

Risk Framework Update

Technical Subgroup Topic 2

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and Bob Braletic (Alectra)

Risk Framework Small Group – Key Takeaways

- Focused on Stage 1 objective of providing early indication of connection complexity.
- General agreement that potential applicants would benefit from connection-specific information, including likely technical requirements that would have a cost impact, subject to completion of an actual CIA.
- General agreement to use PCR as vehicle to communicate information.
- Associated guide expected to be prepared with additional information.

Information Expected to be in PCR

PCR proposed to qualitatively report on anticipated project cost/complexity, based on anticipated connection features:

- Generator size and type
- Thermal constraints
- Short circuit constraints
- Upgrades to feeder
- Upgrades to transformer
- Reconductoring of feeder
- Remote monitoring
- Metering upgrades
- Protection upgrades
- Transfer trip
- Requirement for SIA

PCR does not reflect definitive results, which would only be available after a CIA is performed.

Information Expected in Accompanying Guide

- Explanation of PCR-listed technical requirements.
- Brief background on purpose of technical requirement.
- Discussion of connection features that raise or mitigate risk that a technical requirement would be imposed.

Preliminary Consultation Information Request (Draft)

X

Distributed Energy Resource (DER) Connection

Preliminary Consultation Information Request (PCIR)

0202 Preliminary Version A / J
LDC Template Version (By LDC)

1. Instructions

Customers are to obtain this workbook from their LDC's website, complete the worksheet "PCIR", and submit the editable MS Excel file to the LDC in accordance with the instructions provided on the LDC website. All fields are required, unless otherwise noted.

2. Local Distribution Company (LDC) Contact Information

2.01 Contact Information

A. LDC Name	-	Completed by LDC
B. Department Name	-	Completed by LDC
C. Department Address	-	Completed by LDC
D. Department City & Postal Code	-	Completed by LDC
E. Department Fax	-	Completed by LDC - Optional
F. Department Phone	-	Completed by LDC
G. Department Email	-	Completed by LDC

3. General

3.01 Application Information

A. Project Name	-	-
B. Application Submission Date	Date	YYYY-MM-DD

3.02 Applicant Information

A. Applicant (Company Name)	-	-
B. Applicant Type	-	-
C. Applicant Representative (Individual Name)	-	-
D. Applicant Address	-	Corporate Address
E. Applicant City	-	-
F. Applicant Postal Code	-	-
G. Applicant Fax	-	Optional
H. Applicant Phone	-	-
I. Applicant Email	-	-

4. Project Information

4.01 Project Nameplate & Type

A. Proposed Capacity	kW	-
B. Connection Type (Single/Three-Phase)	-	-
C. Inverter-Based/Non-Inverter Based	-	-
D. Exporting/Non-Exporting	-	-
E. Islanding Capability	-	Indicate if capable of islanding from grid

4.03 Proposed DER Fuel/Energy Type

A. Solar	-	-
B. Wind	-	-
C. Water (Hydroelectric)	-	-
D. Biofuel/Biogas	-	-
E. Thermal	-	Other than biofuel
F. Energy Storage	-	-
G. Other	Specify	Enter specific technology type

Continue...

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Worksheet: PCIR

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5. Site Information

5.01 Existing Account Holder

A. Existing Account Number (if Applicable)	-	-
B. Existing Account Holder Name (if Applicable)	-	-

5.02 Site Information

A. Site Address	-	-
B. Site City/Town/Township	-	-
C. Site Postal Code	-	-
D. Site GPS Coordinates	-	-

5.03 Existing DER at Site

A. Existing DER Capacity (if Applicable)	kW	-
B. Existing DER Connection (Single/Three-Phase)	-	-
C. Existing DER Type (Inverter/Non-Inverter)	-	-
D. Existing DER Intent (Exporting/Non-Exporting)	-	-

Required if existing LDC installed

6. Other Information

6.01 Other Information

A. Customers are free to provide any additional information that they believe may be beneficial for the purpose of obtaining a preliminary assessment.

B. If providing accompanying documents, please list them below. Accompanying documents may or may not inform the preliminary consultation.

7. LDC Office Use Only

7.01 PCIR Status

A. Date Received	Date	Completed by LDC
B. Date Returned Incomplete	Date	Completed by LDC
C. Date Received & Deemed Complete	Date	Completed by LDC
E. Date Preliminary Consultation Report Issued	Date	Completed by LDC
F. Application ID Assigned	ID	Completed by LDC

X

Subject to further development by Risk Framework Small Group and review by Technical Subgroup, prior to formal presentation to Working Group.

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Worksheet: PCIR

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Preliminary Consultation Report (Draft)

X Distributed Energy Resource (DER) Connection Preliminary Consultation Report (PCR) OES Template Version A.J LDC Template Version (By LDC)	X Distributed Energy Resource (DER) Connection Preliminary Consultation Report (PCR) OES Template Version A.J LDC Template Version (By LDC)	X Distributed Energy Resource (DER) Connection Preliminary Consultation Report (PCR) OES Template Version A.J LDC Template Version (By LDC)	X Distributed Energy Resource (DER) Connection Preliminary Consultation Report (PCR) OES Template Version A.J LDC Template Version (By LDC)																																																																																																																				
<p>1. Disclaimer The Local Distribution Company (LDC) is providing this information to assist you in completing your Connection Impact Assessment based on information and records available at the time that process does not consider the full range of technical evaluation at this time. Capacity is only reserved upon completion of a requirement.</p> <p>2. Local Distribution Company (LDC) Contact Information</p> <p>2.01 Contact Information</p> <p>A. LDC Name B. Department Name C. Department Address D. Department City & Postal Code E. Department Fax F. Department Phone G. Department Email</p> <p>3. General Application Information</p> <p>3.01 Administration</p> <p>A. Project ID B. Project Name C. Report Date</p> <p>3.02 Applicant Information</p> <p>A. Applicant (Company Name) B. Applicant Representative Email</p> <p>3.02 Project Nameplate & Type</p> <p>A. Proposed Capacity B. Connection Type (Single/Three-Phase) C. Inverter-Based/Non-Inverter Based D. Exporting/Non-Exporting E. Islanding Capability</p> <p>3.03 Proposed DER Fuel/Energy Type</p> <p>A. Solar B. Wind C. Water (Hydroelectric) D. Biofuel/Biogas E. Thermal F. Energy Storage G. Other</p> <p>3.04 Site Information</p> <p>A. Site Address B. Site City/Town/Township C. Site Postal Code D. Site GPS Coordinates</p> <p>3.05 Existing DER at Site</p> <p>A. Existing DER Capacity (if Applicable)</p>	<p>B. Existing DER Connection (Single/Three-Phase) C. Existing DER Type (Inverter/Non-Inverter) D. Existing DER Intent (Exporting/Non-Exporting)</p> <p>4. Connection Overview</p> <p>4.01 Transmitter Assets</p> <p>A. Transmitter Name B. Transformer Station C. Feeder Designation D. Feeder Voltage</p> <p>4.02 Host Distributor Assets (if Applicable)</p> <p>A. Host Distributor Name (if Applicable) B. Host Distributor Station (if Applicable) C. Host Distributor Feeder (if Applicable) D. Host Distributor Feeder Voltage (if Applicable)</p> <p>4.03 LDC or Embedded Distributor Assets</p> <p>A. LDC Distribution Station (if Different from Host) B. LDC Distribution Feeder (if Different from Host) C. LDC Distribution Feeder Voltage</p> <p>4.04 Site Connection Information</p> <p>A. Site Dk Transformer Capacity B. Connection Voltage C. LDC Asset ID (if Applicable)</p> <p>5. Anticipated Studies and Fees</p> <p>If you proceed to apply for a CIA study, the following outcome of the CIA. Consult LDC website for instructions.</p> <p>5.01 Anticipated Impact Assessments Required</p> <p>A. No CIA B. LDC CIA C. Host LDC CIA D. Transmitter CIA E. IESO System Impact Assessment</p>	<p>6. Preliminary Assessment of Connection Complexity (Based on Risk Framework) In order to provide an earlier indication of the anticipated complexity of a connection, these requirements are typically based on judgement or simplified criteria, and consultation with upstream utilities, including host distributors and the transmitter, full range of requirements set through the CIA process. In some cases, LDCs may have additional requirements.</p> <table border="1"> <thead> <tr> <th>No.</th> <th>Item</th> <th>Impact</th> <th>Preliminary Assessment</th> </tr> </thead> <tbody> <tr> <td colspan="4">6.01 Proposed DER Characteristics</td> </tr> <tr> <td>A.</td> <td>DER Size</td> <td>-</td> <td></td> </tr> <tr> <td>B.</td> <td>DER Type (Inverter/Non-Inverter)</td> <td>-</td> <td></td> </tr> <tr> <td>C.</td> <td>DER Intent (Exporting/Non-Exporting)</td> <td>-</td> <td></td> </tr> <tr> <td colspan="4">6.02 Station Constraints</td> </tr> <tr> <td>A.</td> <td>Thermal Constraints</td> <td>Ex. High</td> <td></td> </tr> <tr> <td>B.</td> <td>Short Circuit</td> <td>Ex. 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Overall Assessment</p> <p>7.01 Overall Assessment of Anticipated Capacity</p> <p>A. LDCs articulate their initial assessment on available capacity to connect.</p> <p>7.02 Other Comments by LDC</p>	No.	Item	Impact	Preliminary Assessment	6.01 Proposed DER Characteristics				A.	DER Size	-		B.	DER Type (Inverter/Non-Inverter)	-		C.	DER Intent (Exporting/Non-Exporting)	-		6.02 Station Constraints				A.	Thermal Constraints	Ex. High		B.	Short Circuit	Ex. High		6.03 Distribution System Infrastructure				A.	New Tap Line	High		B.	Voltage Regulator Upgrade	Medium		C.	Reconductoring of Existing Feeder Trunk	High		D.	Site Distribution Transformer Upgrades	Medium		E.	Reconductoring of Branch/Tap	Medium		6.04 Protection, Control, Metering, Telecom, Teleprotection				A.	Protection Upgrades	High		B.	Remote Monitoring	Medium		C.	Metering Upgrades	Low		D.	Transfer Trip	High		6.05 Additional Studies				A.	Host Distributor CIA	Medium		B.	Transmitter CIA	Medium		C.	IESO System Impact Assessment	High		6.06 LDC-Specific Criteria				A.	Optional	TBD		B.	Optional	TBD		C.	Optional	TBD		6.07 LDC Overall Assessment of Connection Complexity				A.	Anticipated Connection Complexity			<p>A. LDCs are free to provide additional information not reported in the prescribed fields above (e.g. siting, switching, potential interconnection design suggestions, teleprotection and/or communication media, etc.).</p>
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Preliminary Consultation Report (Draft)

6. Preliminary Assessment of Connection Complexity (Based on Risk Framework Criteria)

In order to provide an earlier indication of the anticipated complexity of a connection, LDCs provide an initial assessment of likely connection requirements. These requirements are typically based on judgement or simplified criteria, and would be subject to change through the CIA process and through further consultation with upstream utilities, including host distributors and the transmitter. Further, this preliminary assessment does not evaluate the potential for the full range of requirements set through the CIA process. In some cases, LDCs may not have enough information to be able to provide an indication of a given requirement.

No.	Item	Impact	Preliminary Assessment	Comments
6.01 Proposed DER Characteristics				
A.	DER Size	-		As provided by customer.
B.	DER Type (Inverter/Non-Inverter)	-		As provided by customer.
C.	DER Intent (Exporting/Non-Exporting)	-		As provided by customer.
6.02 Station Constraints				
A.	Thermal Constraints	Ex. High		
B.	Short Circuit	Ex. High		
6.03 Distribution System Infrastructure				
A.	New Tap Line	High		
B.	Voltage Regulator Upgrade	Medium		
C.	Reconductoring of Existing Feeder Trunk	High		
D.	Site Distribution Transformer Upgrades	Medium		
E.	Reconductoring of Branch/Tap	Medium		
6.04 Protection, Control, Metering, Telecom, Teleprotection				
A.	Protection Upgrades	High		
B.	Remote Monitoring	Medium		
C.	Metering Upgrades	Low		
D.	Transfer Trip	High		
6.05 Additional Studies				
A.	Host Distributor CIA	Medium		May impose additional requirements.
B.	Transmitter CIA	Medium		May impose additional requirements.
C.	IESO System Impact Assessment	High		May impose additional requirements.
6.06 LDC-Specific Criteria				
A.	Optional	TBD		
B.	Optional	TBD		
C.	Optional	TBD		
6.07 LDC Overall Assessment of Connection Complexity				
A.	Anticipated Connection Complexity			Preliminary assessment by LDC.

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