

# Exhibit A

## of the Same Technology Upgrades Solicitation

### Call for Submissions

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## Same Technology Upgrade Performance Test Protocol

**Supplier:** [Click here to enter text.](#)

**Facility:** [Click here to enter text.](#)

**Buyer/Sponsor:** Independent Electricity System Operator (the  
“IESO”)

## SUBMIT FORM BY E-MAIL TO

[contract.management@ieso.ca](mailto:contract.management@ieso.ca)

Pursuant to [Section ● of the Same Technology Amendment between Supplier and IESO dated [date] (the “Upgrade Amendment”)], the Supplier is hereby submitting this completed form of Same Technology Upgrade Performance Test Protocol (the “Upgrade Test Protocol”) to the IESO. Capitalized terms not defined herein have the meanings ascribed thereto in the Contract,<sup>1</sup> as amended by the Upgrade Amendment.

<b>Date</b>	[Supplier to populate]
<b>Legal Name of Supplier</b>	[Supplier to populate]
<b>Name of Facility</b>	[Supplier to populate]
<b>Location of Facility</b> (municipal Address)	[Supplier to populate]
<b>Title of Contract</b>	[Supplier to populate]
<b>Contract Date of the existing Contract</b>	[Supplier to populate]
<b>Term Commencement Date of the existing Contract</b>	[Supplier to populate]
<b>Term Expiry Date prior to the Upgrade Amendment</b>	[Supplier to populate]
<b>Upgrade Amendment Date</b>	[Supplier to populate]
<b>Proposed Upgrade In-Service Date</b>	[Supplier to populate]
<b>Term Expiry Date after the Upgrade Amendment</b>	[Supplier to populate] [Term Expiry Date is either the same as Term Expiry Date (prior to Upgrade Amendment) or April 30, 2035 under the Extension Alternative.]

### 1. Introduction

<b>Purpose of the Test</b>	Per [Section ● of the Upgrade Amendment], in order to achieve Upgrade In-Service, the Supplier must, among other things, pass the Same Technology Upgrade Performance Test (the “Test”) demonstrating the capability to deliver the Upgraded Capability in accordance with this Upgrade Test Protocol.
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<sup>1</sup> Certain conforming changes to this document may be required depending on the specific terms and terminology used in the applicable contract.

<b>Purpose of this Upgrade Test Protocol</b>	This Upgrade Test Protocol establishes the scope, procedures, and methods of data collection and calculations, among other things, used for conducting the Test and analysis and determination of Test results .
<b>Description of the Test</b>	<p>The Supplier may designate any four (4) continuous hour period to conduct the Test (the “<b>Test Period</b>”), provided that the Supplier: (A) provides at least three (3) Business Days’ prior written notice to the IESO, and (B) coordinates with, and obtains the prior approval of, the System Operator (i.e., the Independent Electricity System Operator of Ontario established under Part II of the <i>Electricity Act</i>, and its successors, acting pursuant to its authority to make, administer and enforce the IESO Market Rules), all as in accordance with applicable laws and the IESO Market Rules.</p> <p>To pass the Test, the Facility must deliver the Electricity output (in MWh) for each hour of the Test Period, divided by one hour, in an amount equal to or greater than the Upgraded Capability at the highest ambient air temperature, as reported at the Environment Canada weather station that is physically nearest to the Facility for the relevant hour.</p> <p>The Test measures the delivery of Electricity at the Delivery Point net of any Station Service Loads in accordance with the approved Metering Plan (as may be amended to incorporate the Permitted Upgrade). The Supplier acknowledges and agrees that the Upgraded Capability Range, the Electricity output of the Facility and the Station Service Loads, as may be measured by the Test, will not be adjusted for any ambient weather conditions other than temperature.</p>
<b>Description of Facility</b>	[Supplier to Insert description of Facility and Permitted Upgrade]
<b>Annual Average Nameplate Capacity (MW)</b>	[Supplier to Insert Annual Average Nameplate Capacity of Facility including Upgrade Capacity (if applicable)]
<b>Connection Point</b>	[Supplier to Insert Connection Point of Facility]
<b>Legal Name of Host, if applicable</b>	[Supplier to Insert Legal Name of Host (if applicable)]
<b>Technology</b>	[Supplier to Insert Technology, (e.g. Combined Cycle, Simple Cycle, etc.) ]
<b>Fuel</b>	[Supplier to Insert fuel type (e.g. Natural Gas)]

## 2. Existing Capability Range and Upgraded Capability Range

Ambient Air Temperature (°C)	Existing Capability	Upgraded Capability
-10		
-5		
0		
+5		
+10		
+15		
+20		
+25		
+30		

## 3. Useful Heat Output, if applicable

<b>Season 1</b>	[If applicable, Supplier to populate with UHO obligations from existing Contract]
<b>Season 2</b>	[If applicable, Supplier to populate with UHO obligations from existing Contract]
<b>Season 3</b>	[If applicable, Supplier to populate with UHO obligations from existing Contract]
<b>Season 4</b>	[If applicable, Supplier to populate with UHO obligations from existing Contract]

## 4. Test Participants

<b>Test Director</b>	<p>The Supplier must assign a <b>“Test Director”</b> who will oversee and direct the execution of the testing activities and be responsible for conducting the Test in accordance with the Upgrade Test Protocol. The Test Director will be present during the entire Test Period.</p> <p>The IESO’s Representative will direct questions and concerns to the Test Director.</p> <p>The Test Director will brief operating personnel on safety considerations and test procedures, and will familiarize them with the range of operation to be expected during the Test.</p>
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<b>Independent Engineer</b>	The Supplier must retain an Independent Engineer who is a licensed professional engineer with Professional Engineers Ontario to observe the Test and certify the Test results and Test Report. The Independent Engineer Certificate is provided in Appendix A.
<b>IESO Representative</b>	The IESO may, but is not obligated to, designate an “ <b>IESO Representative</b> ” to observe the Test and the Supplier must provide the IESO Representative with reasonable access to the Facility and the Test Director in order to observe the Test.

**5. IESO, Hydro One or LDC Contacts**

<b>IESO Contact</b> (name, phone and email)	[Name, phone and email of the IESO Contract Management contact person at the time of Test to be confirmed and communicated to all parties prior to conducting the Test.]
<b>Hydro One or LDC Contact</b> (name, phone and email)	[Name, phone and email of Hydro One or LDC representative at the time of Test to be confirmed and communicated to all parties prior to conducting the Test.]

**6. Same Technology Upgrade Performance Test**

<b>Detailed Test Procedures</b>	<ol style="list-style-type: none"> <li>1. <b>Prior to starting the Test:</b> The Facility must have operated in a stable manner for at least one hour, with all normally operating Facility equipment having reached normal operating temperature and normal operating state.</li> <li>2. <b>Fifteen (15) minutes prior to the Test Period:</b> The Test Director will ensure that the Facility is currently operating in stable condition and, upon confirmation, Test data collection will start.</li> <li>3. <b>At the start of the Test Period:</b> The Test Director will announce the start of the Test to Test Participants.</li> <li>4. <b>During the Test Period:</b> The Facility must be operated in accordance with the plant operating procedures, with normal operating setpoints; with a normal complement of operations staff, delivering Electricity to the Transmission or Distribution System, as applicable. The Test Director must monitor the Facility operation to ensure that the plant remains in stable condition and continues to deliver Electricity as per this Upgrade Test Protocol. Facility operation should remain within the boundaries of equipment and system design.</li> <li>5. <b>At the end of the Test Period:</b> The Test Director will announce the completion of the Test. The operators will return the Facility to regular operation or shut it down, depending on dispatch requirements.</li> <li>6. <b>Fifteen (15) minutes after the Test Period:</b> Test data collection must continue for 15 minutes after the Test Period.</li> <li>7. <b>Following completion of the Test:</b> The Test Director will extract the Test data and review it with the IESO or, if applicable, the IESO Representative for completeness, and to ensure that all data is being displayed and recorded in a manner that allows the Independent Engineer to certify the Test results and Test Report. A copy of all the</li> </ol>
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	raw Test data will be provided by the Independent Engineer to the Supplier and the IESO before they leave the Facility for the day.
<b>Data Collection Plan</b>	[Supplier to describe Data Collection Plan]
<b>Description of Instruments, Meters, Measurement Systems used for Test</b>  (including type, made, model, calibration date, as applicable)	[Supplier to insert description of Instruments, Meters, Measurement Systems used for Test]
<b>Detailed Description of Equipment</b>  (including type, model, capacity, etc., that actually being tested)	[Supplier to insert Detailed Description of Equipment]
<b>Test Conditions</b>	Steady state and stable operation

## 7. Analysis of Results

<b>Definition of a Successful Test</b>  (pass / fail criteria)	To pass the Test, the Facility must deliver the Electricity output (in MWh) for each hour of the Test Period, divided by one hour, in an amount equal to or greater than the Upgraded Capability at the highest ambient air temperature, as reported at the Environment Canada weather station that is physically nearest to the Facility for the relevant hour.
<b>Contingencies for Preliminary or Insufficient Data</b>	[Supplier to complete]
<b>Statistical Techniques, as applicable</b>	[Supplier to complete]
<b>Analysis of Data or Test Results</b>	Pass/Fail

## 8. Test Report

<b>Table of Contents of Test Report</b>	<p>The anticipated table of contents for a Test Report is generally as follows:</p> <p><i>Executive Summary</i></p> <ol style="list-style-type: none"> <li>1.0 Title Page (including date, signatures and affiliations)</li> <li>2.0 Independent Engineer Certification of Test results and Test Report</li> <li>3.0 Executive Summary (including general Facility information, Date and Time of Test, Summary of Test Results, and Conclusions)</li> <li>4.0 Introduction (including Test objectives and identification of Test Participants and IESO, Hydro One or LDC Contacts)</li> </ol>
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	<p>5.0 Test Methodology/Procedure (including any agreements between the IESO and Supplier to allow deviations from the Upgrade Test Protocol, if applicable)</p> <p>6.0 Analysis and Summary of Test Data</p> <p>7.0 Pass/Fail Criteria</p> <p>8.0 Statement of Pass/Fail</p> <p><i>Exhibits – including test data (including raw data) and calculations</i></p>
<b>Date of Submission to the IESO</b>	The Test Report must be submitted to the IESO within ten (10) Business Days after completion of the Test.

**COMPANY REPRESENTATIVE OR AUTHORIZED SIGNATORY\***

\*The Authorized Signatory must be either a signatory of the Contract, a person authorized to receive Notices, or the Company Representative

By: \_\_\_\_\_ Date: \_\_\_\_\_  
[Name]  
[Title]  
[Organization]

**IESO SIGNATORY**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
[Name]  
[Title]  
Independent Electricity System Operator("IESO")



**APPENDIX A**  
**OF SAME TECHNOLOGY UPGRADE PERFORMANCE TEST PROTOCOL**  
**FORM OF INDEPENDENT ENGINEER’S CERTIFICATE**  
**RE SAME TECHNOLOGY UPGRADE SOLICITATION**  
**SUBMIT BY E-MAIL (PDF WITH SIGNATURE)**

[contract.management@ieso.ca](mailto:contract.management@ieso.ca)

Capitalized terms not defined herein have the meanings ascribed thereto in the Contract (as amended by the Upgrade Amendment).<sup>2</sup>

<b>Date</b>	
<b>Legal Name of Supplier</b>	
<b>Name of Facility</b>	
<b>Upgrade Amendment Title</b>	
<b>Upgrade Amendment Date</b>	
<b>Legal Name of Independent Engineer</b>	

**WHEREAS** the Contract (as amended by the Upgrade Amendment) between the Supplier and the Buyer dated as of \_\_\_\_\_ provides that the Permitted Upgrade achieves Upgrade In-Service at the point in time when, *inter alia*, the Buyer has received a certificate (this “**Certificate**”) addressed to it from an Independent Engineer containing certain statements with respect to the Permitted Upgrade;

**AND WHEREAS** [Legal Name of Independent Engineer] (the “**Undersigned**”) acts as the Independent Engineer for the purposes of delivery of this Certificate;

**NOW THEREFORE, THE UNDERSIGNED CERTIFIES** to the Buyer, and acknowledges that the Buyer is relying on this Certificate, that:

- (i) the Undersigned is duly qualified and licensed to practice engineering in the province of Ontario;
- (ii) the Undersigned is neither an employee nor a consultant of the Supplier such that the majority of either the time or billings of the Undersigned during the 18-month period prior to the date hereof were devoted to the Supplier, the Permitted Upgrade or the Facility;
- (iii) the Undersigned is not an affiliate of the Supplier nor directly or indirectly Controlled by the Supplier; and
- (iv) that the following requirements with respect to achievement of Upgrade In-Service have been met:
  - (A) the Supplier has completed the Permitted Upgrade as described in the Contract;
  - (B) the Permitted Upgrade has modified the Facility, such that its Upgraded Capability Range is reasonably expected to be greater than or equal to the following:

\_\_\_\_\_

<sup>2</sup> Certain conforming changes to this document may be required depending on the specific terms and terminology used in the applicable contract.

Ambient Air Temperature (°C)	Upgraded Capability
-10	
-5	
0	
+5	
+10	
+15	
+20	
+25	
+30	

- (C) The Supplier has completed and passed the Same Technology Upgrade Performance Test, and the test results have been accepted by the IESO, demonstrating that the Upgraded Capability has been successfully achieved at the applicable ambient air temperature;
- (D) the Permitted Upgrade has been constructed, connected, commissioned and synchronized to the IESO-Controlled Grid or a Distribution System, such that 100% of the Upgraded Capability at the relevant ambient air temperature is available to Deliver Electricity in accordance with the requirements of all applicable Laws and Regulations; and
- (E) the Supplier has all permits and approvals issued by Governmental Authorities which are required to construct, operate and maintain the Facility with the Permitted Upgrade in accordance with Laws and Regulations, including the final Registration Approval Notification (RAN) issued by the System Operator.

Signed this \_\_\_\_\_ [Day] day of \_\_\_\_\_ [Month, Year] .

**[Legal Name of Independent Engineer]**

Per: \_\_\_\_\_

Name: [Name, P.Eng.]

Title: [Title]

**Professional Engineer Stamp of Signing  
Engineer**

