A	TELEMETRY TESTS BEFORE ENERGIZATION AT CUSTOMER OWNED TS
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Confirm the following SCADA telemetry quantities, where applicable: Test Needed: D = to be <u>D</u> one Legend: C = Confirm; Results: P = Pass, F = Fail All Parts: N/A = Not Applicable	Test Needed	Legend	Results	Initials	Date mm/dd/yy	Note #
• HV MW per transformer	N/A					
• HV MVAR per transformer	N/A					
• HV Phase to Phase Voltages (R, W, B)	N/A					
• LV MW per LV Bus	N/A					
• LV MVAR per LV Bus	N/A					
• LV Phase to Phase Voltages (R, W, B)	N/A					
• HV Under-Load Tap Changer Positions	N/A					
• HV Disconnect Switches/HV Circuit Switchers/Breakers Open/Close Status	N/A					
• LV Transformer & Bus Tie Breakers Open/Close Status	N/A					
• LV Capacitor Breakers Open/Close Status	N/A					
• Common Protection Trip Alarm each HV Circuit	N/A					
• Other (specify)	N/A					

Section 4B	TELEMETRY TESTS BEFORE ENERGIZATION AT CUSTOMER OWNED GS
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Confirm the following SCADA telemetry quantities, where applicable Test Needed: D = to be <u>D</u> one Legend: C = Confirm; Results: P = Pass, F = Fail All Parts: N/A = Not Applicable	Test Needed	Legend	Results	Initials	Date mm/dd/yyyy	Note #
• MW Flows and Directions						
• MVAR Flow and Directions						
• Phase to Phase Voltages						
• HV switchers/HV breakers/Bus Tie Breakers Open/Close Status						
• HV Line Disconnect Switches Open/Close Status						
• Synchronizing Breakers Open/Close Status						
• AVRs, PSSs status						
• Generation Rejection Selection Status						
• LV Breakers/Switchers, Open/Close Status						
• LV Synchronizing Breakers, Open/Close Status						
• Protection Trip Alarms						
• Other (specify)						

Section 5	CONFIRMATION OF VERIFICATION-POWER EQUIPMENT
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Legend: C = Confirm, W = Witness Result: P = Pass, F = Fail All Parts: N/A = Not Applicable <i>Note, some of the following verification may require Kitchener-Wilmot Hydro Inc. witnessing.</i>	Legend	Result	Initial	Date mm/dd/yyyy	Note #
<ul style="list-style-type: none"> Verify the HV disconnect switches/circuit switchers are suitable as an isolation point per Utility Work Protection Code? NOTE: Any future modifications to the isolation device(s) used to provide supporting guarantees to Kitchener-Wilmot Hydro Inc. staff under the Utility Work Protection Code must be re-witnessed by Kitchener-Wilmot Hydro Inc. personnel.					
<ul style="list-style-type: none"> Confirm correct operation of the HV disconnect switches/circuit switchers/breakers 					
<ul style="list-style-type: none"> Is closing time within manufacturer's specification? 					
<ul style="list-style-type: none"> Is opening time within manufacturer's specification? 					
<ul style="list-style-type: none"> Are the specified HV surge arrestors installed? 					
<ul style="list-style-type: none"> Confirm the power transformer Doble test results are within 					
<ul style="list-style-type: none"> Confirm power transformers connected correctly as per the design. 					
<ul style="list-style-type: none"> Confirm the DC system installed (i.e. battery, charger, dc panel, dc monitoring)? Verified 					
<ul style="list-style-type: none"> Does the HV equipment (i.e., disconnect switches, circuit switchers, breakers, CVTs, CTs) have the appropriate voltage class and current ratings as per the submitted Single Line Diagram? 					
<ul style="list-style-type: none"> Other (specify) 					
<ul style="list-style-type: none"> Name of Kitchener-Wilmot Hydro Inc. Witness: 					

Section 6	ELECTRICAL SAFETY
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Legend: SD = Supporting Document, N/A = Not Applicable

- Prior to energizing any new or modified customer or generator facilities, Electrical Safety Authority (ESA) must provide a Temporary Connection Authorization (Ontario Electrical Safety Code Article 2-014). **Attach document.**
- Prior to final in-service of new or modified customer or generator facilities, ESA must provide Connection Authorization (Code Article 2-012). **Attach document.**
- All customers must provide a letter signed and stamped by a Professional Engineer registered in the province of Ontario stating that their equipment and installation meets CSA and/or other applicable electrical safety standards, prior to ready for Service Date. **Attach document.**

NOTES: (For Sections 3, 4A or 4B, 5 & 6)

#:	Comments:	COVER Coordinator Concurrence To Connect:	Date Action Resolved: (dd/mm/yyyy)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			

<p>By signing* this form, the customer acknowledges that all required verifications specified under this COVER document have been completed and that the customer facility design and operation meets the minimum standards for customer facilities connected to a distribution system, as per the Distribution System Code.</p>	<p>_____ Signature of Customer Representative (Note : Must be P. Eng)</p> <p>Print Name: _____</p> <p>Title: _____</p> <p>Date: _____</p>
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Part I Completed **COVER Coordinator Initials** _____

*After signing the COVER, the customer shall submit 2 signed copies to the COVER coordinator.

<p>The COVER Coordinator has reviewed the customer's Certified COVER document and the customer's facility may be connected to the grid, subject to Controlling Authority's final review.</p>	<p>_____ Signature of COVER Coordinator</p> <p>Print Name: _____</p> <p>Title: _____</p> <p>Date: _____</p>
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- The COVER coordinator shall forward (scan/fax) the completed document to the Controlling Authority to initiate the connection (for OGCC controlled distributed generators, the OGCC is the controlling authority. For other feeders the controlling authority will be Provincial Lines). The COVER coordinator shall contact (phone) the Controlling Authority, to notify him/her of the completed COVER.

Section 7	CONFIRM ON POTENTIAL/ON LOAD CHECKS AT RATED SYSTEM VOLTAGE
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Legend: C = Confirm, W = Witness Result: P = Pass, F = Fail All Parts: N/A = Not Applicable	Legend	Result	Initial	Date mm/dd/yyyy	Note #
Are phasor (X-Watt meter) readings completed and analyzed by the customer for Protection listed in Section 3 ?					
Are phasor (X-Watt meter) readings completed and analyzed by the customer for SCADA quantities listed in Section 4 ?					
On Load SCADA Values confirmed consistent with test(s) performed in Section 4A or 4B?					

NOTES: (For Section 7)

#:	Comments:	COVER Coordinator Concurrence:	Date Action Resolved: (dd/mm/yyyy)
1.			
2.			
3.			
4.			

I/we acknowledge the completion of the COVER as noted and the deficiencies identified in the "NOTES" section have been resolved.

Signature of Customer Representative (Note: Must be P. Eng.)
 Print Name: _____
 Title: _____
 Date: _____

Section 8

TEST SUMMARY REPORTS

In accordance with the Distribution System Code, Appendix F, for a Generation facility of Small size (pg.13), Mid-size (pg.21), and Large size (pg.28), the Customer shall, at Kitchener-Wilmot Hydro's request, provide Kitchener-Wilmot Hydro with a summary of testing results, including any certificates of inspection or other applicable authorizations or approvals certifying that any of the Customer's new, modified or replacement facilities have passed the relevant tests and comply with all applicable instruments and standards referred to in the code. This information will be kept on file for a period of (7) years by the Customer.

DISTRIBUTION LIST (WHEN ALL SECTIONS ARE COMPLETED):

Kitchener-Wilmot Hydro Inc. COVER Coordinator

Customer Instructions for Completing the COVER form (DCG)

PART 1: PLAN

Step 1: Customer Information

- Complete Facility and Customer Contact Information of the COVER Form by completing the highlighted portions of Sections 1 & 2.

Step 2: Identify the Tests that the Customer Intends to Conduct

- Complete Highlighted portions (Protection Group and Legend columns) of Sections 3, where applicable
- Complete Highlighted portions of Section 4A or 4B (Test Needed and Legend columns)
- Complete Highlighted portions of Sections 5 (Legend column) and 6 (Date Received column)

Note: The design review must be finalized prior to completing this step.

Step 3: Kitchener-Wilmot Hydro's COVER Coordinator Review

- Return COVER Form by email to the Kitchener-Wilmot Hydro COVER Coordinator listed in Section 2
- The COVER coordinator will review the proposed commission plan and respond to the acceptability of the proposed COVER tests within 5 business days.

Note: The commissioning plan review must be finalized prior to commencing testing for the next step.

PART 2: PRE-ENERGIZATION

Step 4: Completion of Testing and Resolution of all Comments

- Complete all applicable testing in Sections 3, 4A or 4B, 5 & 6.
- Sign off the COVER, in section 6, by a Customer P. Eng Representative, and submit it to the COVER Coordinator.
- The COVER coordinator will review the certified COVER and recommend to Kitchener-Wilmot Hydro Inc. Operations Department for connection to the grid by signing section 6.
- Section 7 testing can only proceed when all salient comments have been resolved and tests completed for Sections 3 to 6.

PART 3: POST-ENERGIZATION

Step 5: Final Potential and On-load Checks

- Kitchener-Wilmot Hydro Inc. will provide authorization to connect to the grid.
- Complete and sign Section 7 when all parts of the COVER form are complete. (Note: cross readings to be performed within 5 business days of placing load on station)
- Summary of testing results and certificates must be kept on file for a minimum period of 7 years by the Customer (as indicated by IESO Market Rules, Chp.4, 5.1.3). Kitchener-Wilmot Hydro Inc. may require this information, on an exception basis.