

**MANITOBA HYDRO  
OPEN ACCESS INTERCONNECTION TARIFF**

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**DOCUMENT HISTORY**

<b>Revision Number</b>	<b>Date</b>	<b>Revision</b>
1	2003 12 12	Initial Publication
2	2004 02 11	Revised liability insurance sections in Attachment 5
3	2005 05 01	Added estimated completion date of report to Attachments 2 and 3
4	2005 07 07	Revised scope of OAIT. Modified Attachment clarifying that no construction can occur under Letter Agreement. Revised expedited procedures.
5	2005 06 10	Substantial revision to the Letter Agreement (Attachment 4). Revised Sections 6.9, 6.10 of Attachment 5.
6	2006 01 17	Added Energy Resource Interconnection Service and Network Resource Interconnection Service provisions.
7	2006 06 09	Added provisions for Exploratory Studies and a Resource Solicitation Process
8	2007 03 27	Revised Resource Solicitation Process to permit Eligible Generators to suspend study process
9	2007 10	Comprehensive revision to entire Tariff, including attachments.
10	2011 02 27	Revised Sections 1.1.8, 2.1, 3.1.1, 3.1.2, 5.4, 5.6, 5.9, 6.1, 6.2, 6.3, 6.4, 7.1.7, 7.1.9, 11.1, 15.1, 15.3, Att. 1, s.5, 6, Att. 2, s.7.0, Att. 2-A, s.7.0, Att. 3, 3-A, s.5.0, Att. 4, Att. 5 (preamble), s.4.2.2, 15.1.1, 17.4, 20.3, 24.11
11	2012 03 16	Added Section 6.3 and Attachment 4 re Engineering and Procurement Agreement

**MANITOBA HYDRO**  
**OPEN ACCESS INTERCONNECTION TARIFF**

**1. Definitions.**

**1.1 General.** When used in this Open Access Interconnection Tariff (“this Tariff”), the terms specified below in this Section 1 shall have the meanings indicated, except where defined otherwise in Attachment 5 of this Tariff in which case said terms shall have the meanings indicated in Attachment 5 for the purposes of interpreting Attachment 5. Terms used in this Tariff with initial capitalization but not defined in this Section 1 shall have the meanings that are consistent with the definitions of such terms set forth in the *pro forma* Interconnection and Operating Agreement that is a part of this Tariff. Throughout this Tariff, the term “day” shall mean a corporate business day for Manitoba Hydro.

**1.1.1** “Affected Transmission Owner” shall mean a transmission owner, other than Manitoba Hydro, that has identified itself as having facilities that may be affected by an Interconnection Request after receiving notice of the Interconnection Request from Manitoba Hydro.

**1.1.2** “Commercial Operation” shall mean the status of a Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.

- 1.1.3** “Commercial Operation Date” of a unit/Facility shall mean the date on which a Facility or a unit of a Facility commences Commercial Operation.
- 1.1.4** “Effective Date” shall mean December 12, 2003.
- 1.1.5** “Eligible Generator” shall mean a Generator that has filed an Interconnection Request, prior to the initiation of a Resource Solicitation Process, for the interconnection of a Facility which, by virtue of the Facility’s resource type and the proposed interconnection site, is eligible for inclusion in a particular Resource Solicitation Process.
- 1.1.6** “Exploratory Study” shall mean a preliminary study conducted by Manitoba Hydro pursuant to Section 2.4 of this Tariff in order to provide prospective interconnecting Generators with a rough approximation of the costs associated with interconnection of a Facility and delivery of energy from the Facility to Manitoba load based on varying Facility sizes and locations throughout the Province of Manitoba.
- 1.1.7** “Energy Resource Interconnection Service” shall mean an Interconnection Service that allows the Generator to connect its Facility to the System to be eligible to deliver the Facility’s electric output using the existing firm or non-firm capacity of the Transmission System on an as available basis.

Energy Resource Interconnection Service in and of itself does not convey Transmission Service.

**1.1.8** INTENTIONALLY LEFT BLANK

**1.1.9** “Facility” shall mean Generator’s electric generating facility identified in its Interconnection Request.

**1.1.10** “Generator” shall mean a person proposing to interconnect a Facility to the System or to increase the capacity of or undertake a Substantial Modification to an existing generating facility connected to the System, or to convert from one type of Interconnection Service to another.

**1.1.11** “Generator Interconnection Facilities” shall mean the transmission facilities and equipment required to physically and electrically connect the Facility to the System that are on Generator’s side of the Point of Interconnection.

**1.1.12** “Good Utility Practice” shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice

is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**1.1.13** “Group Study/Report” shall mean a single Interconnection Evaluation Study or Interconnection Facilities Study and its associated report that is conducted for a group of two or more Interconnection Requests, rather than for an individual Interconnection Request, but shall not include a Resource Solicitation Study/Report.

**1.1.14** “In-Service Date” shall mean the date upon which the Generator reasonably expects to be ready to begin use of the Transmission Owner Interconnection Facilities and have the Generator’s Facility energized in parallel with the Manitoba Hydro System.

**1.1.15** “Initial Synchronization Date” shall mean the date upon which the Facility is initially synchronized and Trial Operation begins.

**1.1.16** “Interconnection Evaluation Study” shall mean a study conducted pursuant to Section 5.3, or Section 7.1.7 or Section 7.2 of this Tariff to assess the impact of an addition or increase in generating capacity or Substantial Modification to an existing Facility, or a conversion from one type of Interconnection Service to another on the reliability of the System and adjacent interconnected systems.

- 1.1.17** “Interconnection Evaluation Study Agreement” shall mean the pro forma Interconnection Evaluation Study Agreement that is included as Attachment 2 to this Tariff.
- 1.1.18** “Interconnection Evaluation Study Report” shall mean a report prepared by Manitoba Hydro documenting the results of an Interconnection Evaluation Study.
- 1.1.19** “Interconnection Facilities” shall mean the transmission facilities and equipment required to physically and electrically connect the Facility to the System, consisting of Generator Interconnection Facilities and Transmission Owner Interconnection Facilities.
- 1.1.20** “Interconnection Facilities Study” shall mean a study conducted by Manitoba Hydro pursuant to Section 6.2, or Section 7.1.10 or Section 7.2 of this Tariff to determine the work required to effect the physical and electrical connection of the proposed Facility at the Point of Interconnection or to otherwise accommodate an Interconnection Request and to address reliability concerns identified in an Interconnection Evaluation Study.
- 1.1.21** “Interconnection Facilities Study Agreement” shall mean the pro forma Interconnection Facilities Study Agreement that is included as Attachment 3 to this Tariff.

- 1.1.22** “Interconnection and Operating Agreement” shall mean the *pro forma* Interconnection and Operating Agreement that is included as Attachment 5 to this Tariff.
- 1.1.23** “Interconnection Request” shall mean a request by a Generator to connect a Facility to the System or to increase the capacity of or to undertake a Substantial Modification to an existing generating facility that is connected to the System, or to convert from one type of Interconnection Service to another, in the form of Attachment 1 to this Tariff.
- 1.1.24** “Interconnection Service” shall mean the services provided by Manitoba Hydro to interconnect a Facility with the System or to accommodate an increase in generating capacity or Substantial Modification to an existing Facility, or to accommodate a change in the delivery of electricity from the Facility as set forth in an Interconnection and Operating Agreement, including, but not limited to, the design, construction, installation and operation of all Transmission Owner Interconnection Facilities and Interconnection System Upgrades identified in an Interconnection and Operating Agreement. Interconnection Service shall be classified as either Energy Resource Interconnection Service or Network Resource Interconnection Service.



**1.1.25** “Interconnection Study” shall mean an Interconnection Evaluation Study or an Interconnection Facilities Study, whether conducted pursuant to an individual Interconnection Request or as part of a Group Study or a Resource Solicitation Study.

**1.1.26** “Interconnection System Upgrades” shall mean the minimum necessary upgrades to the System that would not have been required but for an Interconnection Request, including (i) upgrades necessary to remove overloads and voltage criteria violations, and (ii) upgrades necessary to remedy short-circuit and/or stability problems resulting from the connection of the Facility to the System. Interconnection System Upgrades shall not include upgrades to the System that may be required to move power from the Point of Interconnection to any load, unless the Generator requests Network Resource Interconnection Service, and shall not include Transmission Owner Interconnection Facilities.

**1.1.27** “Native Load Customers” shall mean the wholesale and retail power customers of Manitoba Hydro on whose behalf Manitoba Hydro has undertaken an obligation by statute, contract, regulatory or other legal requirement to construct and operate Manitoba Hydro’s System to meet the reliable electricity needs of such customers.

- 1.1.28** “Network Resource Interconnection Service” shall mean an Interconnection Service that allows the Generator to integrate its Facility with the System in a manner comparable to that in which Manitoba Hydro integrates its generating facilities to serve Native Load Customers. Network Resource Interconnection Service in and of itself does not convey Transmission Service.
- 1.1.29** “OASIS” shall mean the electric information network known as Open Access Same-Time Information System used by the North American electricity industry for the publication of open access tariffs.
- 1.1.30** “OATT” shall mean Open Access Transmission Tariff, as revised from time to time.
- 1.1.31** “Phase 1” shall mean the first phase of an Interconnection Evaluation Study as defined in Section 5.3 of this Tariff.
- 1.1.32** “Phase 2” shall mean the second phase of an Interconnection Evaluation Study as defined in Section 5.3 of this Tariff.
- 1.1.33** “Planning Coordinator” shall have the same meaning as defined by the North American Electric Reliability Corporation.
- 1.1.34** “Point of Interconnection” shall mean the point on the Interconnection Facilities where the Generator Interconnection Facilities interconnect with

the Transmission Owner Interconnection Facilities as determined by Manitoba Hydro in consultation with Generator.

**1.1.35** “Prime Lending Rate” shall mean the then current prime interest rate per annum as publicly announced from time to time by the Royal Bank of Canada at its main office in the City of Winnipeg, Manitoba as its preferred lending rate of interest charged to its most creditworthy Canadian customers, whether or not such interest rate is actually charged by said bank to any customer.

**1.1.36** “Reasonable Efforts” shall mean such efforts as are timely and consistent with Good Utility Practice and consistent with the efforts that would be undertaken for the protection of the acting party’s own interests under the conditions affecting such action, including but not limited to the amount of notice of the need to take such action and the duration and type of such action.

**1.1.37** “Resource Solicitation Process” shall mean the process initiated by a request for expressions of interest in supplying electricity generation resources that is initiated by the Province of Manitoba and/or Manitoba Hydro.

- 1.1.38** “Resource Solicitation Study/Report” shall mean an Interconnection Study and its associated report that is conducted for one or more Generators in response to a Resource Solicitation Process.
- 1.1.39** “Site Control” shall mean: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusive business relationship between Generator and the entity having the right to sell, lease or grant Generator the right to possess or occupy a site for such purpose.
- 1.1.40** “Standby Generator(s)” shall mean a generator equipped with: (i) controls that, within seconds of an outage, automatically detect a power loss, command the generator to start and transfer the electrical load to the generator; and (ii) an automatic transfer switch that, upon power restoration, transfers the electrical load back to the System and signals the generator to shut off, provided that power generated by the generator(s) does not flow into the System.
- 1.1.41** “Substantial Modification” shall have the same meaning as defined in Manitoba Hydro’s Transmission System Interconnection Requirements.
- 1.1.42** “System” shall mean the transmission, subtransmission and distribution facilities owned and operated by Manitoba Hydro.

- 1.1.43** “Tariff” shall mean this Open Access Interconnection Tariff.
- 1.1.44** “Transmission Operator” shall mean an entity other than a transmission owner that operates a Transmission System, including, but not limited to, an independent system operator, independent transmission company, independent transmission provider or regional transmission organization.
- 1.1.45** “Transmission Owner Interconnection Facilities” shall mean the transmission facilities and equipment required to physically and electrically connect the Facility to the System that are on Manitoba Hydro’s side of the Point of Interconnection.
- 1.1.46** “Transmission Service” shall mean the delivery of electrical energy over the Transmission System pursuant to the terms and conditions of Manitoba Hydro’s Open Access Transmission Tariff (OATT).
- 1.1.47** “Transmission System” shall mean the facilities that are owned, controlled and operated by Manitoba Hydro that are used to provide Transmission Service.
- 1.1.48** “Trial Operation” shall mean the period during which the Generator is engaged in on-site test operations and commissioning of the Facility prior to Commercial Operation.

## **2. Scope and Application.**

**2.1 General.** Except as herein provided, a Generator that proposes to interconnect a new generating facility to the System or to increase the capacity or undertake a Substantial Modification of an existing generating facility or to change the type of Interconnection Service provided to a generating facility after the Effective Date of this Tariff, shall apply to Manitoba Hydro for Interconnection Service pursuant to the terms, conditions and procedures set forth in this Tariff and shall pay for any Interconnection Facilities and Interconnection System Upgrades in accordance with the Interconnection and Operating Agreement. This Tariff applies to the interconnection, conversion of Interconnection Service, increase in capacity and Substantial Modification of all generation, including generation owned by Manitoba Hydro and affiliates, and to customer-owned equipment that is connected to the System with the exception of: (i) generating facilities that generate 10 MW of electricity or less that are to be connected to distribution facilities of 25 kV or less and which the Generator proposes to be designated as a Network Resource for service to Manitoba load, and (ii) Standby Generators of less than 10 MW that are connected to the system at 100 kV or less. In either of these cases, the interconnection shall be processed pursuant to Manitoba Hydro's Distributed Resources Interconnection Procedures, unless such interconnection affects Manitoba Hydro System facilities that exceed 25kV.

- 2.2 Role of Manitoba Hydro.** Manitoba Hydro shall serve as the only authority for receiving and processing Interconnection Requests pursuant to Section 2.1 of this Tariff. Manitoba Hydro shall coordinate its processing and analysis of Interconnection Requests with any Affected Transmission Owner.
- 2.3 No Applicability to Transmission Service.** This Tariff provides only for the interconnection of a generating facility and does not include the delivery of the output of the generating facility over the Transmission System. An Interconnection Request under this Tariff does not constitute a request for Transmission Service. A Generator may request Transmission Service under the Manitoba Hydro OATT at the time of its Interconnection Request or thereafter. All rates, terms and conditions of the Manitoba Hydro OATT shall apply to any such request for Transmission Service.
- 2.4 Exploratory Studies.** Manitoba Hydro, in its sole discretion as a Planning Coordinator, may conduct an Exploratory Study to provide prospective interconnecting Generators with a rough approximation of the costs associated with the interconnection of a Facility and delivery of energy from a Facility to Manitoba load based on a range of Facility sizes and locations throughout the Province of Manitoba. Exploratory Studies shall be conducted in such a manner to ensure the efficient implementation of Manitoba Hydro's transmission expansion plan in the light of the System's capabilities at the time of the study.

Manitoba Hydro shall post on OASIS a notice of intention to perform an Exploratory Study and the scope of the Exploratory Study.

**2.5 Exploratory Study Report.** Once an Exploratory Study is completed, Manitoba Hydro shall post the Exploratory Study Report on OASIS. An Exploratory Study Report is intended to provide a preliminary, rough approximation of the costs associated with interconnection of a Facility and delivery of energy from a Facility to Manitoba load, based on Facility size and location, and is not intended to be relied upon by the Generator. Manitoba Hydro makes no representations or warranties with respect to the accuracy, completeness, reliability or suitability of the Exploratory Study Report. Generator assumes any and all risk and responsibility for use of and reliance on the Exploratory Study Report. Generator disclaims and waives, any rights or remedies that it might otherwise have against Manitoba Hydro in contract, tort, equity or other legal cause of action for faults, errors, defects, inaccuracies, omissions, suitability or reliability of the Exploratory Study Report.

**2.6 Base Case Data.** Upon request by a Generator or prospective Generator, Manitoba Hydro shall provide the following data, subject to confidentiality requirements: base power flow, short circuit and stability databases, including all underlying assumptions, and contingency lists (“Base Case data”). Such Base Case data shall include all (i) generation projects and; (ii) transmission projects,



including merchant transmission projects that are proposed for the Transmission System for which a transmission expansion plan has been approved by all applicable authorities. Prior to the release of Base Case data, Manitoba Hydro may require a prospective Generator to execute a confidentiality agreement that is acceptable to Manitoba Hydro in form and substance.

### **3. Interconnection Requests.**

**3.1 General.** A Generator applying for Interconnection Service pursuant to Section 2.1 that is not in response to a Resource Solicitation Process shall submit to Manitoba Hydro an Interconnection Request in the form of Attachment 1 provided as a part of this Tariff. A Generator applying for Interconnection Service pursuant to Section 2.1 in response to a Resource Solicitation Process shall submit an Interconnection Request in the form of Attachment 1 to the solicitor initiating the Resource Solicitation Process, who in turn shall submit the Interconnection Request to Manitoba Hydro with all other Interconnection Requests related to the Resource Solicitation Process. All Interconnection Requests shall be submitted in accordance with Subsections 3.1.1 through and including 3.1.3 of this Tariff.

**3.1.1 Information Requirements.** An Interconnection Request shall include (i) the location of the proposed new Facility site by section and township and

range or, where such a description is not available, by geographical coordinates, or, in the case of an existing Facility site, the name and specific location of the Facility; (ii) the maximum megawatt electrical output of the proposed new Facility or the amount of megawatt increase in the generation capacity at an existing Facility or a description of the Substantial Modification, as applicable; (iii) a general description of the equipment configuration for the Facility or Substantial Modification, including a single line diagram of the existing or proposed Facility; (iv) the planned In-Service Date (month and year) for the proposed Facility units or capacity addition or Substantial Modification; (v) the type of Interconnection Service requested as per Section 3.2; and (vi) evidence of Site Control, if Generator has Site Control. An Interconnection Request shall also include appropriate contact information for the Generator. Failure by Generator to provide Manitoba Hydro with written notice of changes to such contact information at least ten (10) days prior to such change shall result in the loss of Generator's queue position.

**3.1.2 Deposit.** A Generator applying for Interconnection Service that is not in response to a Resource Solicitation Process shall provide a deposit of \$10,000.00 (Cdn) when submitting its Interconnection Request. The deposit shall be applied towards the cost of Interconnection Studies. The

solicitor initiating a Resource Solicitation Process shall submit a \$10,000 (Cdn) deposit for processing all Interconnection Requests submitted. In the event that an Interconnection Request is terminated or deemed withdrawn, deposit monies in excess of the costs incurred for Interconnection Studies shall be refunded to Generator or solicitor, as applicable.

**3.1.3 Multiple Sites/Range of Output.** A separate Interconnection Request must be submitted for each Facility site. However, a single Interconnection Request may request consideration, for the purposes of an Interconnection Evaluation Study only, of a range of values for the maximum output of the Facility. Notwithstanding the foregoing, the range shall be limited to three values: a maximum value, a minimum value and a third value between the maximum and minimum chosen by the Generator.

**3.2 Identification of Types of Interconnection Services.** At the time the Interconnection Request is submitted, Generator shall request either Energy Resource Interconnection Service or Network Resource Interconnection Service, as described; provided, however, any Generator requesting Network Resource Interconnection Service may also request that it be concurrently studied for Energy Resource Interconnection Service, up to the point when an

Interconnection Facilities Study Agreement is executed. An Interconnection Evaluation Study that examines Energy Resource Interconnection Service and Network Resource Interconnection Service concurrently for an Interconnection Request that requests consideration of a range of values for the maximum output of the Facility, pursuant to Section 3.1.3, shall only evaluate the impacts of the Facility at three specific values for the output: the minimum, the maximum and a value selected by the Generator. Generator may then elect to proceed with Network Resource Interconnection Service or to proceed under a lower level of Interconnection Service to the extent that only certain upgrades will be completed.

### **3.2.1 Energy Resource Interconnection Service.**

#### **3.2.1.1 The Product.** Energy Resource Interconnection Service allows

Generator to connect the Facility to the System and be eligible to deliver the Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis.

Energy Resource Interconnection Service does not in and of itself convey any right to deliver electricity to any specific customer or Point of Delivery.

#### **3.2.1.2 The Study.** The Interconnection Evaluation Study and

Interconnection Facilities Study for Energy Resource Interconnection Service shall consist of short circuit/fault duty,

steady state (thermal and voltage) and stability analyses. The short circuit/fault duty analysis identifies Interconnection Facilities required and the Interconnection System Upgrades necessary to address short circuit issues associated with the Interconnection Facilities. The stability and steady state studies identify necessary Interconnection System Upgrades to allow full output of the proposed Facility and also identify the maximum allowed output, at the time the study is performed, of the interconnecting Facility without requiring Network Upgrades.

### **3.2.2 Network Resource Interconnection Service.**

**3.2.2.1 The Product.** Network Resource Interconnection Service requires Manitoba Hydro to conduct the necessary studies and construct the Interconnection System Upgrades needed to integrate the Facility in a manner comparable to that in which Manitoba Hydro integrates its generating facilities to serve Native Load Customers. Network Resource Interconnection Service allows Generator's Facility to be designated as a Network Resource, up to the Facility's full output, on the same basis as existing Network Resources interconnected to Manitoba Hydro's System, and to be

studied as a Network Resource on the assumption that such a designation will occur.

**3.2.2.2 The Study.** The Interconnection Evaluation Study and Interconnection Facilities Study for Network Resource Interconnection Service shall ensure that Generator's Facility meets the requirements for Network Resource Interconnection Service and as a general matter, that such Facility's interconnection is also studied with Manitoba Hydro's Transmission System at peak load, and other load levels deemed appropriate by Manitoba Hydro, under a variety of severely stressed conditions, to determine whether, with the Facility at full output, the aggregate of generation in Manitoba can be delivered to the aggregate of load on Manitoba Hydro's Transmission System, consistent with Manitoba Hydro's reliability criteria and procedures. This approach assumes that some portion of existing Network Resources are displaced by the output of Generator's Facility. Network Resource Interconnection Service in and of itself does not convey any right to deliver electricity to any specific customer or Point of Delivery.

**3.3 Valid Interconnection Request.** An Interconnection Request shall not be considered to be a valid Interconnection Request until all of the items specified in Section 3.1 have been received by Manitoba Hydro. If an Interconnection Request fails to include such items, Manitoba Hydro shall notify Generator, or the solicitor of a Resource Solicitation Process, within seven (7) days of the receipt of the initial Interconnection Request that the Interconnection Request is not valid and the reasons for such invalidity. Generator shall provide Manitoba Hydro with the information needed to constitute a valid Interconnection Request within fifteen (15) days after receipt of such notice. If Generator, or the solicitor of a Resource Solicitation Process, fails to provide the information within such fifteen (15)-day period, the Interconnection Request shall be deemed terminated.

**3.4 OASIS Posting.** Manitoba Hydro shall maintain on the OASIS used by Manitoba Hydro a list of all valid Interconnection Requests. The list shall identify: (i) the maximum summer and winter megawatt electrical output of each proposed generation capacity addition; (ii) location, by section and township and range or geographical coordinates or street address, of the generation capacity addition; (iii) the station or transmission line or lines where the proposed generation capacity addition is likely to be connected; (iv) the planned In-Service Date; (v) the status of the Interconnection Request, including queue position; (vi) the availability of any Interconnection Studies related to the Interconnection Request;

(vii) the type of Facility to be constructed; (viii) the date of the Interconnection Request; (ix) an explanation as to why an interconnection was not completed (if applicable); and (x) the type of Interconnection Service requested. The list shall not disclose the identity of Generator.

**3.5 Coordination with Adjacent Systems.** Upon receipt of a valid Interconnection Request, Manitoba Hydro shall provide notice of the Interconnection Request to any adjacent Transmission Operator and directly interconnected transmission owner that may, in the sole discretion of Manitoba Hydro, be affected by the proposed interconnection. It shall be the responsibility of the interconnected transmission owner to determine whether its facilities and/or operations will be affected by the Interconnection Request and to designate itself as an Affected Transmission Owner for the purposes of the Interconnection Request and identify its specific concerns by the date specified by Manitoba Hydro in its notice. Manitoba Hydro shall use Reasonable Efforts to coordinate with such adjacent Transmission Operators and Affected Transmission Owners in the performance of any studies and the addition of Interconnection System Upgrades that may be necessary on the interconnected systems of Affected Transmission Owners as a result of the Interconnection Request.

**3.6 Meeting with Generator.** Within ten (10) days of receiving a valid Interconnection Request, Manitoba Hydro shall arrange a meeting with Generator



at a mutually agreeable time, but within twenty-five (25) days of receiving the valid Interconnection Request, in order to discuss the scope of an Interconnection Evaluation Study, pursuant to Section 5.3, and the location for the Point(s) of Interconnection. Generator and Manitoba Hydro shall have appropriate personnel in attendance at the meeting to accomplish the purpose of the meeting in the allocated time.

#### **4. Queue Position.**

**4.1 General.** The queue position of each Interconnection Request shall be based upon the date on which Manitoba Hydro receives a valid Interconnection Request from Generator. To retain such queue position, Generator must strictly adhere to all deadlines, information requirements and other provisions of this Tariff. Failure to strictly adhere to all deadlines, information requirements and other provisions of this Tariff shall result in forfeiture of the queue position and termination of the Interconnection Request.

**4.1.1 Processing in Queue Order.** The Queue Position of each Interconnection Request shall be used to determine the order of commencing Interconnection Studies and to determine cost responsibility for the facilities necessary to accommodate an Interconnection Request, except as

provided otherwise in this Section 4.1, Section 7.1.12, Section 7.2.2(d), Section 7.2.4, and Section 10.4.

#### **4.1.2 Processing out of Queue Order.**

**4.1.2.1 Circumstances.** If Manitoba Hydro has the necessary resources, Manitoba Hydro may elect to perform an Interconnection Study out of queue order, if warranted by Good Utility Practice, under the following circumstances:

- a) based upon the electrical remoteness of the Facility; or
- b) for Group Studies conducted in accordance with Section 7.1 of this Tariff, if justified by the electrical remoteness of higher queued Interconnection Requests; or
- c) at the request of a Generator, with which Manitoba Hydro concurs, to perform a Substantial Modification to an existing Facility to either remedy a failure or to address a reliability deficiency that requires urgent action.

**4.1.2.2 Impact on Other Requests.** Processing an Interconnection Request out of queue order shall not relieve Manitoba Hydro from its obligation to comply with the specified deadlines for completing Interconnection Studies for other Interconnection Requests.

**4.1.2.3 Generator's Obligations.** If Generator's Interconnection Study is performed out of queue order, Generator must acknowledge and accept:

- a) the financial risk of higher Interconnection Study costs associated with Manitoba Hydro's acquiring more resources to perform the Generator's Interconnection Study out of queue order while still meeting the Interconnection Study obligations related to higher queued Interconnection Requests;
- b) that its Interconnection Request is subject to review and may be restudied in queue order at a later date as a result of changes to assumptions made with respect to higher queued Interconnection Requests;
- c) that its Interconnection and Operating Agreement, if signed prior to the processing of higher queued Interconnection Requests, may require amendment to reflect the construction and assignment of costs related to additional Interconnection System Upgrades as Interconnection Studies of higher queued Interconnection Requests are completed if Generator

wishes to receive the full level of Interconnection Service requested;

- d) that, notwithstanding that an Interconnection and Operating Agreement has been signed, Manitoba Hydro reserves the right to place conditions on the provision of Network Resource Interconnection Service, to be specified in Appendix D to the Interconnection and Operating Agreement with the Generator, in the event that the processing of higher queued Interconnection Requests reveals that the full level of Interconnection Service cannot be provided without the construction of additional Interconnection System Upgrades.

**4.2 Transferability of Queue Position.** The queue position of an Interconnection Request is specific to the Point of Interconnection for the project and site identified in the Interconnection Request. A queue position may not be assigned, leased, sold or otherwise transferred to any other entity without the prior written consent of Manitoba Hydro.

**4.3 Queue Position for Interconnection Requests submitted prior to Effective Date of Interconnection Procedures.** All requests to Manitoba Hydro for interconnection of generation facilities to the System or increasing the capacity of

or undertaking Substantial Modifications to existing generating facilities (“request(s) for interconnection”) submitted before the Effective Date of this Tariff shall be assigned a queue position based on the date upon which such request for interconnection was received by Manitoba Hydro, provided that Generator complies with all provisions of this Tariff related to processing of the request for interconnection which takes place after the Effective Date. For greater certainty of interpretation, the following provisions shall apply:

- (a) if a study equivalent to an Interconnection Evaluation Study has not commenced as of the Effective Date of this Tariff, the request for interconnection shall be processed in accordance with this Tariff;
- (b) if a study equivalent to the Interconnection Evaluation Study has been commenced but is not completed as of the Effective Date of this Tariff, Manitoba Hydro shall complete such study. Once the equivalent study has been completed and the results of such study provided to Generator, the request for interconnection shall be processed in accordance with this Tariff; and
- (c) if an equivalent to the Interconnection Facilities Study has been completed but an equivalent to the Interconnection and Operating Agreement has not been signed as of the Effective Date of this Tariff, Manitoba Hydro shall tender a final draft of the *pro forma*

Interconnection and Operating Agreement to the Generator for execution in accordance with Sections 8.1 and 8.2 of this Tariff.

**4.4 Request for Reasonable Extension.** A Generator who has submitted a request for interconnection to Manitoba Hydro prior to the Effective Date of this Tariff may request a reasonable extension of any deadline set forth in this Tariff if necessary to avoid undue hardship or prejudice to its request for interconnection. A reasonable extension shall be granted if, in the judgment of Manitoba Hydro, (i) the need for the extension is not caused by the Generator; and (ii) it is necessary to avoid undue hardship to the Generator; and (iii) it is consistent with the intent and process provided in this Tariff.

**5. Interconnection Evaluation Study.**

**5.1 Interconnection Evaluation Study Agreement.** Within thirty (30) days of its receipt of an Interconnection Request, Manitoba Hydro shall provide to Generator an Interconnection Evaluation Study Agreement in the form of Attachment 2, unless Manitoba Hydro is unable to complete an Interconnection Evaluation Study Agreement using reasonable study assumptions within such time period. In the latter case, Manitoba Hydro shall so notify Generator within the thirty (30) day period and provide Generator with an estimated completion date for the Interconnection Evaluation Study Agreement, along with an explanation as to why additional time is required. Pursuant to the Interconnection Evaluation Study

Agreement, Generator shall compensate Manitoba Hydro for the amount by which the actual cost of conducting the Interconnection Evaluation Study and preparing the Interconnection Evaluation Study Report exceeds the deposit provided by Generator. The Interconnection Evaluation Study Agreement shall specify Manitoba Hydro's non-binding estimate of the cost of, and the time estimated to complete each phase of, the Interconnection Evaluation Study and associated Report(s), the relevant technical data that must be provided by Generator for the Interconnection Evaluation Study, and the names of any adjacent Transmission Operators and Affected Transmission Owners with which the study will be coordinated. To the extent known by Manitoba Hydro, such non-binding estimate shall include any study costs expected to be incurred by adjacent Transmission Operators and Affected Transmission Owners in the performance of coordinated studies. Manitoba Hydro shall also provide a *pro forma* Interconnection and Operating Agreement to Generator so that Generator may begin reviewing the terms and conditions required by Manitoba Hydro. The *pro forma* Interconnection and Operating Agreement shall be in the form of the *pro forma* Interconnection and Operating Agreement included as Attachment 5 to this Tariff.

**5.2 Execution of Interconnection Evaluation Study Agreement.** Generator shall execute the Interconnection Evaluation Study Agreement and deliver the executed

agreement to Manitoba Hydro within fifteen (15) days of its receipt and provide to Manitoba Hydro an initial payment of the estimated cost to perform the Interconnection Evaluation Study and prepare the Interconnection Evaluation Study Report(s) (included in the agreement) less the deposit paid by Generator at the time of submitting the Interconnection Request. If the executed Interconnection Evaluation Study Agreement and initial payment of the estimated cost are not received within fifteen (15) days, the queue position of the Interconnection Request shall be forfeited and the Interconnection Request shall be deemed terminated.

**5.3 Scope of Interconnection Evaluation Study.** The Interconnection Evaluation Study shall be conducted in accordance with Good Utility Practice to assess the impact of the Interconnection Request on the reliability of the System and the systems of adjacent Transmission Operators and Affected Transmission Owners. Such Study shall be based on the Point(s) of Interconnection as determined by Manitoba Hydro. The Interconnection Evaluation Study will not assess the adequacy of Generator's proposed Facility or the proposed Generator Interconnection Facilities. The Interconnection Evaluation Study will consider, at a minimum, all generating facilities physically interconnected to the System on the date the Interconnection Evaluation Study is commenced, all generating facilities that are not physically interconnected to the System but that have an



executed Interconnection and Operating Agreement, and generating facilities physically interconnected to the systems of adjacent Transmission Operators and Affected Transmission Owners on the date the study is commenced that may affect the proposed interconnection. As the default assumption, unless the Generator requesting the Interconnection Evaluation Study specifies otherwise, or Manitoba Hydro judges that consideration of other generating facilities in the queue would likely result in a greater adverse impact on system reliability than the default assumption, the Interconnection Evaluation Study will not consider any proposed generating facility in the queue that has not resulted in an executed Interconnection and Operating Agreement. Where a Generator requests that Manitoba Hydro consider proposed generating facilities without executed Interconnection and Operating Agreements in its studies, the requesting Generator shall specifically identify the proposed generating facilities that are in the interconnection queue that Manitoba Hydro should consider as being interconnected in the proposed Interconnection Evaluation Study. Manitoba Hydro shall perform the Interconnection Evaluation Study with the identified generating facilities considered interconnected, provided that, in the judgment of Manitoba Hydro, the specified interconnection scenario would likely result in a greater adverse impact on system reliability than the default assumption. If requested by Generator, pursuant to the terms of an Interconnection Evaluation

Study Agreement, the Interconnection Evaluation Study shall be conducted in two phases. Phase 1 shall consist of a power flow analysis. Phase 2 shall consist of short circuit and stability analyses. The power flow analysis, at a minimum, will determine the extent of thermal overloading on the System and the systems of adjacent Transmission Operators and Affected Transmission Owners due to the Interconnection Request. The short circuit analysis will evaluate, at a minimum, the impact of the Interconnection Request on the short circuit current capability of the circuit breakers at the Point of Interconnection and at other affected stations. The stability analysis will be carried out to (a) assess the ability of the proposed generation facility to remain in synchronism following credible system events, including faults; (b) assess the adequacy of damping of generation/transmission oscillations; and (c) evaluate the impact of the generation facility (and associated required network additions) on stability performance of generators within the scope of the Interconnection Evaluation Study. The study criteria that Manitoba Hydro shall use in the Interconnection Evaluation Study shall be the criteria of Manitoba Hydro as identified in its Transmission System Interconnection Requirements and those of Affected Transmission Owners that reflect, to the extent appropriate, the unique characteristics of the System at the Point(s) of Interconnection and the systems of adjacent Transmission Operators and Affected Transmission Owners. Upon the request of Generator, Manitoba Hydro shall

include in the Interconnection Evaluation Study consideration of the implications associated with use of the Point(s) of Interconnection for Generator to receive electric energy for start-up and station auxiliary service purposes. In conducting an Interconnection Evaluation Study, Manitoba Hydro shall utilize existing studies to the extent practicable. Unless requested otherwise by Generator, at the time of execution of the Interconnection Evaluation Study Agreement, Manitoba Hydro shall perform Phase 1 and Phase 2 concurrently and Generator shall receive one Interconnection Evaluation Study Report at the time of completion of both phases. If Phase 1 and Phase 2 are performed sequentially, a preliminary report shall be issued at the completion of Phase 1 and a final report after the completion of Phase 2. If Generator elects to have Phase 1 and Phase 2 performed sequentially, Generator may elect not to proceed with Phase 2 of the Interconnection Evaluation Study in which case the queue position of the Interconnection Request shall be forfeited and the Interconnection Request shall be deemed terminated.

**5.4 Interconnection Evaluation Study Procedures.** Manitoba Hydro shall use due diligence to complete the Interconnection Evaluation Study and Interconnection Evaluation Study Report within ninety (90) days after receipt of the executed Interconnection Evaluation Study Agreement, the required payment and all relevant technical data, if 1 and Phase 2 are performed concurrently. If Generator

fails to provide such payment and/or all such necessary relevant technical data, Manitoba Hydro shall notify Generator of such deficiencies within seven (7) days of the receipt of the executed Interconnection Evaluation Study Agreement. Generator shall provide Manitoba Hydro with the required payment and/or information within fifteen (15) days after receipt of such notice. If Generator fails to provide the payment and/or information within such fifteen (15)-day period, the Interconnection Request shall be deemed terminated and Manitoba Hydro shall refund the Generator's deposit, less any costs incurred prior to termination of the Interconnection Request.

If Manitoba Hydro is unable to complete the required Interconnection Evaluation Study and Interconnection Evaluation Study Report within such ninety (90)-day period, it shall so notify Generator and provide an estimated completion date along with an explanation of the reasons why additional time is required to complete the Interconnection Evaluation Study and Report. If Generator elects to have Phase 1 and Phase 2 of the Interconnection Evaluation Study performed sequentially, Manitoba Hydro shall provide Generator with a preliminary report on Phase 1 within ninety (90) days after the commencement of Phase 1 of the Interconnection Evaluation Study. Generator shall have fifteen (15) days after receipt of the preliminary report to notify Manitoba Hydro in writing of Generator's election to proceed with Phase 2 and to provide any additional

information and cost reimbursement for the actual costs of the Interconnection Evaluation Study as required by Manitoba Hydro or its Interconnection Request shall be deemed terminated. If Generator elects to have Phase 2 of the Interconnection Evaluation Study performed, Manitoba Hydro shall provide the final report to Generator within ninety (90) days after Generator has notified Manitoba Hydro to proceed with Phase 2 and has provided any additional information and cost reimbursement required by Manitoba Hydro. If Manitoba Hydro is unable to complete either Phase 1 or Phase 2, or both, within the ninety (90)-day period, it shall so notify Generator and provide an estimated completion date along with an explanation of the reasons why additional time is required to complete the Phase or Phases.

**5.5 Standards.** Manitoba Hydro shall use the same due diligence in completing the Interconnection Studies for all Generators.

**5.6 Completion of Interconnection Evaluation Study.** Upon completion of both phases of the Interconnection Evaluation Study, a final report documenting the results of the Interconnection Evaluation Study shall be provided to Generator. The Interconnection Evaluation Study Report shall state the assumptions upon which it is based, identify potential problems that may occur on the System as a result of the proposed interconnection, provide a preliminary identification of any required Transmission Owner Interconnection Facilities and/or Interconnection

System Upgrades and a preliminary non-binding estimate of the costs and time for completion of any required Transmission Owner Interconnection Facilities and/or Interconnection System Upgrades. If Generator has requested that Phase 1 and Phase 2 of the Interconnection Evaluation Study be performed sequentially, the preliminary report on Phase 1 shall show only the results of the power flow analysis. Within fifteen (15) days of receiving the Interconnection Evaluation Study Report, Generator may request and Manitoba Hydro shall provide, subject to appropriate confidentiality arrangements with Generator, supporting documentation for the Interconnection Evaluation Study. Within thirty (30) days of tendering the final Interconnection Evaluation Study Report to the Generator, Manitoba Hydro shall provide Generator with an invoice or statement for any amount by which the actual costs of the Interconnection Evaluation Study and the provision of any supporting documentation requested by Generator exceed or are less than the payment(s) made by the Generator.

**5.7 Posting on OASIS.** Upon completion of the final Interconnection Evaluation Study Report, Manitoba Hydro shall post the final Interconnection Evaluation Study Report on the OASIS used by Manitoba Hydro with the name of the Generator omitted.

**5.8 Meeting.** Manitoba Hydro and Generator shall meet on a mutually agreeable date, but no later than fifteen (15) days after posting the Interconnection

Evaluation Study Report on OASIS, to discuss proceeding with an Interconnection Facilities Study.

**5.9 Re-Study.** Manitoba Hydro shall notify Generator in writing if re-study of the Interconnection Evaluation Study is required due to: (i) a higher queued Interconnection Request changing queue position, terminating or becoming suspended; (ii) modifications to a higher queued Interconnection Request; or (iii) modification of the Point(s) of Interconnection for the subject Interconnection Request. Re-study shall take no longer than ninety (90) calendar days from the date of notice. Within fifteen (15) days after Manitoba Hydro has provided notice to Generator of the need for re-study, Generator and Manitoba Hydro shall meet to discuss the re-study, at which time another Interconnection Evaluation Study Agreement shall be tendered to Generator. If Generator elects to proceed with re-study, Generator shall return the executed Interconnection Evaluation Study Agreement to Manitoba Hydro, with initial payment of any amount by which the estimated cost of the re-study exceeds the Generator's unused deposit, within fifteen (15) days after receipt of the Interconnection Evaluation Study Agreement.

## **6. Interconnection Facilities Study.**

**6.1 Election to Proceed with Interconnection Facilities Study.** Upon receipt of the final Interconnection Evaluation Study Report, Generator shall have thirty (30)

days to either: (i) inform Manitoba Hydro in writing that Generator wishes to suspend its Interconnection Request in accordance with Section 9.3 for a period of up to one calendar year; or (ii) inform Manitoba Hydro of its request for an Interconnection Facilities Study and to: (a) pay any amount invoiced; or (b) direct Manitoba Hydro to either refund any amounts owed to Generator or to credit said amounts to the estimated cost of performing an Interconnection Facilities Study. If Generator fails to respond and make payment in full as required by this Section within thirty (30) days, Generator's queue position will be forfeited and its Interconnection Request shall be deemed terminated. Within fifteen (15) days after receipt of a request for an Interconnection Facilities Study, Manitoba Hydro shall respond with an Interconnection Facilities Study Agreement in the form of Attachment 3 that includes a non-binding estimated cost to Generator for Manitoba Hydro to conduct the Interconnection Facilities Study and prepare an Interconnection Facilities Study Report. If Generator elects to proceed with the Interconnection Facilities Study, Generator shall execute the Interconnection Facilities Study Agreement and return it to Manitoba Hydro, with evidence of Site Control and an initial payment of the estimated cost of the Interconnection Facilities Study, less any unused deposit, within fifteen (15) days after receipt of the Interconnection Facilities Study Agreement. If Generator does not provide the executed Interconnection Facilities Study Agreement, evidence of



Site Control and the required payment to Manitoba Hydro within such fifteen (15) day period: (1) Generator's queue position shall be forfeited and its Interconnection Request shall be deemed terminated; (2) Manitoba Hydro shall refund any amounts that were to be credited to Generator pursuant to this Section 6.1.

**6.2 Scope of Interconnection Facilities Study.** Upon receipt of an executed Interconnection Facilities Study Agreement, evidence of Site Control and initial payment required to perform the Interconnection Facilities Study and prepare the Interconnection Facilities Study Report, an Interconnection Facilities Study shall be carried out by, or on behalf of, Manitoba Hydro and Manitoba Hydro shall use Reasonable Efforts to coordinate the Interconnection Facilities Study with any adjacent Transmission Operators and Affected Transmission Owners to determine the work required to effect the physical and electrical connection of the proposed Facility at the Point(s) of Interconnection or to otherwise accommodate the Interconnection Request and to address, in accordance with Good Utility Practice, reliability problems identified in the Interconnection Evaluation Study. The electrical switching configuration of the connection equipment, including without limitation, transformer, switchgear and other station equipment, and required transmission lines, if any, will be determined as part of the Interconnection Facilities Study. The Interconnection Facilities Study shall also identify any

Interconnection System Upgrades that must be constructed pursuant to higher queued Interconnection Requests and any future transmission expansion plans of Manitoba Hydro that must be advanced or in place to accommodate the Interconnection Request. Good faith cost estimates for Transmission Owner Interconnection Facilities and Interconnection System Upgrades necessary to accommodate the Interconnection Request and the time required to complete construction of Transmission Owner Interconnection Facilities and Interconnection System Upgrades will also be determined as part of the Interconnection Facilities Study. The Interconnection Facilities Study shall be performed in accordance with Good Utility Practice, including NERC planning standards (to the extent legally binding in Manitoba), applicable regional reliability requirements and planning standards and practices of Manitoba Hydro. Manitoba Hydro shall apply the same standards to all generator interconnects, including those of Manitoba Hydro and its affiliates. The Interconnection Facilities Study shall not include any analysis of the work required to construct or an estimate of the cost of Generator Interconnection Facilities. Generator shall determine the work and costs to construct Generator Interconnection Facilities in accordance with the requirements of Manitoba Hydro's Transmission System Interconnection Requirements.

**6.3 Engineering and Procurement Agreement.** Upon Generator's execution of an Interconnection Facilities Study Agreement, Manitoba Hydro may offer to provide to Generator an Engineering and Procurement Agreement in the form of Attachment 4 which authorizes Manitoba Hydro to begin specified engineering, design and siting activities and procurement of long lead-time items necessary for the establishment of the interconnection. The Engineering and Procurement Agreement is an optional procedure that may be elected by Generator if it desires to accelerate the interconnection process and, if elected, will not alter Generator's queue position. The Engineering and Procurement Agreement shall require Generator to pay the cost of all activities authorized by Generator by way of advance payments and to provide adequate assurance of creditworthiness to Manitoba Hydro. No construction activities shall be undertaken pursuant to the Engineering and Procurement Agreement.

**6.4 Completion of the Interconnection Facilities Study.** Upon receipt of an executed Interconnection Facilities Study Agreement, evidence of Site Control and the required payment to perform the Interconnection Facilities Study, Manitoba Hydro shall use due diligence to complete the required Interconnection Facilities Study and issue a preliminary Interconnection Facilities Study Report to Generator within ninety (90) days. If Manitoba Hydro is unable to complete the Interconnection Facilities Study and issue a preliminary Interconnection Facilities

Study Report within such ninety (90) days, Manitoba Hydro shall notify Generator and provide an estimate of the time needed to reach a final determination along with an explanation of the reasons that additional time is required to complete the Interconnection Facilities Study and issue a preliminary Interconnection Facilities Study Report. Generator shall have thirty (30) days after receipt of the preliminary Interconnection Facilities Study Report to: (i) provide written comments to Manitoba Hydro for its consideration for inclusion in the final Interconnection Facilities Study Report; and (ii) advise Manitoba Hydro which one of the interconnection options contained in the preliminary Interconnection Facilities Study Report, if any, the Generator wishes to pursue. Within fifteen (15) days after the receipt of such comments, if any, and confirmation of the selected option, or (if no options are provided) the expiration of such thirty (30) day period without the receipt of any comments, Manitoba Hydro shall issue the final Interconnection Facilities Study Report provided that Manitoba Hydro, in the reasonable exercise of its discretion, may extend such fifteen (15)-day period if such comments require the performance of additional studies or other significant modifications prior to the issuance of the final Interconnection Facilities Study Report. Manitoba Hydro shall provide Generator with a good faith estimate of the duration of such time extension. When completed, the final Interconnection Facilities Study Report shall include a good

faith estimate of (i) the total costs to be charged to Generator for Transmission Owner Interconnection Facilities and Interconnection System Upgrades; (ii) a monthly schedule of payments to be made by Generator; and (iii) the time required to complete engineering and construction and initiate the requested Interconnection Service, as outlined in a construction schedule mutually agreed to between Generator and Manitoba Hydro. Within thirty (30) days of completion of the Interconnection Facilities Study Report, Generator may request and Manitoba Hydro shall provide, subject to appropriate confidentiality arrangements with Generator, supporting documentation for or explanatory comments related to the Interconnection Facilities Study.

**6.5 Posting on OASIS.** Upon completion of the final Interconnection Facilities Study Report, Manitoba Hydro shall post the Interconnection Facilities Study Report on the OASIS used by Manitoba Hydro with the name of the Generator omitted.

**6.6 Payment or Credit for Study Costs.** Within sixty (60) days of completion of the final Interconnection Facilities Study Report, Manitoba Hydro shall issue a statement to Generator for any amounts owing by or to Generator for any difference between the actual and estimated costs of performing the Interconnection Facilities Study, preparation of the associated Report and providing any explanatory comments or supporting documentation requested by

Generator. At the direction of the Generator, any amounts owing to Generator may be credited to the amounts payable by Generator pursuant to an Interconnection and Operating Agreement. Amounts owing by or to Generator shall be due and payable or subject to credit in accordance with the terms of the Interconnection Facilities Study Agreement. Failure by Generator to make such payment when due shall result in termination of the Interconnection Request.

**6.7 Meeting.** Manitoba Hydro and Generator shall meet on a mutually agreeable date, but no later than fifteen (15) days after posting of the Interconnection Facilities Study Report on OASIS, to discuss proceeding to an Interconnection and Operating Agreement.

**6.8 Re-Study.** Manitoba Hydro shall notify Generator in writing if re-study of the Interconnection Facilities Study is required due to: (i) a higher queued Interconnection Request changing queue position, terminating or becoming suspended; (ii) modifications to a higher queued Interconnection Request; or (iii) modification of the Point(s) of Interconnection for the subject Interconnection Request. Re-study shall take no longer than ninety (90) calendar days from the date of notice, unless re-study of the Interconnection Evaluation Study is also required, in which case re-study shall take no longer than one hundred and eighty (180) calendar days from the date of notice. Within fifteen (15) days after Manitoba Hydro has provided notice of the need for re-study, Generator and

Manitoba Hydro shall meet to discuss the re-study, at which time another Interconnection Facilities Study Agreement shall be tendered to Generator. If Generator elects to proceed with the re-study, Generator shall return the executed Interconnection Facilities Study Agreement to Manitoba Hydro with initial payment of the estimated cost of the re-study within fifteen (15) days after receipt of the Interconnection Facilities Study Agreement.

## **7. Group Studies and Resource Solicitation Studies.**

### **7.1 Group Studies.**

**7.1.1 General.** Consistent with Good Utility Practice, Interconnection Requests may be studied individually or in groups. For the purpose of any of the Interconnection Studies, a Group Study may be performed if Manitoba Hydro deems a Group Study feasible and the Generators concur. Interconnection Requests for both Energy Resource Interconnection Service and Network Resource Interconnection Service may be part of a Group Study. Group Studies shall be conducted in accordance with the queue position of the highest queued Interconnection Request that is part of the Group Study.

**7.1.2 Conditions.** The following conditions apply to the performance of a Group Study: (1) Generators participating in a Group Study waive the

right to have individual Interconnection Studies performed. (2) A Generator shall not withdraw its Interconnection Request until completion of the Group Interconnection Evaluation Study Report. (3) Generators participating in a Group Study acknowledge that Manitoba Hydro shall be responsible for determining, after consultation with participating Generators, Group Study assumptions related to the treatment of higher queued Interconnection Requests.

**7.1.3 Notice of Group Study.** If Manitoba Hydro deems a Group Study feasible, Manitoba Hydro shall provide written notice containing a general description of Manitoba Hydro's proposal to Generators which are proposed to be included in the Group Study. Generators shall have fifteen (15) days after issuance of the notice to notify Manitoba Hydro in writing of their potential interest in being included in a meeting to discuss the Group Study. Such notification of interest by a Generator to be included in a Group Study meeting shall not bind a Generator to the execution of a Group Study Agreement. For purposes of this Section 7.1.3, written notice shall include electronic mail.

**7.1.4 Group Study Meeting.** If a reasonable number of Generators respond to a proposal for a Group Study, Manitoba Hydro shall convene a meeting



with the Generators in person or by teleconference to discuss the Group Study.

**7.1.5 Study Agreement.** Within thirty (30) days following the Group Study meeting, Manitoba Hydro shall forward a Group Interconnection Evaluation Study Agreement in the form of Attachment 2-A to all Generators participating in a Group Study meeting for execution. The cost of a Group Study shall be borne equally by all participating Generators. Each Generator shall return an executed Group Study Agreement and provide payment of its portion of the estimated costs to Manitoba Hydro, less Generator's initial deposit, within fifteen (15) days of receiving the Group Study Agreement, failing which the Generator will not be eligible to participate in the Group Study.

**7.1.6 Revision or Termination.** A Group Study proposal may be revised or terminated if all proposed Generators do not execute the Group Interconnection Evaluation Study Agreement.

**7.1.7 Group Interconnection Evaluation Study and Report.** A Group Interconnection Evaluation Study shall be conducted in accordance with Good Utility Practice to assess the impact of the Interconnection Requests on the reliability of the System and the systems of adjacent Transmission Operators and Affected Transmission Owners. A Group Interconnection

Evaluation Study will not assess the adequacy of a Generator's proposed Facilities or the proposed Generator Interconnection Facilities. A Group Interconnection Evaluation Study shall be conducted in one phase rather than two phases and shall consist of a power flow analysis, short circuit analyses, and a stability analysis as specified in Section 5.3 of this Tariff. Notwithstanding Section 5.4 of this Tariff, Manitoba Hydro shall use due diligence to complete the required Group Study and provide a Group Study Report to Generators within one hundred and eighty (180) days of the deadline for receiving all executed Group Interconnection Evaluation Study Agreements. The Group Interconnection Evaluation Study Report shall state the assumptions upon which it is based and identify potential problems that may occur on the System as a result of the proposed interconnection. Upon completion of the Group Interconnection Evaluation Study Report, a Generator may request and Manitoba Hydro shall provide, subject to appropriate confidentiality arrangements with Generator, supporting documentation for the Group Interconnection Evaluation Study. At the time of tendering the Group Interconnection Evaluation Study Report to a Generator, Manitoba Hydro shall provide Generator with an invoice or statement for any amount by which the Generator's portion of the actual costs of the Group Interconnection

Evaluation Study exceed or are less than the initial deposit made by the Generator.

**7.1.8 Posting on OASIS.** Upon completion of a Group Interconnection Evaluation Study Report, Manitoba Hydro shall post the Group Interconnection Evaluation Study Report to the OASIS used by Manitoba Hydro with the name of the Generators omitted.

**7.1.9 Election to Proceed with Group Interconnection Facilities Study.** Upon receipt of the Group Interconnection Evaluation Study Report, Generators participating in a Group Study shall have thirty (30) days to inform Manitoba Hydro of their request for a Group Interconnection Facilities Study and to: (i) pay any amount invoiced; (ii) direct Manitoba Hydro to either refund any amounts owed to Generator for the Group Interconnection Evaluation Study or to credit said amounts to the estimated cost of performing a Group Interconnection Facilities Study. If a Generator participating in a Group Study fails to respond and make payment in full as required by this Section within thirty (30) days, Generator's queue position will be forfeited and its Interconnection Request shall be deemed terminated. Within forty-five (45) days after issuing a Group Interconnection Evaluation Study Report, if sufficient Generators request a Group Interconnection Facilities Study, Manitoba

Hydro shall respond with a Group Interconnection Facilities Study Agreement in the form of Attachment 3-A that includes a non-binding estimated cost to Generators for Manitoba Hydro to conduct the Group Interconnection Facilities Study and prepare a Group Interconnection Facilities Study Report. Generators participating in a Group Interconnection Facilities Study shall share equally in the costs of the Group Study and Group Study Report. If Generator elects to proceed with the Group Interconnection Facilities Study, Generator shall execute the Group Interconnection Facilities Study Agreement and return it with an initial payment of Generator's portion of the estimated cost of the Group Interconnection Facilities Study, less any unused deposit, to Manitoba Hydro within fifteen (15) days after receipt of the Group Interconnection Facilities Study Agreement. If a Generator does not provide the executed Group Interconnection Facilities Study Agreement and the required payment to Manitoba Hydro within such fifteen (15) day period: (1) Generator's queue position shall be forfeited and its Interconnection Request shall be deemed terminated; (2) Manitoba Hydro shall refund any amounts that were to be credited to Generator towards the performance of a Group Interconnection Facilities Study. If, in Manitoba Hydro's sole discretion, an insufficient number of Generators agree to proceed with a

Group Interconnection Facilities Study, Manitoba Hydro shall not be obligated to perform a Group Study, but shall offer to perform an individual Interconnection Facilities Study for each Generator that executed the Group Interconnection Facilities Study Agreement.

**7.1.10 Scope of Group Interconnection Facilities Study.** Upon receipt of all executed Group Interconnection Facilities Study Agreements and initial payment by all Generators participating in the Group Study to perform the Group Interconnection Facilities Study and prepare the Group Interconnection Facilities Study Report, a Group Interconnection Facilities Study shall be carried out by, or on behalf of, Manitoba Hydro. Manitoba Hydro shall use Reasonable Efforts to coordinate the Group Interconnection Facilities Study with any adjacent Transmission Operators and Affected Transmission Owners to determine the work required to effect the physical and electrical connection of the proposed Facilities at the Point(s) of Interconnection or to otherwise accommodate the Interconnection Requests and to address, in accordance with Good Utility Practice, reliability problems identified in the Group Interconnection Evaluation Study. The electrical switching configuration of the connection equipment, including without limitation, transformer, switchgear and other station equipment, and required transmission lines, if

any, will be determined as part of the Group Interconnection Facilities Study. Good faith estimates for the total costs to construct the Transmission Owner Interconnection Facilities and Interconnection System Upgrades necessary to accommodate the Interconnection Requests, as well as the individual cost allocation for each Generator pursuant to Section 7.1.12, and the time required to complete construction of Transmission Owner Interconnection Facilities and Interconnection System Upgrades will also be determined as part of the Group Interconnection Facilities Study. The Group Interconnection Facilities Study shall be performed in accordance with Good Utility Practice, including NERC planning standards (to the extent legally binding in Manitoba), applicable regional reliability requirements and planning standards and practices of Manitoba Hydro. Manitoba Hydro shall apply the same standards to all generator interconnections, including those of Manitoba Hydro and its affiliates. The Group Interconnection Facilities Study shall not include any analysis of the work required to construct or an estimate of the cost of Generator Interconnection Facilities. Generators shall determine the work and costs to construct Generator Interconnection Facilities in accordance with the requirements of Manitoba Hydro's Transmission System Interconnection Requirements.

**7.1.11 Group Interconnection Facilities Study Report.** Manitoba Hydro shall use due diligence to complete the required Group Interconnection Facilities Study and issue a preliminary Group Interconnection Facilities Study Report to Generators within one hundred and eighty (180) days of receiving all executed Group Study Agreements and required payments. If Manitoba Hydro is unable to complete the Group Interconnection Facilities Study and issue a preliminary Group Interconnection Facilities Study Report within such one hundred and eighty (180) days, Manitoba Hydro shall notify the Generators and provide an estimate of the time needed to reach a final determination along with an explanation of the reasons that additional time is required to complete the Group Interconnection Facilities Study and issue a preliminary Group Interconnection Facilities Study Report. Generators shall have thirty (30) days after receipt of the preliminary Group Interconnection Facilities Study Report to provide written comments to Manitoba Hydro for its consideration for inclusion in the final Group Interconnection Facilities Study Report. Within fifteen (15) days after the receipt of such comments or notifications from Generators that they do not have comments, or the expiration of such thirty (30) day period without the receipt of any comments, Manitoba Hydro shall issue the final Group Interconnection

Facilities Study Report provided that Manitoba Hydro, in the reasonable exercise of its discretion, may extend such fifteen (15)-day period if such comments require the performance of additional studies or other significant modifications prior to the issuance of the final Group Interconnection Facilities Study Report. Manitoba Hydro shall provide Generators with a good faith estimate of the duration of such time extension. When completed, the final Group Interconnection Facilities Study Report shall include a good faith estimate of (i) the costs to be charged to each Generator for Transmission Owner Interconnection Facilities and Interconnection System Upgrades as determined pursuant to Section 7.1.12 and (ii) the time required to complete engineering and construction and initiate the requested Interconnection Service. Upon completion of the Group Interconnection Facilities Study Report, Generators may request and Manitoba Hydro shall provide, subject to appropriate confidentiality arrangements with Generators, supporting documentation for the Group Interconnection Facilities Study.

**7.1.12 Interconnection Facility Costs.** The determination of cost responsibility for common facilities necessary to accommodate two or more Interconnection Requests participating in a Group Study may depend on factors other than Queue Position. Manitoba Hydro shall determine the



appropriate allocation of the costs for Transmission Owner Interconnection Facilities and Interconnection System Upgrades between Generators participating in a Group Study based on: (a) each Facility's relative use of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades; and (b) the impact of each Generator's Facility on the System. Disputes regarding whether Manitoba Hydro has appropriately applied such factors to a particular cost allocation shall be resolved pursuant to Section 20 of this Tariff.

**7.1.13 Posting on OASIS.** Upon completion of the final Group Interconnection Facilities Study Report, Manitoba Hydro shall post the Group Interconnection Facilities Study Report on the OASIS used by Manitoba Hydro with the names of the Generators omitted.

## **7.2 Resource Solicitation Study.**

**7.2.1 Conditions for Study.** Manitoba Hydro shall perform a single Resource Solicitation Study for all Interconnection Requests submitted in response to a particular Resource Solicitation Process. All Interconnection Requests submitted in response to a Resource Solicitation Process must meet the following criteria: the solicitor must: (a) be authorized by the Generators participating in the solicitation to act as the agent for all the

Interconnection Requests submitted by Generators to the solicitor, (b) maintain valid Interconnection Requests, (c) submit all Interconnection Requests at the same time, to ensure simultaneous queue positions for all such Interconnection Requests, (d) submit a reasonable number of study scenarios (i.e., a mixture of projects meeting the requirements of the solicitation that are studied in parallel), (e) select one scenario prior to the start of the Interconnection Facilities Study; and (f) ensure that, with respect to any modifications pursuant to Section 9.1 to the Interconnection Requests comprising the scenario, the location of the Point(s) of Interconnection are not changed.

**7.2.2 Processing of Resource Solicitation Requests.** Sections 3.5, 3.6, 4.1, 4.4, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, (s.5.8, 5.9) 9.1 and 9.2 of this Tariff shall apply to Interconnection Requests submitted in response to a Resource Solicitation Process, except as follows:

- a) Subject to Section 7.2.4, all rights and obligations of the Generator arising under this Tariff shall accrue to or be binding upon the solicitor for the Resource Solicitation Process rather than the individual Generator until such time as the Interconnection Facilities Study Report is provided to the solicitor;

- b) An Interconnection Evaluation Study that is conducted as a Resource Solicitation Study shall be conducted in one phase rather than two phases;
- c) Notwithstanding Section 5.4, Manitoba Hydro shall complete an Interconnection Evaluation Study that is conducted as a Resource Solicitation Study and provide the Resource Solicitation Study Report to the solicitor within one hundred and eighty (180) days of receiving the executed Interconnection Evaluation Study Agreement and any additional cost reimbursement. If Manitoba Hydro is unable to complete the Interconnection Evaluation Study within this time period, it shall notify the solicitor and provide an estimated completion date along with an explanation of the reasons why additional time is required.
- d) Within sixty (60) days of receiving the Resource Solicitation Study Report, the solicitor for the Resource Solicitation Process shall either:
  - (i) notify Manitoba Hydro of the successful Generator(s);
  - or
  - if a successful Generator has not been selected within that time period,

- (ii) provide Manitoba Hydro with a written notice of suspension of the study process for a maximum of one calendar year. If the solicitor provides a written notice of suspension:
- (i) Manitoba Hydro shall not proceed with performance of the Interconnection Facilities Study for the solicitor, but shall proceed with performance of Interconnection Studies for lower queued Interconnection Requests until such time as the solicitor for the Resource Solicitation Process notifies Manitoba Hydro in writing of the successful Generator(s);
  - (ii) Manitoba Hydro shall complete any Interconnection Studies of lower queued Interconnection Requests which were commenced prior to such notification before commencing the Interconnection Facilities Study for the solicitor; and
  - (iii) the solicitor shall notify Manitoba Hydro of the successful Generator(s) on or before the final day of the one calendar year suspension. Upon receipt of such notice by Manitoba Hydro, the Interconnection Requests of unsuccessful Generators that were submitted in response to the Resource Solicitation Process shall be deemed terminated. In the event that the

solicitor fails to notify Manitoba Hydro of the successful Generator(s) within the period described herein, the Interconnection Requests submitted by the solicitor pursuant to Section 7.2.1 shall terminate on the day following the one calendar year suspension.

The solicitor for the Resource Solicitation Process acknowledges that an additional Resource Solicitation Study may need to be performed at solicitor's expense, due to changing circumstances arising during the period of suspension.

If Manitoba Hydro deems it necessary to perform an additional Resource Solicitation Study due to changed circumstances, Manitoba Hydro shall provide solicitor with a new Resource Solicitation Study Agreement within thirty (30) days of receiving notice in accordance with this Section 7.2.2(d) and, with the exception of the notice period in Section 5.1, the provisions of this Section 7.2.2 shall apply mutatis mutandis to the additional Resource Solicitation Study.

- e) The Interconnection Facilities Study shall be performed in queue order, but Manitoba Hydro shall not be obligated to complete the

Interconnection Facilities Study and provide the Interconnection Facilities Study Report to the solicitor within one hundred and eighty (180) days of execution of the Interconnection Facilities Study Agreement by the solicitor. Manitoba Hydro shall provide the Resource Solicitation Study Report to the solicitor as soon as reasonably practicable, taking into account the scope of the Resource Solicitation Study.

- f) All communications with the Generator regarding processing of its Interconnection Request shall be the responsibility of the solicitor until such time as the Interconnection Facilities Study Report has been provided to the solicitor.

**7.2.3 Right to Suspend a Pre-Existing Interconnection Request.** An Eligible Generator shall have the right to suspend the processing of an Interconnection Request that was filed prior to the initiation of a Resource Solicitation Process in accordance with the following terms:

- (a) Manitoba Hydro shall, within thirty (30) days of a Resource Solicitation Process having been initiated by the solicitor, notify each Eligible Generator in writing that such Eligible Generator has the option, exercisable by written direction to Manitoba Hydro within thirty (30) days of such notification, to suspend the

processing of its Interconnection Request which was filed prior to the initiation of a Resource Solicitation Process.

- (b) If an Eligible Generator elects not to suspend its Interconnection Request, the Eligible Generator's Interconnection Request shall be processed in its queue position and the Eligible Generator shall be responsible for all Interconnection Study costs associated with its non-Resource Solicitation Process-related Interconnection Request.
- (c) If an Eligible Generator directs Manitoba Hydro to suspend the processing of its Interconnection Request in accordance with paragraph 7.2.3(a), such Eligible Generator's Interconnection Request shall, subject to as hereinafter provided, be placed in suspension until such time as the Generator reactivates its Interconnection Request pursuant to Section 7.2.5.
- (d) If an Eligible Generator directs Manitoba Hydro to suspend its Interconnection Request in accordance with this Section 7.2.3, Manitoba Hydro shall, subject to the terms hereof, proceed with the performance of Interconnection Studies for lower queued Interconnection Requests.

- (e) If an Eligible Generator suspends its Interconnection Request in accordance with the terms hereof, the Eligible Generator acknowledges that Interconnection Studies may need to be re-conducted at the Eligible Generator's expense, due to the processing of lower queued Interconnection Requests and there may be changes to Interconnection System Upgrades and Transmission Owner Interconnection Facilities required.

**7.2.4 Automatic Suspension of Interconnection Requests.**

Immediately upon the solicitor submitting the Interconnection Requests in accordance with Section 7.2.1 identifying to Manitoba Hydro those Generators that will be participating in the Resource Solicitation Study, the processing of all such participating Eligible Generators' individual Interconnection Requests, that have not already been suspended pursuant to Section 7.2.3, shall be automatically suspended until reactivation by Generator in accordance with Section 7.2.5. Manitoba Hydro shall provide written confirmation to Generators of such automatic suspension of their Interconnection Request.

**7.2.5 Reactivation of Suspended Interconnection Requests.**



- (a) Upon receiving an executed Interconnection Evaluation Study Agreement from the solicitor in accordance with Section 5.2 and Section 7.2.2, Manitoba Hydro shall provide notice to each Eligible Generator, whose individual Interconnection Request has been suspended pursuant to Sections 7.2.3 or 7.2.4, but whose Resource Solicitation Process-related Interconnection Request has not been selected by the solicitor for study, that the Eligible Generator must, within thirty (30) days of issuance of said notice, provide Manitoba Hydro with written direction to reactivate its Interconnection Request, failing which the Eligible Generator's suspended Interconnection Request shall terminate.
- (b) Upon receiving an executed Interconnection Facilities Study Agreement and the required payment from the Generator in accordance with Section 6.1, Manitoba Hydro shall provide notice to each Eligible Generator whose individual Interconnection Request remains suspended pursuant to Sections 7.2.3 or 7.2.4, but whose Resource Solicitation Process-related Interconnection Request has not been selected by the solicitor for study, that the Eligible Generator must, within thirty (30) days of issuance of said notice, provide Manitoba Hydro with written direction to reactivate

its Interconnection Request, failing which the Eligible Generator's suspended Interconnection Request shall terminate.

- (c) Upon receiving an executed Interconnection and Operating Agreement from the successful Generator(s) in the Resource Solicitation Process, Manitoba Hydro shall provide notice to each unsuccessful Eligible Generator whose individual Interconnection Request remains suspended pursuant to Sections 7.2.3 or 7.2.4, that the Eligible Generator must, within thirty (30) days of issuance of said notice, provide Manitoba Hydro with written direction to reactivate its Interconnection Request, failing which the Eligible Generator's suspended Interconnection Request shall terminate.
- (d) Upon receipt of such notice to reactivate from the Eligible Generator, Manitoba Hydro shall resume processing the Eligible Generator's Interconnection Request in relative queue order.
- (e) Following the thirty day period referred to in Sections 7.2.5(a), (b) and (c) respectively, Manitoba Hydro shall update the queue.
- (f) Manitoba Hydro shall complete any Interconnection Studies of lower queued Interconnection Requests which were commenced prior to the notification by the Eligible Generator of its intention to reactivate its Interconnection Request;

- (g) If, after receiving direction from an Eligible Generator to reactivate its Interconnection Request, Manitoba Hydro deems it necessary to perform any additional Interconnection Studies, Manitoba Hydro shall provide Eligible Generator with an Interconnection Study Agreement within thirty (30) days of receiving direction to reactivate. With the exception of the notice period in Section 5.1, the provisions of Section 5 and Section 6 of this Tariff shall apply mutatis mutandis to the additional Interconnection Study.

## **8. Interconnection and Operating Agreement.**

- 8.1 Tender.** Within thirty (30) days after issuance of the final Interconnection Facilities Study Report to Generator, Generator shall either: (i) provide written notice to Manitoba Hydro to suspend its Interconnection Request for a period of up to one calendar year in accordance with Section 9.3; or (ii) withdraw its Interconnection Request in accordance with Section 9.2; or (iii) proceed with its Interconnection Request in accordance with this Section 8.1. If Generator wishes to proceed with execution of an Interconnection and Operating Agreement, Generator shall provide Manitoba Hydro with the following: (i) payment in the amount of \$5,000.00; (ii) evidence of continued Site Control; and (iii) evidence that one or more of the following milestones has been achieved: (a) execution of

a contract for the supply or transportation of fuel to the Facility; (b) execution of a contract for the supply of cooling water; (c) execution of a contract for the sale of electric energy or capacity from the Facility; (d) application for an air, water or land use permit; or (e) execution of a contract for construction of the Facility; (iv) all information requested by Manitoba Hydro that is reasonably necessary to complete a draft Interconnection and Operating Agreement. Within ninety (90) days after meeting these requirements, Manitoba Hydro shall tender to Generator a final draft of the Interconnection and Operating Agreement. If the Interconnection Request relates to a new interconnection, the final draft of the Interconnection and Operating Agreement shall be in the form of the *pro forma* Interconnection and Operating Agreement included in this Tariff as Attachment 5 with blanks and appendices completed with information available to Manitoba Hydro. Notwithstanding Section 1.1.22, if the Interconnection Request relates to a capacity addition or Substantial Modification to or a conversion of Interconnection Service related to an existing facility, the Interconnection and Operating Agreement tendered by Manitoba Hydro may take the form of amendments to an existing Interconnection and Operating Agreement or Attachment 5 may be modified to reflect the nature of the Interconnection Request. Appendices developed for the final draft of the Interconnection and Operating Agreement or amendments thereto will contain provisions that address

the unique characteristics of the Facility, the Generator Interconnection Facilities, Transmission Owner Interconnection Facilities, Interconnection System Upgrades and the Point(s) of Interconnection.

**8.2 Execution.** To retain the queue position of its Interconnection Request, within thirty (30) days following Manitoba Hydro's tender of the final draft of the Interconnection and Operating Agreement, Generator must execute two (2) and return one (1) original of the tendered Interconnection and Operating Agreement. Failure to execute and return the Interconnection and Operating Agreement in accordance with this Section 8.2 shall result in termination of the Generator's Interconnection Request.

**8.3 Application to Group Studies and Resource Solicitation Studies.** Sections 8.1 and 8.2 shall apply mutatis mutandis to:

- a) the tendering and execution of an Interconnection and Operating Agreement by each Generator participating in a Group Study with the exception that Generators participating in a Group Study do not have the right to suspend their Interconnection Requests unless all Generators participating in the Group Study agree to do so;
- b) the tendering and execution of an Interconnection and Operating Agreement by each successful Generator participating in a Resource Solicitation Study, except that Manitoba Hydro shall tender the final draft of the Interconnection

and Operating Agreement to the applicable Generators within a reasonable period of time, taking into account the number of Generators.

**9. Modification, Withdrawal and Suspension of Interconnection Requests.**

**9.1 Modifications.** Generator may submit to Manitoba Hydro modifications to any information provided in the Interconnection Request. In such event Generator shall retain its queue position only if the modifications, in the judgment of Manitoba Hydro, do not materially affect its Interconnection Request, the results of its Interconnection Evaluation Study or Interconnection Facilities Study, and/or the results of the Interconnection Evaluation Study or Interconnection Facilities Study performed with regard to any other Interconnection Request in the queue. Prior to making such modifications, Generator may request that Manitoba Hydro determine in writing whether the modifications would have such a material affect.

**9.2 Withdrawal.** Generator may withdraw its Interconnection Request at any time provided that Generator shall pay to Manitoba Hydro all costs incurred by Manitoba Hydro prior to Manitoba Hydro's receipt of notice of such withdrawal. In the event of such withdrawal, Manitoba Hydro, subject to the provisions of Section 11.1 of this Tariff, shall provide Generator with all information developed by Manitoba Hydro for the purpose of completing any study required with regard

to the Interconnection Request if the final study report has not been delivered to Generator.

**9.3 Suspension.** A Generator may provide written notice to suspend its Interconnection Request pursuant to Section 6.1 or Section 8.1, provided that a Generator shall only have the right to suspend a given Interconnection Request once pursuant to Section 6.1 and once pursuant to Section 8.1, regardless of whether supplemental Interconnection Study Reports are issued as a result of Restudies. Upon receiving such notice, Manitoba Hydro shall suspend the Generator's Interconnection Request and proceed with processing lower queued Interconnection Requests, subject to the following conditions:

- (i) Generator shall pay in full all costs incurred for the processing of the Interconnection Request prior to the date of suspension;
- (ii) Generator acknowledges that Interconnection Studies may need to be reconducted, which shall be at Generator's expense, due to the processing of lower queued Interconnection Requests and that there may be changes to Interconnection System Upgrades and Transmission Owner Interconnection Facilities;
- (iii) Generator may reactivate a suspended Interconnection Request at any time during the suspension period on written notice to Manitoba Hydro, at which time the queue shall be updated. As of the date of said reactivation

notice, Manitoba Hydro shall recommence processing of the Interconnection Request in relative queue order, except that Manitoba Hydro shall first complete any Interconnection Studies of lower queued Interconnection Requests that were commenced during the period of suspension.

- (iv) Failure to reactivate prior to the end of the period of suspension shall result in termination of the Interconnection Request.
- (v) If Manitoba Hydro deems it necessary to perform additional Interconnection Studies for a reactivated Interconnection Request, Manitoba Hydro shall provide Generator with an Interconnection Study Agreement within thirty (30) days of receiving notice to reactivate.
- (vi) Except for the notice period in Section 5.1, the provisions of Section 5 and Section 6 of this Tariff shall apply mutatis mutandis to the additional Interconnection Study.



**10. Construction of Interconnection Facilities and Interconnection System Upgrades.**

**10.1 Schedule.** Manitoba Hydro and Generator shall negotiate in good faith to agree to a schedule acceptable to each for the construction of the Interconnection Facilities and the Interconnection System Upgrades.

**10.2 Construction Sequencing.** In general, the In-Service Date of the Transmission Owner Interconnection Facilities required for an Interconnection Request shall determine the sequence of construction of Transmission Owner Interconnection Facilities and Interconnection System Upgrades.

**10.3 Advance Construction of Facilities.** In order to achieve a proposed In-Service Date, a Generator with an executed Interconnection and Operating Agreement may request that Manitoba Hydro advance the completion of Interconnection System Upgrades or facilities that are part of Manitoba Hydro's transmission expansion plan that: (i) were assumed in the Interconnection Studies of such Generator; (ii) are necessary to support the proposed In-Service Date; (iii) would not otherwise be completed in time to support the proposed In-Service Date; and (iv) are the responsibility of either: (a) another Generator pursuant to an executed Interconnection and Operating Agreement or (b) Manitoba Hydro, pursuant to a transmission expansion plan.

**10.4 Advancement Costs.** Upon request by a Generator for advancement of facilities pursuant to Section 10.3 of this Tariff, Manitoba Hydro shall use Reasonable

Efforts to advance construction of such Interconnection System Upgrades or facilities that are part of Manitoba Hydro's transmission expansion plan to accommodate such request, provided that Generator pays Manitoba Hydro: (i) for Interconnection System Upgrades or facilities that are the responsibility of Manitoba Hydro, the full design, construction and installation costs, including, administrative overheads, plus, for the period of advancement, the operating, maintenance and associated administrative overhead costs; and (ii) if the Interconnection System Upgrades are the responsibility of another Generator, the full costs of designing, constructing, installing, operating and maintaining the Interconnection System Upgrades or facilities. Manitoba Hydro shall amend the Interconnection and Operating Agreement of the Generator who previously committed to pay for such Interconnection System Upgrades or facilities so as to relieve said Generator of its former obligations with respect to the costs of such advanced Interconnection System Upgrades or facilities.

**10.5 Refunds and Credits for Advanced Facilities.** A Generator who advances Interconnection System Upgrades that are part of Manitoba Hydro's transmission expansion plan shall be entitled to a lump sum refund equal to the depreciated value of the advanced Interconnection System Upgrades as at the date of refund, payable within thirty (30) days of the date when the costs of said facilities are included in Manitoba Hydro's retail electricity rates. A Generator who advances

Interconnection System Upgrades that were the responsibility of another Generator shall not be entitled to a refund but shall be entitled to transmission credits in a sum equal to the depreciated value of the Interconnection System Upgrades in accordance with Section 11.2.

## **11. Miscellaneous.**

**11.1 Release of Confidential Information.** Subject to Section 11.1.4, neither Manitoba Hydro nor Generator (“Party”) shall release or disclose Confidential Information to any other person, except to its Affiliates (subject to Manitoba Hydro’s Standards of Conduct restrictions), employees, contractors, consultants, or to parties who may be or are considering providing financing to or equity participation with Generator, or to potential purchasers or assignees of Generator. Such disclosure or release shall be on a need-to-know basis (in connection with these procedures) only and shall not be made unless such person has first been advised of the confidentiality provisions of this Section and has agreed in writing to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section.

**11.1.1** Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential. Notwithstanding the foregoing, Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (4) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or breach of the Interconnection and Operating Agreement with the disclosing Party. Information designated as Confidential Information will no longer be deemed Confidential Information if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

**11.1.2 Rights.** Each Party retains all rights, title and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Party of Confidential Information shall not be

deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

**11.1.3 Use of Confidential Information.** Each Party may use Confidential Information provided by the other Party solely to fulfill its obligations to the other Party under this Tariff or its regulatory requirements.

**11.1.4 Order of Disclosure.** If a court or a government authority or entity with the right, power, and apparent authority to do so requests or requires either Party, by subpoena, oral examination, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirement(s) so that the other Party may seek an injunction or other protection or waive compliance with the terms of this Tariff. Notwithstanding the absence of an injunction or other protection or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party shall use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

**11.1.5 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for the other Party's breach of its obligations under

this Section. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party breaches or threatens to breach its obligations under this Section, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the breach of this Section, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope.

**11.2 Transmission Credits.** Generator shall be entitled to credits towards any costs paid by Generator for Interconnection System Upgrades (excluding any advancement costs that have been refunded pursuant to Section 10.5), for Transmission Service taken from the Point of Interconnection in accordance with the provisions of the Interconnection and Operating Agreement.

**11.3 Subcontractors.** Manitoba Hydro may use the services of such subcontractors, as it deems appropriate, to perform its obligations under this Tariff; provided that Manitoba Hydro shall require its subcontractors to comply with all applicable terms and conditions of this Tariff in providing such services.

**11.4 Must-Run.** Manitoba Hydro may designate one or more units of a Facility as a must-run unit in order to ensure a secure and reliable System under normal operating

and first contingency conditions. This determination shall be made by a Manitoba Hydro study that identifies a substantial unavoidable need for use of the unit or units to support the System and shall be based on projected and actual operating conditions. Must-run units shall not be designated for economic reasons. If a must-run unit determination is made pursuant to this Section 11.4, Generator shall enter into good faith negotiations with Manitoba Hydro in order to determine the terms and conditions, including compensation, for must-run operations of the unit or units, to be set forth in Appendix E to the Interconnection and Operating Agreement.

## **12. Common Service Provisions**

**12.1 Application.** These Common Service Provisions in Section 12 through and including Section 21 shall apply to all requests for Interconnection Service under this Tariff, including any agreements executed pursuant to this Tariff with the exception of an Interconnection and Operating Agreement which shall be governed by its own terms and conditions unless specifically stated otherwise therein.

## **13. Interpretation**

**13.1 Applicable Law.** This Tariff and any Agreements executed hereunder shall be governed by and construed in accordance with the laws of the Province of Manitoba. For greater certainty, The United Nations Convention on Contracts for

the International Sale of Goods as adopted by *The International Sale of Goods Act*, C.C.S.M. c.S11, shall not apply to any Agreements executed hereunder.

**13.2 Condition Precedent.** Manitoba Hydro's obligation to provide studies or other services under this Tariff shall be conditional upon the receipt and continued effectiveness of any regulatory or other approvals required by Canadian law in connection with such services hereunder.

**13.3 Legislative Requirements.** The terms and conditions of this Tariff and any Agreements executed hereunder are subject to decisions, orders, rules and regulations of any regulatory body with jurisdiction over the subject matter of this Tariff and any other Canadian legislative requirements in effect from time to time and this Tariff may be amended without notice in accordance with such decisions, orders, rules, regulations or requirements.

#### **14. Reciprocity**

**14.1 Comparable Interconnection Service.** A Generator receiving Interconnection Service under this Tariff agrees to provide comparable Interconnection Service that it is capable of providing to Manitoba Hydro on similar terms and conditions with respect to facilities used for the transmission of electric energy owned, controlled or operated by the Generator and facilities used for the transmission of electric energy owned, controlled or operated by the Generator's corporate affiliates. A Generator that is a member of a power pool or Regional



Transmission Group also agrees to provide comparable Interconnection Service to the members of such power pool and regional transmission group on similar terms and conditions over facilities used for the transmission of electric energy owned, controlled or operated by the Generator and over facilities used for the transmission of electric energy owned, controlled or operated by the Generator's corporate affiliates. The requirements of this Section may be waived by Manitoba Hydro.

## **15. Billing and Payment**

**15.1 Billing Procedure.** All payments for Interconnection Evaluation Studies, Interconnection Facilities Studies, and goods or services provided pursuant to an Interconnection and Operating Agreement shall be due and payable by Generator in accordance with the terms and conditions of the applicable Agreement executed by Generator pursuant to this Tariff. Unless specified otherwise in an Agreement under this Tariff, all payments shall be made by wire transfer to the bank designated by Manitoba Hydro.

## **15.2 Interest.**

**16.2.1 Interest on Unpaid Balances.** Interest on any unpaid amounts owing pursuant to this Tariff after actual costs have been determined and invoiced shall be calculated daily at the Prime Lending Rate, plus two

percent (2%) per annum, or the maximum rate permitted by law, whichever is less.

**15.3 Generator Deposits.** No interest shall be paid by Manitoba Hydro on monies deposited by a Generator that are applied towards the costs of Interconnection Studies pursuant to Sections 3.1.2, 5.2, 6.1, 7.1.5, 7.1.9 and 7.2.2 of this Tariff. Deposits made by a Generator for the construction of Transmission Owner Interconnection Facilities and Interconnection System Upgrades shall be kept by Manitoba Hydro in an interest-bearing account in Canada. Interest earned shall accrue to the benefit of the Generator in accordance with the terms and conditions of the Interconnection and Operating Agreement with Generator.

**15.4. Currency.** All monetary amounts specified in the Tariff are stated in lawful money of Canada, unless specified otherwise. Unless otherwise agreed, monetary transactions, accounting and cost calculations between the Parties shall be determined and stated in lawful money of Canada. If required for any such monetary transactions, accounting or cost calculation, the rate to be used to convert from the currency of the United States of America to that of Canada for each day shall be the Bank of Canada noon spot exchange rate as published by the Royal Bank of Canada, Winnipeg, Manitoba, Canada, or the last published rate if not published for such day. If any monetary transaction is for a period of time exceeding one day, the weighted average of such noon spot exchange rates for

each day in the respective period of time shall be used. The weighting shall be based in proportion to the dollar value of each day's transaction.

**15.5. Generator Default.** In the event that the Generator fails, for any reason to make payment to Manitoba Hydro on or before the due date as described above, or fails to comply with the requirements of this Tariff, a default by the Generator shall be deemed to exist. Upon the occurrence of a default, the Generator's Interconnection Request shall be automatically terminated.

## **16. Creditworthiness and Insolvency**

**16.1 Creditworthiness.** For the purposes of determining the ability of the Generator to meet its obligations related to services hereunder, Manitoba Hydro may require reasonable credit review procedures. This review shall be made in accordance with standard commercial practices. In addition, Manitoba Hydro may require the Generator to provide and maintain in effect during the term of any Agreement under this Tariff, an unconditional and irrevocable standby letter of credit, in a form acceptable to Manitoba Hydro and the issuing bank, as security to meet its responsibilities and obligations under the Tariff, or an alternative form of security proposed by the Generator and acceptable to Manitoba Hydro and consistent with commercial practices established under the laws of the Province of Manitoba that protects Manitoba Hydro against the risk of non-payment.

**16.2 Insolvency.** If, prior to the execution of an Interconnection and Operating Agreement, Generator: (i) is adjudicated bankrupt; or (ii) files a voluntary petition in bankruptcy under any provision of any bankruptcy or insolvency law; or (iii) becomes the subject of the filing of any bankruptcy or reorganization petition against it under any bankruptcy or insolvency law; or (iv) makes a general assignment for the benefit of creditors; or (v) becomes subject to the appointment of a receiver, trustee or liquidator, the Generator's Interconnection Request shall be deemed automatically terminated and all amounts owed by Generator shall become due and payable as of the date of occurrence of said event.

**17. Tariff Amendments**

**17.1** Nothing contained in the Tariff or any Agreement hereunder shall be construed as affecting in any way the right of Manitoba Hydro to unilaterally make a change in the terms, conditions and charges under this Tariff.

**18. Force Majeure and Indemnification**

**18.1 Force Majeure.** Neither the Generator nor Manitoba Hydro (the "Parties") shall be considered in default as to any obligation under this Tariff (excluding any obligations arising under Interconnection Study Agreements executed pursuant to

this Tariff, which shall be governed by said Agreements) if prevented from fulfilling the obligation due to an event of Force Majeure. For the purposes of this Section, "Force Majeure" shall mean any act of God, labour disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities or any other cause beyond a Party's reasonable control which cause could not have been avoided by the exercise of Good Utility Practice. An event of Force Majeure does not include economic hardship or insolvency, nor does it include an act of negligence or intentional wrongdoing. Neither Party shall be relieved of liability for failure of performance to the extent that such failure is due to a remediable cause which it fails to remove or remedy within a reasonable period of time.

- 18.2** If there is a Force Majeure event that has affected a Party's ability to perform an obligation specified in Section 18.1, the Party shall forthwith (and in any event no later than the end of the next business day after it first becomes aware that an occurrence constitutes a Force Majeure event) notify the other Party in writing of the reasons why it believes the occurrence constitutes a Force Majeure event, identifying the nature of the event, its expected duration, and the particulars of the obligations affected by the event, and furnish to the other Party reports with

respect to the Force Majeure event at such intervals as the other Party may reasonably request during the continuance of the Force Majeure event.

**18.3** If there is a Force Majeure event affecting a Party's ability to perform an obligation specified in Section 18.1, the Party shall be prompt and diligent in removing, if practicable, the cause of such inability to perform, but nothing in this Agreement shall be construed as permitting a Party to continue to fail to perform after said cause has been removed. Notwithstanding the foregoing, a Party shall not be obligated to agree to any settlement of a strike or labour dispute which, in that Party's sole opinion, may be inadvisable or detrimental.

**18.4 Indemnification.** The Generator shall at all times indemnify, defend, and save harmless Manitoba Hydro from any and all damages or losses suffered by Manitoba Hydro, including claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from Manitoba Hydro's performance of its obligations under this Tariff on behalf of the Generator (excluding obligations imposed under any Interconnection Study Agreements executed pursuant to this Tariff, which shall be governed by said Agreements) except in case of negligence or intentional wrongdoing by Manitoba Hydro.

**19. Limitation of Liability**

**19.1 MANITOBA HYDRO SHALL NOT BE LIABLE, WHETHER BASED ON CONTRACT, INDEMNIFICATION, WARRANTY, TORT, STRICT LIABILITY OR OTHERWISE TO GENERATOR OR ANY THIRD PARTY FOR ANY DAMAGES WHATSOEVER, INCLUDING WITHOUT LIMITATION, DIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, SPECIAL, EXEMPLARY OR INDIRECT DAMAGES ARISING OR RESULTING FROM ANY ACT OR OMISSION IN ANY WAY ASSOCIATED WITH SERVICE PROVIDED UNDER THIS TARIFF, INCLUDING BUT NOT LIMITED TO ANY ACT OR OMISSION THAT RESULTS IN AN INTERRUPTION, DEFICIENCY OR IMPERFECTION OF SERVICE, EXCEPT TO THE EXTENT THAT MANITOBA HYDRO IS FOUND LIABLE FOR GROSS NEGLIGENCE OR INTENTIONAL MISCONDUCT, IN WHICH CASE MANITOBA HYDRO SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, PUNITIVE, SPECIAL, EXEMPLARY OR INDIRECT DAMAGES.**

**19.2 MANITOBA HYDRO SHALL NOT BE LIABLE FOR DAMAGES ARISING OUT OF SERVICES PROVIDED UNDER THIS TARIFF, INCLUDING BUT NOT LIMITED TO, ANY ACT OR OMISSION THAT RESULTS IN AN INTERRUPTION, DEFICIENCY OR IMPERFECTION**

**OF SERVICE OCCURRING AS A RESULT OF CONDITIONS OR CIRCUMSTANCES RESULTING FROM ELECTRIC SYSTEM DESIGN COMMON TO THE NORTH AMERICAN ELECTRIC UTILITY INDUSTRY OR ELECTRIC SYSTEM OPERATION PRACTICES OR CONDITIONS COMMON TO THE NORTH AMERICAN ELECTRIC UTILITY INDUSTRY.**

**20. Dispute Resolution Procedures and Withdrawal of Tariff**

**20.1 Internal Dispute Resolution Procedures.** Any dispute between a Generator and Manitoba Hydro (“the Parties”) involving the Tariff, including an agreement entered into under the Tariff, shall be referred to a designated senior representative of Manitoba Hydro and a senior representative of the Generator for resolution on an informal basis as promptly as practicable. In the event the designated representatives are unable to resolve the dispute within thirty (30) days [or such other period as the Parties may agree upon] by mutual agreement, such dispute may be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below.

**20.2 External Arbitration Procedures.** Any arbitration initiated under the Tariff shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) days of the referral



of the dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. The two arbitrators so chosen shall within twenty (20) days select a third arbitrator to chair the arbitration panel. In either case, the arbitrators shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall conduct the arbitration in Winnipeg, Manitoba in English and shall provide each of the Parties an opportunity to be heard and except as otherwise provided herein, shall generally conduct the arbitration in accordance with *The Arbitration Act of Manitoba*, C.C.S.M. c.A120.

**20.3 Arbitration Decisions.** Unless otherwise agreed the arbitrator(s) shall render a decision within ninety (90) days of appointment and shall notify the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of the Tariff and any agreement entered into under the Tariff and shall have no power to modify the Tariff or any agreement entered into under the Tariff or change any of the above in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be either appealed solely on a

question of law alone or set aside. Such appeal or application to set aside shall be governed by the provisions of *The Arbitration Act of Manitoba*, C.C.S.M. c.A120.

**20.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable:

- (a) the cost of the arbitrator chosen by the Party to sit on the three member panel and one half of the cost of the third arbitrator chosen; or
- (b) one half the cost of the single arbitrator jointly chosen by the Parties.

**20.5 Court Jurisdiction.** The Parties agree to the exclusive jurisdiction of the Manitoba Court of Queen's Bench and the Manitoba Court of Appeal for the resolution of disputes which the Parties do not agree to arbitrate pursuant to Section 20.1 hereof and for the appeal, application to set aside or other reconsideration of an arbitral decision with respect to the Tariff, including any agreement under the Tariff.

**21. Termination or Withdrawal of Tariff.** Notwithstanding any other provision in this Tariff, Manitoba Hydro may terminate this Tariff, effective immediately and without satisfying the requirements of any other provisions of this Tariff if a regulatory body with jurisdiction over this Tariff issues an order against Manitoba Hydro, for any reason, requiring modifications to this Tariff in a manner determined by Manitoba Hydro to be unacceptable in its sole discretion.

Further, nothing contained in this Tariff shall restrict Manitoba Hydro's right to unilaterally withdraw this Tariff for any other reason. Except as otherwise provided in this Section, such withdrawal shall not affect a Generator's right to receive Interconnection Service pursuant to existing Interconnection and Operating Agreements entered into under the Tariff. Upon such withdrawal of this Tariff, all rights to have studies conducted, reports prepared or to expedite Interconnection Service under Interconnection Evaluation Study Agreements, Interconnection Facilities Study Agreements or Engineering and Procurement Agreements and all Interconnection Requests shall terminate immediately.

**ATTACHMENT 1**

**INTERCONNECTION REQUEST FOR \_\_\_\_\_ (name of Facility)**  
(All requested information and payment must be provided to constitute a valid Interconnection Request)

1. The undersigned Generator submits this Interconnection Request to install and operate generation interconnected with the Manitoba Hydro System pursuant to the Manitoba Hydro Open Access Interconnection Tariff.
2. This Interconnection Request is for (check one):
  - A proposed new generating facility.
  - An increase in the generating capacity of an existing generating facility.
  - A Substantial Modification to an existing generating facility.
  - A generating facility proposed for inclusion in a Resource Solicitation Process.
  - Conversion of type of Interconnection Service.
3. The type of Interconnection Service requested is (check one):
  - Energy Resource Interconnection Service
  - Network Resource Interconnection Service
  - To be determined after concurrent Interconnection Evaluation Study for both types of service
4. Generator provides the following:
  - a. Location of the proposed new generating facility site by section township and range, or by geographical coordinates, or, in the case of an existing generating facility site, the name and specific location of the facility:  
 \_\_\_\_\_  
 \_\_\_\_\_
  - b. Maximum megawatt (summer & winter) electrical output of the proposed new generating facility or the amount of megawatt increase in the generating capacity of an existing generating facility and/or a description of the Substantial Modification:  
 \_\_\_\_\_  
 \_\_\_\_\_
  - c. General description of the equipment configuration:

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d. Planned-In-Service Date by month and year of the new generating facility or increase in capacity of the existing generating facility or Substantial Modification:

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e. Date of Application:

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f. Name, address, telephone number and e-mail address of Generator's contact person:

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g. A deposit (in the form of a certified cheque payable to "Manitoba Hydro" in the amount of \$10,000.00 (Cdn.)

h. Evidence of Site Control (check one:)

- Attached to Interconnection Request;  
 Provided at a later date, prior to Interconnection Facilities Study.

i. Single Line Diagram attached.

5. This Interconnection Request and deposit shall be delivered by courier or registered mail to the representative indicated below unless submitted in response to a Resource Solicitation Process. In the latter case, the Interconnection Request shall be forwarded to the solicitor initiating the Resource Solicitation Process for submission to Manitoba Hydro.

Tariff Administrator  
Manitoba Hydro  
Transmission Services Department  
820 Taylor Avenue  
Winnipeg, Manitoba Hydro  
R3C 2P4

- 6. Manitoba Hydro shall maintain on OASIS a list of Interconnection Requests in accordance with the provisions of the Manitoba Hydro Open Access Interconnection Tariff.
- 7. Manitoba Hydro shall apply the Generator's deposit towards the cost of an Interconnection Evaluation Study. Manitoba Hydro shall either: (1) refund to Generator or solicitor of a Resource Solicitation Process any portion of the deposit that exceeds the actual cost of the Interconnection Evaluation Study within 30 days of completion of the Interconnection Evaluation Study or withdrawal or termination of the Interconnection Request; or (2) at the direction of the Generator or solicitor of a Resource Solicitation Process, apply any excess funds towards the cost of an Interconnection Facilities Study.
- 8. The terms and conditions of the Manitoba Hydro Open Access Interconnection Tariff as in effect on the date of this Interconnection Request are incorporated herein and made a part hereof.
- 9. I, the undersigned, an authorized representative of the Generator, submit this Interconnection Request to Manitoba Hydro, with the understanding that Manitoba Hydro will subsequently provide an Interconnection Evaluation Study Agreement in accordance with the provisions of the Manitoba Hydro Open Access Interconnection Tariff. For Interconnection Requests submitted in response to a Resource Solicitation Process, Generator authorizes the solicitor of the Resource Solicitation Process (as identified below) to act as agent for the Generator in processing the Interconnection Request, until such time as the Interconnection Facilities Study Report is provided to the solicitor. The Interconnection Evaluation Study Report should be mailed to the following address:

[Insert name and/or title of person]  
 [Insert name of Generator or, if applicable, solicitor of a Resource Solicitation Process]  
 [Insert street or P. O. Box address]  
 [Insert city, state/or province and postal or zip code]

- 10. All communications with Generator should be directed to the following person:

	(name)
	(title)
	(phone)
	(address/email)

Generator agrees to provide Manitoba Hydro with ten days prior written notice of any changes to the appropriate contact personnel.

11. This Interconnection Request is submitted by:

Name of Generator: \_\_\_\_\_

By (signature) \_\_\_\_\_

Name (type or print):

Title:

Date signed:

**ATTACHMENT 2**

**INTERCONNECTION EVALUATION STUDY AGREEMENT FOR \_\_\_\_\_  
\_\_\_\_\_ (name of Facility)**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, [corporate description of Generator] existing under the laws of the Province of \_\_\_\_\_, sometimes hereinafter referred to as "Generator," and Manitoba Hydro, a corporation incorporated pursuant to the provisions of *The Manitoba Hydro Act, C.C.S.M. c.H190*. Generator and Manitoba Hydro each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, Generator has submitted an Interconnection Request to Manitoba Hydro pursuant to the terms and conditions of the Manitoba Hydro Open Access Interconnection Tariff with respect to a generating facility located or to be located at \_\_\_\_\_ (Facility); and

**WHEREAS**, Generator has requested that Manitoba Hydro prepare an Interconnection Evaluation Study to assess the impact of the Interconnection Request on the reliability of the Manitoba Hydro System, and of any other affected systems;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed as follows:

- 1.0 The terms used in this Agreement shall have the meanings specified in the Manitoba Hydro Open Access Interconnection Tariff.
- 2.0 Manitoba Hydro shall perform or cause to be performed an Interconnection Evaluation Study and prepare an Interconnection Evaluation Study Report in accordance with the Manitoba Hydro Open Access Interconnection Tariff.
- 3.0 As described in the Manitoba Hydro Open Access Interconnection Tariff, Generator elects to have Phase 1 and Phase 2 performed (\_\_\_) concurrently or (\_\_\_) sequentially (select one option). This election is not available for Resource Solicitation Studies.
- 3.1 If Phase 1 and Phase 2 are performed concurrently, Manitoba Hydro estimates that it will be able to complete the Interconnection Evaluation Study Report on or before \_\_\_\_\_.



- 3.2 If the Generator elects to have Phase 1 and Phase 2 performed sequentially, Manitoba Hydro estimates that it will be able to complete the preliminary report on Phase 1 of the Interconnection Evaluation Study on or before \_\_\_\_\_.
- 4.0 The scope of the Interconnection Evaluation Study (“Study”) shall be as set forth in the Manitoba Hydro Open Access Interconnection Tariff subject to the assumptions set forth in Exhibit A of this Agreement.
- 5.0 The Study shall be based on the technical information provided by Generator in Exhibit B to this Agreement. Manitoba Hydro reserves the right to request additional technical information from Generator as may become necessary during the course of the Interconnection Evaluation Study. If Generator’s Interconnection Request is modified or the technical information provided in Exhibit B is modified, incomplete, or inaccurate, the time to complete the Interconnection Evaluation Study may be extended and/or the results may be inaccurate.
- 6.0 The final Interconnection Evaluation Study Report (“Study Report”) shall provide the following information:
- (i) Identification of any thermal overload or voltage limit violations resulting from the interconnection.
  - (ii) Identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection.
  - (iii) Identification of any instability or inadequately damped response to system disturbances resulting from the interconnection.
  - (iv) A preliminary identification of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades required to accommodate the Interconnection Request.
  - (v) A preliminary, non-binding estimate of the costs and time required to construct the Transmission Owner Interconnection Facilities and Interconnection System Upgrades.
- 7.0 The estimated cost for performance of the Study and preparation of the Study Report is \$ \_\_\_\_\_. Generator shall make an initial payment in the amount of

\$\_\_\_\_\_ (representing the amount by which the estimated cost exceeds Generator's deposit) at the time of delivering the executed Agreement to Manitoba Hydro. Manitoba Hydro shall charge and Generator shall pay for all actual costs of the Study and Study Report (including the provision of supporting documentation) in excess of the deposit paid by Generator (at the time of submitting its Interconnection Request) after completion of the Study Report or withdrawal or termination of the Interconnection Request, whichever occurs first. Actual costs of the Study and Study Report shall include overhead costs. Such payment shall be due and payable within 30 days of the Generator being invoiced unless Generator's Interconnection Request is terminated for insolvency pursuant to Section 16.2 of the Manitoba Hydro Open Access Interconnection Tariff, in which case the provisions of Section 16.2 of the Tariff shall apply. If after completion of the Study Report or upon withdrawal or termination of the Interconnection Request, the deposit paid by Generator exceeds the actual costs of the Study and preparation of the Study Report, Manitoba Hydro shall refund the excess amount to the Generator within 30 days or, at the direction of the Generator, apply the excess amount towards the costs of an Interconnection Facilities Study.

- 8.0 Actual interconnection of the Facility shall be subject to the provisions of the Manitoba Hydro Open Access Interconnection Tariff and applicable regulatory and any other required approvals.
- 9.0 This Agreement is subject to the provisions of the Manitoba Hydro Open Access Interconnection Tariff and the provisions of said Tariff are incorporated by reference herein.
- 10.0 This Agreement shall be governed and interpreted in accordance with the laws of the Province of Manitoba.
- 11.0 This Agreement shall not be assigned without the prior written consent of the other Party.
- 12.0 Any amendments to this Agreement shall be in writing and signed by the Parties.
- 13.0 This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and terminates and supersedes all prior oral and written representations. There are no representations, conditions, warranties or agreements, express or implied, with respect to or collateral to this Agreement other than those contained or expressly incorporated herein.

- 14.0 Manitoba Hydro is an independent contractor. This Agreement shall not create the relationship of employer and employee, principal and agent, partnership or joint venture between Manitoba Hydro and Generator or between Generator and any officers, employees or agents of Manitoba Hydro.
- 15.0 Generator acknowledges that Manitoba Hydro is relying upon information provided by the Generator and other parties in the preparation of the Study and Study Report.
- 16.0 Manitoba Hydro makes no representations or warranties with respect to the accuracy, completeness, reliability or suitability of the Study and Study Report. Generator assumes any and all risk and responsibility for use of, and reliance on, the Study and Study Report. Generator disclaims and waives any rights or remedies that it might otherwise have against Manitoba Hydro in contract, tort, equity or other legal cause of action for faults, errors, defects, inaccuracies, omissions, suitability or reliability of the Study and Study Report.
- 17.0 Generator agrees to indemnify and hold harmless Manitoba Hydro and its successors and assigns from and against all actions, causes of action, claims, damages, costs, liability, debts, demands, damage to property or persons, including damages, costs and losses suffered by Manitoba Hydro and claims brought against Manitoba Hydro by any third party whatsoever, in respect of, or arising directly or indirectly out of this Agreement.
- 18.0 All products of, or resulting from, the performance of the Study and preparation of the Study Report by Manitoba Hydro in the course of performing this Agreement, including but not limited to, all information, drawings, Reports, records, documents, research notes, data, photographs, maps, materials, drafts, working drafts, documents or tangible assets and any intellectual property therein, including patent, trademark, copyrights, design and trade secrets (hereinafter collectively referred to as "Service Product") shall become the exclusive property of Manitoba Hydro immediately upon creation or assembly, notwithstanding the fact that all or a portion of the data provided by Generator may be incorporated within the Service Product. The Generator shall have no right to copy, modify, amend, alter, sell, lend or dispense of any such Service Products in any manner for any reason.

- 19.0 The Generator shall have no right to use the Service Products except for the purpose of determining whether the Generator shall proceed with having Manitoba Hydro perform an Interconnection Facilities Study.
- 20.0 Neither Party shall be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure. However, a Party whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement. Neither Party shall be relieved of liability for failure of performance to the extent that such failure is due to a remediable cause which it fails to remove or remedy within a reasonable period of time.
- 20.1 In this Agreement, an event of “Force Majeure” means any act of God, labour disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s reasonable control which cause could not have been avoided by the exercise of Good Utility Practice. A Force Majeure event does not include an act of negligence or intentional wrongdoing or economic hardship or insolvency.
- 20.2 If there is a Force Majeure event that has affected a Party’s ability to perform its obligations under this Agreement the Party shall forthwith (and in any event no later than the end of the next business day after it first becomes aware that an occurrence constitutes a Force Majeure event) notify the other Party in writing of the reasons why it believes the occurrence constitutes a Force Majeure event, identifying the nature of the event, its expected duration, and the particulars of the obligations affected by the event, and furnish to the other Party reports with respect to the Force Majeure event at such intervals as the other Party may reasonably request during the continuance of the Force Majeure event.
- 20.3 If there is a Force Majeure event affecting a Party’s ability to perform its obligations under this Agreement, the Party shall be prompt and diligent in removing, if practicable, the cause of such inability to perform, but nothing in this Agreement shall be construed as permitting a Party to continue to fail to perform after said cause has been removed. Notwithstanding the foregoing, a Party shall not be obligated to agree to any settlement of a strike or labour dispute which, in that Party’s sole opinion, may be inadvisable or detrimental.

21.0 This Agreement may be executed in any number of counterparts, including counterparts signed by facsimile, each of which shall be deemed an original and all of which together shall constitute one and the same instrument. A photocopied and/or facsimile copy of this Agreement bearing a signature of each Party, in a single document or as counterparts thereof as provided for herein, shall be deemed an original executed version of this Agreement.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**Manitoba Hydro**

**[Insert name of Generator]**

By: \_\_\_\_\_  
Name (typed or printed): \_\_\_\_\_  
Title: \_\_\_\_\_

By: \_\_\_\_\_  
Name (typed or printed): \_\_\_\_\_  
Title: \_\_\_\_\_

**EXHIBIT A**  
**to**  
**Interconnection Evaluation Study Agreement For \_\_\_\_\_ (name**  
**of Facility)**

The Interconnection Evaluation Study will evaluate the impact of \_\_\_\_\_ MW of generation connected to **[DESCRIBE TRANSMISSION LINE OR SUBSTATION CONNECTION POINT]**, at the point designated for the location of the site in \_\_\_\_\_ Municipality, \_\_\_\_\_ **[Province]**, with a projected In-Service Date of \_\_\_\_\_ **(MONTH, DAY, YEAR)**.

The Interconnection Evaluation Study will be based upon the following assumptions:

**EXHIBIT B**  
**TO**  
**INTERCONNECTION EVALUATION STUDY AGREEMENT FOR \_\_\_\_\_**  
**(name of Facility)**

Note: A separate copy of this Exhibit B is required for each proposed unit at the same site. All data entries must be printed in ink or typed. Generator and transformer parameter values should be based upon 60Hz operation.

SITE NAME:  
SITE ADDRESS:

OVERVIEW DATA FOR THIS GENERATOR – Generator shall provide all data required by Manitoba Hydro’s Transmission System Interconnection Requirements as published and revised from time to time.

GENERATOR NUMBER OR OTHER UNIQUE IDENTIFIER:  
(for the generator described on the following sheets and attached diagrams)

1. GENERATOR IDENTIFICATION:
  - A. MANUFACTURER:
  - B. MODEL:
  - C. SERIAL NUMBER:
2. GENERATING CAPABILITY OF THIS UNIT:
  - A. RATING (kilowatts @ power factor) with all temperature dependencies identified:
3. RATED VOLTAGE (KV):
4. RATED SPEED (RPM):
5. TYPE OF GENERATOR (synchronous, induction, etc.) AND PRIME MOVER (steam turbine, reciprocating, etc.):
6. GENERATOR GROUNDING METHOD (and impedance value if applicable):
7. ONE LINE ELECTRICAL DIAGRAM(S) (showing anticipated connection to customer’s new or existing system and/or connection to the Transmission System):
8. DESCRIPTION OF PLANNED CIRCUIT BREAKER CONFIGURATION FOR SYNCHRONIZING THE GENERATOR TO THE GRID (be sure to specify which individual breaker will be used):
9. PHYSICAL SITE LOCATION DRAWING(S) OR MAP(S):
10. ANTICIPATED BACKFEED DATE:
11. ANTICIPATED COMMERCIAL OPERATION DATE:

Issued by: L. Midford  
Issued on: December 12, 2003  
Revised: March 16, 2012

Effective: April 16, 2012

12. TOTAL NUMBER OF GENERATORS AT THIS SITE:  
**MODELING DATA FOR THIS SYNCHRONOUS GENERATOR**

SITE NAME:

GENERATOR NUMBER OR UNIQUE IDENTIFIER: (as given on the first sheet)

1. RESISTANCES GIVEN IN PER UNIT ON:                      KVA,                      KV BASE
  - A. POSITIVE SEQUENCE RESISTANCE:                      R1 =
  - B. NEGATIVE SEQUENCE RESISTANCE:                      R2 =
  - C. ZERO SEQUENCE RESISTANCE:                              R0 =
  
2. REACTANCES GIVEN IN PER UNIT ON:                      KVA,                      KV BASE
 

	UNSATURATED	SATURATED
A. DIRECT AXIS SYNCHRONOUS REACTANCE:	X <sub>d</sub> =	,
B. DIRECT AXIS TRANSIENT REACTANCE:	X' <sub>d</sub> =	,
C. DIRECT AXIS SUBTRANSIENT REACTANCE:	X'' <sub>d</sub> =	,
D. QUADRATURE AXIS SYNCHRONOUS REACTANCE:	X <sub>q</sub> =	,
E. QUADRATURE AXIS TRANSIENT REACTANCE:	X' <sub>q</sub> =	,
F. QUADRATURE AXIS SUBTRANSIENT REACTANCE:	X'' <sub>q</sub> =	,
G. POSITIVE SEQUENCE REACTANCE:	X <sub>1</sub> =	,
H. NEGATIVE SEQUENCE REACTANCE:	X <sub>2</sub> =	,
I. ZERO SEQUENCE REACTANCE:	X <sub>0</sub> =	,
J. STATOR LEAKAGE REACTANCE:	X <sub>L</sub> =	,
K. POTIER REACTANCE:	X <sub>p</sub> =	,
  
3. TIME CONSTANTS:
  - A. DIRECT AXIS SHORT CIRCUIT TRANSIENT (line-neutral):                      T'd1 (seconds) =
  - B. DIRECT AXIS SHORT CIRCUIT TRANSIENT (line-line):                              T'd2 (seconds) =
  - C. DIRECT AXIS SHORT CIRCUIT TRANSIENT (three phase):                              T'd3 (seconds) =
  - D. DIRECT AXIS SHORT CIRCUIT SUBTRANSIENT (line-neutral):                              T''d1 (seconds) =
  - E. DIRECT AXIS SHORT CIRCUIT SUBTRANSIENT (line-line):                              T''d2 (seconds) =
  - F. DIRECT AXIS SHORT CIRCUIT SUBTRANSIENT (three phase):                              T''d3 (seconds) =
  - G. QUADRATURE AXIS SHORT CIRCUIT TRANSIENT (line-neutral):                              T'q1 (seconds) =
  - H. QUADRATURE AXIS SHORT CIRCUIT TRANSIENT (line-line):                              T'q2 (seconds) =
  - I. QUADRATURE AXIS SHORT CIRCUIT TRANSIENT (three phase):                              T'q3 (seconds) =
  - J. QUADRATURE AXIS SHORT CIRCUIT SUBTRANSIENT (line-neutral):                              T''q1 (seconds) =
  - K. QUADRATURE AXIS SHORT CIRCUIT SUBTRANSIENT (line-line):                              T''q2 (seconds) =
  - L. QUADRATURE AXIS SHORT CIRCUIT SUBTRANSIENT (three phase):                              T''q3 (seconds) =
  - M. DIRECT AXIS OPEN CIRCUIT TRANSIENT:    T'do (seconds) =
  - N. DIRECT AXIS OPEN CIRCUIT SUBTRANSIENT:    T''do (seconds) =
  - O. QUADRATURE AXIS OPEN CIRCUIT TRANSIENT:    T'qo (seconds) =
  - P. QUADRATURE AXIS OPEN CIRCUIT SUBTRANSIENT:    T''qo (seconds) =
  - Q. SHORT CIRCUIT ARMATURE (line-neutral):    Ta1 (seconds) =
  - R. SHORT CIRCUIT ARMATURE (line-line):    Ta2 (seconds) =
  - S. SHORT CIRCUIT ARMATURE (three phase):    Ta3 (seconds) =
  
4. INERTIA CONSTANT (Including Turbine):

Issued by: L. Midford  
 Issued on: December 12, 2003  
 Revised: March 16, 2012

Effective: April 16, 2012



H (in seconds - on machine base):                      and WR2 (lb-ft<sup>2</sup>):

5. AUXILIARY LOAD WITH GENERATOR IN SERVICE:                      KW and                      KVA

6. ADDITIONAL GENERATOR INFORMATION:

- A. Attach a legible plot of generator air-gap and open-circuit saturation curves and short circuit characteristic.
- B. Attach a legible plot of generator reactive capability curves (MVAR output vs. MW output) and V curves.
- C. Attach all technical data provided by the generator manufacturer.

7. EXCITER, POWER SYSTEM STABILIZER AND GOVERNOR MODELING DATA:

- A. Specify excitation system and power system stabilizer data in accordance with IEEE Standards (refer to "Excitation System Models for Power System Stability Studies", IEEE Transactions on Power Apparatus and Systems, Vol. PAS-100, No. 2, Feb. 1981). If the excitation system cannot be properly modeled as an IEEE standard model, Manitoba Hydro will have a model suitable for extended-term dynamics studies created for the PSS/E engineering simulation program. Generator will be billed for the creation of this model.
- B. Provide data and block diagram model of turbine and governor.

**MODELING DATA FOR THIS INDUCTION GENERATOR**

SITE NAME:

GENERATOR NUMBER OR UNIQUE IDENTIFIER: (as given on the first sheet)

1. RESISTANCES GIVEN IN PER UNIT ON:                      KVA,                      KV BASE
  - A. POSITIVE SEQUENCE RESISTANCE:                      R1 =
  - B. NEGATIVE SEQUENCE RESISTANCE:                      R2 =
  - C. ZERO SEQUENCE RESISTANCE:                              R0 =
  
2. REACTANCES GIVEN IN PER UNIT ON:                      KVA,                      KV BASE
 

	UNSATURATED		SATURATED
A. SYNCHRONOUS REACTANCE:	X =	,	,
B. TRANSIENT REACTANCE:	X' =	,	,
C. SUBTRANSIENT REACTANCE:	X'' =	,	,
D. POSITIVE SEQUENCE REACTANCE:	X1 =	,	,
E. NEGATIVE SEQUENCE REACTANCE:	X2 =	,	,
F. ZERO SEQUENCE REACTANCE:	X0 =	,	,
G. STATOR LEAKAGE REACTANCE:	XL =	,	,
  
3. TIME CONSTANTS:
  - A. SHORT CIRCUIT TRANSIENT:                              T' (seconds) =
  - B. SHORT CIRCUIT SUBTRANSIENT:                              T'' (seconds) =
  - C. OPEN CIRCUIT TRANSIENT:                                      T'o (seconds) =
  - D. OPEN CIRCUIT SUBTRANSIENT:                                      T''o (seconds) =
  
4. INERTIA CONSTANT (Including Turbine):
 

H (in seconds - on machine base):                      and WR2 (lb-ft^2):
  
5. MECHANICAL POWER USED AT SYNCHRONOUS SPEED (MW):
  
6. TORQUE AT SYNCHRONOUS SPEED (pu):
  
7. AUXILIARY LOAD WITH GENERATOR  
IN SERVICE:    KW and                                      KVA
  
8. ADDITIONAL GENERATOR INFORMATION:
  - A. Attach a legible plot of generator air-gap and open-circuit saturation curves and short circuit characteristic.
  - B. Attach a legible plot of generator reactive capability curves (MVAR output vs. MW output) and V curves.
  
9. PROVIDE DATA AND BLOCK DIAGRAM MODEL OF TURBINE AND GOVERNOR:

**MODELING DATA FOR NON-STANDARD GENERATORS WITH A POWER ELECTRONICS CONVERTER INTERFACE TO THE AC ELECTRIC POWER GRID**

Contact Manitoba Hydro for the data submission requirements for this type of generator.

**MODELING DATA FOR THE STEP-UP TRANSFORMER FOR THIS GENERATOR**

SITE NAME:

GENERATOR NUMBER OR UNIQUE IDENTIFIER: (as given on the first sheet)

1. TRANSFORMER IDENTIFICATION:

- A. MANUFACTURER:
- B. MODEL/TYPE:
- C. SERIAL NUMBER:

2. TRANSFORMER DATA:

- A. RATINGS (KVA):
- B. HIGH VOLTAGE WINDING Nominal Voltage (KV):  
CONNECTED grounded wye/ ungrounded wye/grounded through impedance wye/delta  
(list impedance and base if applicable):
- C. LOW VOLTAGE WINDING Nominal Voltage (KV):  
CONNECTED grounded wye/ ungrounded wye/grounded through impedance wye/delta  
(list impedance and base if applicable):

3. IMPEDANCES GIVEN IN PER UNIT ON                      KVA,                      KV BASE

- A. POSITIVE SEQUENCE RESISTANCE:                      R1 =
- B. NEGATIVE SEQUENCE RESISTANCE:                      R2 =
- C. ZERO SEQUENCE RESISTANCE:                              R0 =
- D. POSITIVE SEQUENCE REACTANCE:                        X1 =
- E. NEGATIVE SEQUENCE REACTANCE:                        X2 =
- F. ZERO SEQUENCE REACTANCE:                                X0 =

4. TAP SETTINGS

- A. ALL AVAILABLE TAP SETTINGS:
  - H.V. Taps (KV):
  - L.V. Taps (KV):
- B. EXPECTED TAP SETTINGS:
  - H.V. Tap (KV):    L.V. Tap (KV):

Generator represents and warrants that the data for the individual generator and step-up transformer provided above in this exhibit is complete and accurate. Any additional engineering studies, infrastructure changes, delays, or equipment damage due to missing or inaccurate data is the responsibility of Generator. This data shall be verified as accurate and complete immediately **prior** to the generating units being commissioned and every 4 years afterwards (or as directed by the North American Electric Reliability Corporation or other applicable reliability organization policy once it has been finalized). Any changes in the data above once the generators are in-service must be immediately provided to Manitoba Hydro.

Name:

Signature:

Title:

Company:

Address:

Date:

Email:

Issued by: L. Midford

Issued on: December 12, 2003

Revised: March 16, 2012

Effective: April 16, 2012

Phone:

Fax:

**ATTACHMENT 2-A**

**GROUP INTERCONNECTION EVALUATION STUDY AGREEMENT FOR \_\_\_\_\_  
(name of Facility)**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, [corporate description of Generator] existing under the laws of the Province of \_\_\_\_\_, sometimes hereinafter referred to as "Generator," and Manitoba Hydro, a corporation incorporated pursuant to the provisions of *The Manitoba Hydro Act, C.C.S.M. c.H190*. Generator and Manitoba Hydro each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, Generator has submitted an Interconnection Request to Manitoba Hydro pursuant to the terms and conditions of the Manitoba Hydro Open Access Interconnection Tariff with respect to a generating facility located or to be located at \_\_\_\_\_ (Facility); and

**WHEREAS**, Generator has requested that Manitoba Hydro prepare a Group Interconnection Evaluation Study in lieu of an individual Interconnection Evaluation Study to assess the impact of its Interconnection Request, and other Interconnection Requests that are part of the Group Study, on the reliability of the Manitoba Hydro System, and of any other affected systems;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed as follows:

- 1.0 The terms used in this Agreement shall have the meanings specified in the Manitoba Hydro Open Access Interconnection Tariff.
- 2.0 Manitoba Hydro shall perform or cause to be performed a Group Interconnection Evaluation Study and prepare a Group Interconnection Evaluation Study Report in accordance with the Manitoba Hydro Open Access Interconnection Tariff.
- 3.0 Manitoba Hydro estimates that it will be able to complete the Group Interconnection Evaluation Study Report on or before \_\_\_\_\_.
- 4.0 The scope of the Group Interconnection Evaluation Study ("Study") shall be as set forth in the Manitoba Hydro Open Access Interconnection Tariff subject to the

assumptions set forth in Exhibit A of this Agreement as determined by Manitoba Hydro in consultation with the Generators participating in the Group Study.

- 5.0 The Study shall be based on the technical information provided by Generator in Exhibit B to this Agreement. Manitoba Hydro reserves the right to request additional technical information from Generator as may become necessary during the course of the Group Interconnection Evaluation Study. If the technical information provided in Exhibit B to any of the Group Study Agreements is modified, incomplete, or inaccurate, the time to complete the Group Interconnection Evaluation Study may be extended and/or the results may be inaccurate.
- 6.0 The Group Interconnection Evaluation Study Report (“Study Report”) shall provide the following information:
- (i) Identification of any thermal overload or voltage limit violations resulting from the interconnections.
  - (ii) Identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnections.
  - (iii) Identification of any instability or inadequately damped response to system disturbances resulting from the interconnections.
  - (iv) A preliminary identification of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades required to accommodate the Interconnection Request.
  - (v) A preliminary, non-binding estimate of the costs and time required to construct the Transmission Owner Interconnection Facilities and Interconnection System Upgrades.
- 7.0 All Generators participating in a Group Study shall share equally in the costs of performing a Group Interconnection Evaluation Study. The estimated cost for performance of the Study and preparation of the Study Report is \$\_\_\_\_\_. Generator shall make an initial payment of \$\_\_\_\_\_ (representing the amount by which Generator’s portion of the estimated cost for performance of the Group Study and preparation of the Group Study Report, exceeds Generator’s deposit), at the time of delivering the executed Agreement to Manitoba Hydro. Manitoba Hydro shall charge and Generator shall pay for an equal portion of all actual costs

of the Group Study and Group Study Report (including the provision of supporting documentation) in excess of the deposit paid by Generator (at the time of submitting its Interconnection Request) after completion of the Group Study Report. Actual costs of the Study and Study Report shall be deemed to include overhead costs. Such payment shall be due and payable within 30 days of the Generator being invoiced unless Generator's Interconnection Request is terminated for insolvency pursuant to Section 16.2 of the Manitoba Hydro Open Access Interconnection Tariff, in which case the provisions of Section 16.2 of the Tariff shall apply. If after completion of the Group Study Report, the deposit paid by Generator exceeds the actual costs of the Group Study and preparation of the Group Study Report, Manitoba Hydro shall refund the excess amount to the Generator within 30 days or, at the direction of the Generator, apply the excess amount towards the costs of an Interconnection Facilities Study.

- 8.0 Actual interconnection of the Facility shall be subject to the provisions of the Manitoba Hydro Open Access Interconnection Tariff and applicable regulatory and any other required approvals.
- 9.0 This Agreement is subject to the provisions of the Manitoba Hydro Open Access Interconnection Tariff and the provisions of said Tariff are incorporated by reference herein.
- 10.0 This Agreement shall be governed and interpreted in accordance with the laws of the Province of Manitoba.
- 11.0 This Agreement shall not be assigned without the prior written consent of the other Party.
- 12.0 Any amendments to this Agreement shall be in writing and signed by the Parties.
- 13.0 This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and terminates and supersedes all prior oral and written representations. There are no representations, conditions, warranties or agreements, express or implied, with respect to or collateral to this Agreement other than those contained or expressly incorporated herein.
- 14.0 Manitoba Hydro is an independent contractor. This Agreement shall not create the relationship of employer and employee, principal and agent, partnership or joint venture between Manitoba Hydro and Generator or between Generator and any officers, employees or agents of Manitoba Hydro.

- 15.0 Generator acknowledges that Manitoba Hydro is relying upon information provided by the Generator and other parties in the preparation of the Group Study and Group Study Report.
- 16.0 Manitoba Hydro makes no representations or warranties with respect to the accuracy, completeness, reliability or suitability of the Group Study and Group Study Report. Generator assumes any and all risk and responsibility for use of, and reliance on, the Group Study and Group Study Report. Generator disclaims and waives any rights or remedies that it might otherwise have against Manitoba Hydro in contract, tort, equity or other legal cause of action for faults, errors, defects, inaccuracies, omissions, suitability or reliability of the Group Study and Group Study Report.
- 17.0 Generator agrees to indemnify and hold harmless Manitoba Hydro and its successors and assigns from and against all actions, causes of action, claims, damages, costs, liability, debts, demands, damage to property or persons, including damages, costs and losses suffered by Manitoba Hydro and claims brought against Manitoba Hydro by any third party whatsoever, in respect of, or arising directly or indirectly out of this Agreement.
- 18.0 All products of, or resulting from, the performance of the Group Study and preparation of the Group Study Report by Manitoba Hydro in the course of performing this Agreement, including but not limited to, all information, drawings, Reports, records, documents, research notes, data, photographs, maps, materials, drafts, working drafts, documents or tangible assets and any intellectual property therein, including patent, trademark, copyrights, design and trade secrets (hereinafter collectively referred to as "Service Product") shall become the exclusive property of Manitoba Hydro immediately upon creation or assembly, notwithstanding the fact that all or a portion of the data provided by Generator may be incorporated within the Service Product. The Generator shall have no right to copy, modify, amend, alter, sell, lend or dispense of any such Service Products in any manner for any reason.
- 19.0 The Generator shall have no right to use the Service Products except for the purpose of determining whether the Generator shall proceed with having Manitoba Hydro perform an Interconnection Facilities Study either individually or as part of a Group Study.
- 20.0 Neither Party shall be considered in default as to any obligation under this



Agreement if prevented from fulfilling the obligation due to an event of Force Majeure. However, a Party whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement. Neither Party shall be relieved of liability for failure of performance to the extent that such failure is due to a remediable cause which it fails to remove or remedy within a reasonable period of time.

- 20.1 In this Agreement, an event of “Force Majeure” means any act of God, labour disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s reasonable control which cause could not have been avoided by the exercise of Good Utility Practice. A Force Majeure event does not include an act of negligence or intentional wrongdoing or economic hardship or insolvency.
- 20.2 If there is a Force Majeure event that has affected a Party’s ability to perform its obligations under this Agreement the Party shall forthwith (and in any event no later than the end of the next business day after it first becomes aware that an occurrence constitutes a Force Majeure event) notify the other Party in writing of the reasons why it believes the occurrence constitutes a Force Majeure event, identifying the nature of the event, its expected duration, and the particulars of the obligations affected by the event, and furnish to the other Party reports with respect to the Force Majeure event at such intervals as the other Party may reasonably request during the continuance of the Force Majeure event.
- 20.3 If there is a Force Majeure event affecting a Party’s ability to perform its obligations under this Agreement, the Party shall be prompt and diligent in removing, if practicable, the cause of such inability to perform, but nothing in this Agreement shall be construed as permitting a Party to continue to fail to perform after said cause has been removed. Notwithstanding the foregoing, a Party shall not be obligated to agree to any settlement of a strike or labour dispute which, in that Party’s sole opinion, may be inadvisable or detrimental.
- 21.0 This Agreement may be executed in any number of counterparts, including counterparts signed by facsimile, each of which shall be deemed an original and all of which together shall constitute one and the same instrument. A photocopied and/or facsimile copy of this Agreement bearing a signature of each Party, in a single document or as counterparts thereof as provided for herein, shall be deemed an original executed version of this Agreement.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**Manitoba Hydro**

**[Insert name of Generator]**

By: \_\_\_\_\_  
Name (typed or printed): \_\_\_\_\_  
Title: \_\_\_\_\_

By: \_\_\_\_\_  
Name (typed or printed): \_\_\_\_\_  
Title: \_\_\_\_\_

**EXHIBIT A**  
**to**  
**Group Interconnection Evaluation Study Agreement for \_\_\_\_\_** (name of  
Facility)

The Group Interconnection Evaluation Study will evaluate the impact of \_\_\_\_ MW of generation connected to **[DESCRIBE TRANSMISSION LINE OR SUBSTATION CONNECTION POINT]**, at the point designated for the location of the site in \_\_\_\_\_ Municipality, \_\_\_\_\_ **[Province]**, with a projected In-Service Date of \_\_\_\_\_ **(MONTH, DAY, YEAR)** as well as the impact of other Interconnection Requests included in the Group Study.

The Group Interconnection Evaluation Study will be based upon the following assumptions:

**EXHIBIT B**  
**TO**  
**GROUP INTERCONNECTION EVALUATION STUDY AGREEMENT FOR \_\_\_\_\_**  
**(name of Facility)**

Note: A separate copy of this Exhibit B is required for each proposed unit at the same site. All data entries must be printed in ink or typed. Generator and transformer parameter values should be based upon 60Hz operation.

SITE NAME:

SITE ADDRESS:

OVERVIEW DATA FOR THIS GENERATOR – Generator shall provide all data required by Manitoba Hydro’s Transmission System Interconnection Requirements as published and revised from time to time.

GENERATOR NUMBER OR OTHER UNIQUE IDENTIFIER:

(for the generator described on the following sheets and attached diagrams)

1. GENERATOR IDENTIFICATION:

- A. MANUFACTURER:
- B. MODEL:
- C. SERIAL NUMBER:

2. GENERATING CAPABILITY OF THIS UNIT:

- A. RATING (kilowatts @ power factor) with all temperature dependencies identified:

3. RATED VOLTAGE (KV):

4. RATED SPEED (RPM):

5. TYPE OF GENERATOR (synchronous, induction, etc.) AND PRIME MOVER (steam turbine, reciprocating, etc.):

6. GENERATOR GROUNDING METHOD (and impedance value if applicable):

7. ONE LINE ELECTRICAL DIAGRAM(S) (showing anticipated connection to customer’s new or existing system and/or connection to the Transmission System):

8. DESCRIPTION OF PLANNED CIRCUIT BREAKER CONFIGURATION FOR SYNCHRONIZING THE GENERATOR TO THE GRID (be sure to specify which individual breaker will be used):

9. PHYSICAL SITE LOCATION DRAWING(S) OR MAP(S):

10. ANTICIPATED BACKFEED DATE:

11. ANTICIPATED COMMERCIAL OPERATION DATE:

Issued by: L. Midford  
Issued on: December 12, 2003  
Revised: March 16, 2012

Effective: April 16, 2012

12. TOTAL NUMBER OF GENERATORS AT THIS SITE:

### **MODELING DATA FOR THIS SYNCHRONOUS GENERATOR**

SITE NAME:

GENERATOR NUMBER OR UNIQUE IDENTIFIER: (as given on the first sheet)

- |   |                   |             |           |
|---|-------------------|-------------|-----------|
| 1. RESISTANCES GIVEN IN PER UNIT ON:                          | KVA,              | KV BASE     |           |
| A. POSITIVE SEQUENCE RESISTANCE:                              | R1 =              |             |           |
| B. NEGATIVE SEQUENCE RESISTANCE:                              | R2 =              |             |           |
| C. ZERO SEQUENCE RESISTANCE:                                  | R0 =              |             |           |
| 2. REACTANCES GIVEN IN PER UNIT ON:                           | KVA,              | KV BASE     |           |
|   |                   | UNSATURATED | SATURATED |
| A. DIRECT AXIS SYNCHRONOUS REACTANCE:                         | Xd =              | ,           | ,         |
| B. DIRECT AXIS TRANSIENT REACTANCE:                           | X'd =             | ,           | ,         |
| C. DIRECT AXIS SUBTRANSIENT REACTANCE:                        | X''d =            | ,           | ,         |
| D. QUADRATURE AXIS SYNCHRONOUS REACTANCE:                     | Xq =              | ,           | ,         |
| E. QUADRATURE AXIS TRANSIENT REACTANCE:                       | X'q =             | ,           | ,         |
| F. QUADRATURE AXIS SUBTRANSIENT REACTANCE:                    | X''q =            | ,           | ,         |
| G. POSITIVE SEQUENCE REACTANCE:                               | X1 =              | ,           | ,         |
| H. NEGATIVE SEQUENCE REACTANCE:                               | X2 =              | ,           | ,         |
| I. ZERO SEQUENCE REACTANCE:                                   | X0 =              | ,           | ,         |
| J. STATOR LEAKAGE REACTANCE:                                  | XL =              | ,           | ,         |
| K. POTIER REACTANCE:  | Xp =              | ,           | ,         |
| 3. TIME CONSTANTS:  |                   |             |           |
| A. DIRECT AXIS SHORT CIRCUIT TRANSIENT (line-neutral):        | T'd1 (seconds) =  |             |           |
| B. DIRECT AXIS SHORT CIRCUIT TRANSIENT (line-line):           | T'd2 (seconds) =  |             |           |
| C. DIRECT AXIS SHORT CIRCUIT TRANSIENT (three phase):         | T'd3 (seconds) =  |             |           |
| D. DIRECT AXIS SHORT CIRCUIT SUBTRANSIENT (line-neutral):     | T''d1 (seconds) = |             |           |
| E. DIRECT AXIS SHORT CIRCUIT SUBTRANSIENT (line-line):        | T''d2 (seconds) = |             |           |
| F. DIRECT AXIS SHORT CIRCUIT SUBTRANSIENT (three phase):      | T''d3 (seconds) = |             |           |
| G. QUADRATURE AXIS SHORT CIRCUIT TRANSIENT (line-neutral):    | T'q1 (seconds) =  |             |           |
| H. QUADRATURE AXIS SHORT CIRCUIT TRANSIENT (line-line):       | T'q2 (seconds) =  |             |           |
| I. QUADRATURE AXIS SHORT CIRCUIT TRANSIENT (three phase):     | T'q3 (seconds) =  |             |           |
| J. QUADRATURE AXIS SHORT CIRCUIT SUBTRANSIENT (line-neutral): | T''q1 (seconds) = |             |           |
| K. QUADRATURE AXIS SHORT CIRCUIT SUBTRANSIENT (line-line):    | T''q2 (seconds) = |             |           |
| L. QUADRATURE AXIS SHORT CIRCUIT SUBTRANSIENT (three phase):  | T''q3 (seconds) = |             |           |
| M. DIRECT AXIS OPEN CIRCUIT TRANSIENT:                        | T'do (seconds) =  |             |           |
| N. DIRECT AXIS OPEN CIRCUIT SUBTRANSIENT:                     | T''do (seconds) = |             |           |
| O. QUADRATURE AXIS OPEN CIRCUIT TRANSIENT:                    | T'qo (seconds) =  |             |           |
| P. QUADRATURE AXIS OPEN CIRCUIT SUBTRANSIENT:                 | T''qo (seconds) = |             |           |
| Q. SHORT CIRCUIT ARMATURE (line-neutral):                     | Ta1 (seconds) =   |             |           |
| R. SHORT CIRCUIT ARMATURE (line-line):                        | Ta2 (seconds) =   |             |           |
| S. SHORT CIRCUIT ARMATURE (three phase):                      | Ta3 (seconds) =   |             |           |



- B. TRANSIENT REACTANCE:  $X' =$  , ,
- C. SUBTRANSIENT REACTANCE:  $X'' =$  , ,
- D. POSITIVE SEQUENCE REACTANCE:  $X_1 =$  , ,
- E. NEGATIVE SEQUENCE REACTANCE:  $X_2 =$  , ,
- F. ZERO SEQUENCE REACTANCE:  $X_0 =$  , ,
- G. STATOR LEAKAGE REACTANCE:  $X_L =$  , ,

3. TIME CONSTANTS:

- A. SHORT CIRCUIT TRANSIENT:  $T' \text{ (seconds)} =$
- B. SHORT CIRCUIT SUBTRANSIENT:  $T'' \text{ (seconds)} =$
- C. OPEN CIRCUIT TRANSIENT:  $T'o \text{ (seconds)} =$
- D. OPEN CIRCUIT SUBTRANSIENT:  $T''o \text{ (seconds)} =$

4. INERTIA CONSTANT (Including Turbine):

H (in seconds - on machine base): and  $WR^2 \text{ (lb-ft}^2\text{)}$ :

5. MECHANICAL POWER USED AT SYNCHRONOUS SPEED (MW):

6. TORQUE AT SYNCHRONOUS SPEED (pu):

7. AUXILIARY LOAD WITH GENERATOR IN SERVICE:

KW and KVA

8. ADDITIONAL GENERATOR INFORMATION:

- A. Attach a legible plot of generator air-gap and open-circuit saturation curves and short circuit characteristic.
- B. Attach a legible plot of generator reactive capability curves (MVAR output vs. MW output) and V curves.

9. PROVIDE DATA AND BLOCK DIAGRAM MODEL OF TURBINE AND GOVERNOR:

**MODELING DATA FOR NON-STANDARD GENERATORS WITH A POWER ELECTRONICS CONVERTER INTERFACE TO THE AC ELECTRIC POWER GRID**

Contact Manitoba Hydro for the data submission requirements for this type of generator.

**MODELING DATA FOR THE STEP-UP TRANSFORMER FOR THIS GENERATOR**

SITE NAME:

GENERATOR NUMBER OR UNIQUE IDENTIFIER:

(as given on the first sheet)

1. TRANSFORMER IDENTIFICATION:

- A. MANUFACTURER:
- B. MODEL/TYPE:
- C. SERIAL NUMBER:

2. TRANSFORMER DATA:

- A. RATINGS (KVA):
  - B. HIGH VOLTAGE WINDING Nominal Voltage (KV):  
CONNECTED grounded wye/ ungrounded wye/grounded through impedance wye/delta  
(list impedance and base if applicable):
  - C. LOW VOLTAGE WINDING Nominal Voltage (KV):  
CONNECTED grounded wye/ ungrounded wye/grounded through impedance wye/delta  
(list impedance and base if applicable):
3. IMPEDANCES GIVEN IN PER UNIT ON
- |                                  | KVA, | KV BASE |
|----------------------------------|------|---------|
| A. POSITIVE SEQUENCE RESISTANCE: |      | R1 =    |
| B. NEGATIVE SEQUENCE RESISTANCE: |      | R2 =    |
| C. ZERO SEQUENCE RESISTANCE:     |      | R0 =    |
| D. POSITIVE SEQUENCE REACTANCE:  |      | X1 =    |
| E. NEGATIVE SEQUENCE REACTANCE:  |      | X2 =    |
| F. ZERO SEQUENCE REACTANCE:      |      | X0 =    |
4. TAP SETTINGS
- A. ALL AVAILABLE TAP SETTINGS:
    - H.V. Taps (KV):
    - L.V. Taps (KV):
  - B. EXPECTED TAP SETTINGS:
    - H.V. Tap (KV):
    - L.V. Tap (KV):

Generator represents and warrants that the data for the individual generator and step-up transformer provided above in this exhibit is complete and accurate. Any additional engineering studies, infrastructure changes, delays, or equipment damage due to missing or inaccurate data is the responsibility of Generator. This data shall be verified as accurate and complete immediately **prior** to the generating units being commissioned and every 4 years afterwards (or as directed by the North American Electric Reliability Corporation or other applicable reliability organization policy once it has been finalized). Any changes in the data above once the generators are in-service must be immediately provided to Manitoba Hydro.

Name:	
Signature:	Date:
Title:	Email:
Company:	
Address:	
Phone:	Fax:



### ATTACHMENT 3

## INTERCONNECTION FACILITIES STUDY AGREEMENT FOR \_\_\_\_\_ (name of Facility)

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, [corporate description of Generator] existing under the laws of the Province of \_\_\_\_\_, sometimes hereinafter referred to as "Generator," and Manitoba Hydro, a corporation incorporated pursuant to the provisions of *The Manitoba Hydro Act*, C.C.S.M. c.H190. Generator and Manitoba Hydro each may be referred to as a "Party," or collectively as the "Parties."

### RECITALS

**WHEREAS**, Generator has submitted an Interconnection Request to Manitoba Hydro pursuant to the terms and conditions of the Manitoba Hydro Open Access Interconnection Tariff with respect to a \_\_\_ MW generation facility located or to be located at \_\_\_\_\_ (Facility); and

**WHEREAS**, Generator has requested that Manitoba Hydro prepare an Interconnection Facilities Study to determine the facilities necessary to accommodate the Interconnection Request, and to address any reliability problems identified in the Interconnection Evaluation Study;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed as follows:

- 1.0 The terms used in this Agreement with initial capitalization shall have the meanings specified in the Manitoba Hydro Open Access Interconnection Tariff.
- 2.0 Manitoba Hydro shall perform or cause to be performed an Interconnection Facilities Study ("Study") and prepare an Interconnection Facilities Study Report to be performed in accordance with the Manitoba Hydro Open Access Interconnection Tariff, subject to the assumptions set forth in Exhibit A of this Agreement .
- 2.1 Manitoba Hydro estimates that the Interconnection Facilities Study Report will be complete on or before \_\_\_\_\_.

- 3.0 The Study shall be based on the results of the Interconnection Evaluation Study performed for the Interconnection Request. Manitoba Hydro reserves the right to request additional technical information from Generator as may become necessary during the course of the Interconnection Facilities Study. If Generator's Interconnection Request is modified or the technical information provided is modified, incomplete, or inaccurate, the time to complete the Interconnection Facilities Study may be extended and/or the results may be inaccurate.
- 4.0 The final Interconnection Facilities Study Report ("Study Report") shall provide the following information:
- (i) Identification of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades;
  - (ii) A non-binding good faith estimate of the cost to install the Transmission Owner Interconnection Facilities and Interconnection System Upgrades;
  - (iii) A payment schedule for such costs;
  - (iv) A good faith estimate of the schedule to complete the installation of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades.
- 5.0 The estimated cost for performance of the Study and preparation of the Study Report is \$\_\_\_\_\_. Generator shall make an initial payment in the amount of \$\_\_\_\_\_ (representing the amount by which the estimated cost exceeds Generator's unused deposit), and provide evidence of Site Control (as attached) at the time of delivering the executed Agreement to Manitoba Hydro. Manitoba Hydro shall charge and Generator shall pay for all actual costs of the Study and Study Report (including all costs associated with determining a construction and payment schedule and the provision of explanatory comments and supporting documentation) after completion of the Study Report or withdrawal or termination of the Interconnection Request, whichever occurs first. Costs of the Study and Study Report shall include overhead costs. Such payment shall be due and payable within 30 days of the Generator being invoiced unless the Generator's Interconnection Request is terminated for insolvency pursuant to Section 16.2 of the Manitoba Hydro Open Access Interconnection Tariff, in which case the provisions of Section 16.2 of the Tariff shall apply.

If after completion of the Study Report, or upon withdrawal or termination of the Interconnection Request, the deposit paid by Generator exceeds the actual costs of the Study and preparation of the Study Report, Manitoba Hydro shall refund the

excess amount to Generator within 30 days or, at the direction of the Generator, apply the excess amount towards the costs to be paid by Generator pursuant to an Interconnection and Operating Agreement.

- 6.0 Actual interconnection of the Facility shall be subject to the provisions of the Manitoba Hydro Open Access Interconnection Tariff and applicable regulatory and any other required approvals.
- 7.0 This Agreement is subject to the provisions of the Manitoba Hydro Open Access Interconnection Tariff and the provisions of said Tariff are incorporated by reference herein.
- 8.0 This Agreement shall be governed and interpreted in accordance with the laws of the Province of Manitoba.
- 9.0 This Agreement shall not be assigned without the prior written consent of the other Party.
- 10.0 Any amendments to this Agreement shall be in writing and signed by the Parties.
- 11.0 This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and terminates and supersedes all prior oral and written representations. There are no representations, conditions, warranties or agreements, express or implied, with respect to or collateral to this Agreement other than those contained or expressly incorporated herein.
- 12.0 Manitoba Hydro is an independent contractor. This Agreement shall not create the relationship of employer and employee, principal and agent, partnership or joint venture between Manitoba Hydro and Generator or between Generator and any officers, employees or agents of Manitoba Hydro.
- 13.0 Generator acknowledges that Manitoba Hydro is relying upon information provided by the Generator and other parties in the preparation of the Study and Study Report.
- 14.0 Manitoba Hydro makes no representations or warranties with respect to the accuracy, completeness, reliability or suitability of the Study and Study Report. Generator assumes any and all risk and responsibility for use of, and reliance on, the Study and Study Report. Generator disclaims and waives any rights or remedies that it might otherwise have against Manitoba Hydro in contract, tort, equity or other legal cause of action for faults, errors, defects, inaccuracies, omissions, suitability or reliability of the Study and Study Report.

- 15.0 Generator agrees to indemnify and hold harmless Manitoba Hydro and its successors and assigns from and against all actions, causes of action, claims, damages, costs, liability, debts, demands, damage to property or persons, including damages, costs and losses suffered by Manitoba Hydro and claims brought against Manitoba Hydro by any third party whatsoever, in respect of, or arising directly or indirectly out of this Agreement.
- 16.0 All products of, or resulting from, the performance of the Study and preparation of the Study Report by Manitoba Hydro in the course of performing this Agreement, including but not limited to, all information, drawings, Reports, records, documents, research notes, data, photographs, maps, materials, drafts, working drafts, documents or tangible assets and any intellectual property therein, including patent, trademark, copyrights, design and trade secrets (hereinafter collectively referred to as “Service Product”) shall become the exclusive property of Manitoba Hydro immediately upon creation or assembly, notwithstanding the fact that all or a portion of the data provided by Generator may be incorporated within the Service Product. The Generator shall have no right to copy, modify, amend, alter, sell, lend or dispense of any such Service Products in any manner for any reason.
- 17.0 The Generator shall have no right to use the Service Products except for the purpose of determining whether the Generator shall proceed with having Manitoba Hydro provide Interconnection Service pursuant to an Interconnection and Operating Agreement or for the purpose of fulfilling Generator’s obligations pursuant to an Interconnection and Operating Agreement.
- 18.0 Neither Party shall be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure. However, a Party whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement. Neither Party shall be relieved of liability for failure of performance to the extent that such failure is due to a remediable cause which it fails to remove or remedy within a reasonable period of time.
- 18.1 In this Agreement, an event of “Force Majeure” means any act of God, labour disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s reasonable control which cause could not have been avoided by the exercise of Good Utility Practice. A Force

Majeure event does not include an act of negligence or intentional wrongdoing or economic hardship or insolvency.

- 18.2 If there is a Force Majeure event that has affected a Party's ability to perform its obligation under this Agreement the Party shall forthwith (and in any event no later than the end of the next business day after it first becomes aware that an occurrence constitutes a Force Majeure event) notify the other Party in writing of the reasons why it believes the occurrence constitutes a Force Majeure event, identifying the nature of the event, its expected duration, and the particulars of the obligations affected by the event, and furnish to the other Party reports with respect to the Force Majeure event at such intervals as the other Party may reasonably request during the continuance of the Force Majeure event.
- 18.3 If there is a Force Majeure event affecting a Party's ability to perform its obligations under this Agreement, the Party shall be prompt and diligent in removing, if practicable, the cause of such inability to perform, but nothing in this Agreement shall be construed as permitting a Party to continue to fail to perform after said cause has been removed. Notwithstanding the foregoing, a Party shall not be obligated to agree to any settlement of a strike or labour dispute which, in that Party's sole opinion, may be inadvisable or detrimental.
- 19.0 This Agreement may be executed in any number of counterparts, including counterparts signed by facsimile, each of which shall be deemed an original and all of which together shall constitute one and the same instrument. A photocopied and/or facsimile copy of this Agreement bearing a signature of each Party, in a single document or as counterparts thereof as provided for herein, shall be deemed an original executed version of this Agreement.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**Manitoba Hydro**

**[Insert name of Generator]**

By: \_\_\_\_\_  
 Name (typed or printed): \_\_\_\_\_  
 Title: \_\_\_\_\_

By: \_\_\_\_\_  
 Name (typed or printed): \_\_\_\_\_  
 Title: \_\_\_\_\_

**Exhibit A**  
**to**  
**Interconnection Facilities Study Agreement For \_\_\_\_\_**  
**Facility (name of**

The Interconnection Facilities Study will be based on the following assumptions:

Issued by: L. Midford  
Issued on: December 12, 2003  
Revised: March 16, 2012

Effective: April 16, 2012

**ATTACHMENT 3-A****GROUP INTERCONNECTION FACILITIES STUDY AGREEMENT FOR \_\_\_\_\_  
(name of Facility)**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, [corporate description of Generator] existing under the laws of the Province of \_\_\_\_\_, sometimes hereinafter referred to as "Generator," and Manitoba Hydro, a corporation incorporated pursuant to the provisions of *The Manitoba Hydro Act*, C.C.S.M. c.H190. Generator and Manitoba Hydro each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, Generator has submitted an Interconnection Request to Manitoba Hydro pursuant to the terms and conditions of the Manitoba Hydro Open Access Interconnection Tariff with respect to a \_\_\_ MW generation facility located or to be located at \_\_\_\_\_ (Facility); and

**WHEREAS**, Generator has requested that Manitoba Hydro prepare a Group Interconnection Facilities Study, in lieu of an individual Interconnection Facilities Study, to determine the facilities necessary to accommodate the Interconnection Request, and to address any reliability problems identified in the Group Interconnection Evaluation Study;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed as follows:

- 1.0 The terms used in this Agreement with initial capitalization shall have the meanings specified in the Manitoba Hydro Open Access Interconnection Tariff.
- 2.0 Manitoba Hydro shall perform or cause to be performed a Group Interconnection Facilities Study ("Study") and prepare a Group Interconnection Facilities Study Report to be performed in accordance with the Manitoba Hydro Open Access Interconnection Tariff, subject to the assumptions set forth in Exhibit A of this Agreement .
- 2.1 Manitoba Hydro estimates that the Group Interconnection Facilities Study Report will be complete on or before \_\_\_\_\_.

- 3.0 The Group Study shall be based on the results of the Group Interconnection Evaluation Study performed for the Interconnection Request. Manitoba Hydro reserves the right to request additional technical information from Generator as may become necessary during the course of the Group Interconnection Facilities Study. If technical information provided by the Generator or other Generators participating in the Group Study is modified, incomplete, or inaccurate, the time to complete the Group Interconnection Facilities Study may be extended and/or the results may be inaccurate.
- 4.0 The Group final Interconnection Facilities Study Report (“Study Report”) shall provide the following information for each Generator participating in the Group Study:
- (i) Identification of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades;
  - (ii) A non-binding good faith estimate of the total cost and each Generator’s allocation of said total cost to install the Transmission Owner Interconnection Facilities and Interconnection System Upgrades;
  - (iii) The payment schedule(s) for such costs;
  - (iv) A good faith estimate of the schedule to complete the installation of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades.
- 5.0 All Generators participating in a Group Study shall share equally in the Group Study cost. The estimated cost for performance of the Study and preparation of the Study Report is \$\_\_\_\_\_. Generator shall make an initial payment of \$\_\_\_\_\_ (representing the amount by which Generator’s portion of the estimated cost for performance of the Group Study and preparation of the Group Study Report exceeds Generator’s unused deposit), and provide evidence of Site Control (attached) at the time of delivering the executed Agreement to Manitoba Hydro. Manitoba Hydro shall charge and Generator shall pay its allocated share of all actual costs of the Group Study and Study Report (including all costs associated with determining a construction schedule and payment schedule and the provision of explanatory comments and supporting documentation) after completion of the Group Study Report or withdrawal or termination of the Interconnection Request, whichever occurs first. Actual costs of the Group Study and the Group Study Report shall include overhead costs. Such payment shall be due and payable within 30 days of the Generator being invoiced unless the Generator’s Interconnection Request is terminated for insolvency pursuant to Section 16.2 of



the Manitoba Hydro Open Access Interconnection Tariff, in which case the provisions of Section 16.2 of the Tariff shall apply.

If after completion of the Group Study Report, or upon withdrawal or termination of the Interconnection Request, the deposit paid by Generator exceeds the actual costs of the Group Study and preparation of the Group Study Report, Manitoba Hydro shall refund the excess amount to Generator within 30 days or, at the direction of the Generator, apply the excess amount towards the costs to be paid by Generator pursuant to an Interconnection and Operating Agreement.

- 6.0 Actual interconnection of the Facility shall be subject to the provisions of the Manitoba Hydro Open Access Interconnection Tariff and applicable regulatory and any other required approvals.
- 7.0 This Agreement is subject to the provisions of the Manitoba Hydro Open Access Interconnection Tariff and the provisions of said Tariff are incorporated by reference herein.
- 8.0 This Agreement shall be governed and interpreted in accordance with the laws of the Province of Manitoba.
- 9.0 This Agreement shall not be assigned without the prior written consent of the other Party.
- 10.0 Any amendments to this Agreement shall be in writing and signed by the Parties.
- 11.0 This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and terminates and supersedes all prior oral and written representations. There are no representations, conditions, warranties or agreements, express or implied, with respect to or collateral to this Agreement other than those contained or expressly incorporated herein.
- 12.0 Manitoba Hydro is an independent contractor. This Agreement shall not create the relationship of employer and employee, principal and agent, partnership or joint venture between Manitoba Hydro and Generator or between Generator and any officers, employees or agents of Manitoba Hydro.
- 13.0 Generator acknowledges that Manitoba Hydro is relying upon information provided by the Generator and other parties in the preparation of the Group Study and Group Study Report.

- 14.0 Manitoba Hydro makes no representations or warranties with respect to the accuracy, completeness, reliability or suitability of the Group Study and Group Study Report. Generator assumes any and all risk and responsibility for use of, and reliance on, the Group Study and Group Study Report. Generator disclaims and waives any rights or remedies that it might otherwise have against Manitoba Hydro in contract, tort, equity or other legal cause of action for faults, errors, defects, inaccuracies, omissions, suitability or reliability of the Group Study and Group Study Report.
- 15.0 Generator agrees to indemnify and hold harmless Manitoba Hydro and its successors and assigns from and against all actions, causes of action, claims, damages, costs, liability, debts, demands, damage to property or persons, including damages, costs and losses suffered by Manitoba Hydro and claims brought against Manitoba Hydro by any third party whatsoever, in respect of, or arising directly or indirectly out of this Agreement.
- 16.0 All products of, or resulting from, the performance of the Study and preparation of the Study Report by Manitoba Hydro in the course of performing this Agreement, including but not limited to, all information, drawings, Reports, records, documents, research notes, data, photographs, maps, materials, drafts, working drafts, documents or tangible assets and any intellectual property therein, including patent, trademark, copyrights, design and trade secrets (hereinafter collectively referred to as "Service Product") shall become the exclusive property of Manitoba Hydro immediately upon creation or assembly, notwithstanding the fact that all or a portion of the data provided by Generator may be incorporated within the Service Product. The Generator shall have no right to copy, modify, amend, alter, sell, lend or dispense of any such Service Products in any manner for any reason.
- 17.0 The Generator shall have no right to use the Service Products except for the purpose of determining whether the Generator shall proceed with having Manitoba Hydro provide Interconnection Service pursuant to an Interconnection and Operating Agreement or for the purpose of fulfilling Generator's obligations pursuant to an Interconnection and Operating Agreement.
- 18.0 Neither Party shall be considered in default as to any obligation under this Agreement if prevented from fulfilling the obligation due to an event of Force Majeure. However, a Party whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Agreement. Neither Party shall be relieved of liability for failure of performance to the extent that such failure is due to a remediable cause which it fails to remove or remedy within a reasonable period of time.

- 18.1 In this Agreement, an event of “Force Majeure” means any act of God, labour disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s reasonable control which cause could not have been avoided by the exercise of Good Utility Practice. A Force Majeure event does not include an act of negligence or intentional wrongdoing or economic hardship or insolvency.
- 18.2 If there is a Force Majeure event that has affected a Party’s ability to perform its obligation under this Agreement the Party shall forthwith (and in any event no later than the end of the next business day after it first becomes aware that an occurrence constitutes a Force Majeure event) notify the other Party in writing of the reasons why it believes the occurrence constitutes a Force Majeure event, identifying the nature of the event, its expected duration, and the particulars of the obligations affected by the event, and furnish to the other Party reports with respect to the Force Majeure event at such intervals as the other Party may reasonably request during the continuance of the Force Majeure event.
- 18.3 If there is a Force Majeure event affecting a Party’s ability to perform its obligations under this Agreement, the Party shall be prompt and diligent in removing, if practicable, the cause of such inability to perform, but nothing in this Agreement shall be construed as permitting a Party to continue to fail to perform after said cause has been removed. Notwithstanding the foregoing, a Party shall not be obligated to agree to any settlement of a strike or labour dispute which, in that Party’s sole opinion, may be inadvisable or detrimental.
- 19.0 This Agreement may be executed in any number of counterparts, including counterparts signed by facsimile, each of which shall be deemed an original and all of which together shall constitute one and the same instrument. A photocopied and/or facsimile copy of this Agreement bearing a signature of each Party, in a single document or as counterparts thereof as provided for herein, shall be deemed an original executed version of this Agreement.

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**Manitoba Hydro**

**[Insert name of Generator]**

By: \_\_\_\_\_

By: \_\_\_\_\_

Issued by: L. Midford  
 Issued on: December 12, 2003  
 Revised: March 16, 2012

Effective: April 16, 2012

Name (typed or printed): \_\_\_\_\_  
Title: \_\_\_\_\_

Name (typed or printed): \_\_\_\_\_  
Title: \_\_\_\_\_

**Exhibit A**  
**to**  
**Group Interconnection Facilities Study Agreement For \_\_\_\_\_**  
**of Facility** **(name**

The Group Interconnection Facilities Study will be based on the following assumptions:

Issued by: L. Midford  
Issued on: December 12, 2003  
Revised: March 16, 2012

Effective: April 16, 2012

**ATTACHMENT 4****Engineering and Procurement Agreement For \_\_\_\_\_ (name of Facility)**

This Engineering and Procurement Agreement (“Agreement”) is entered into this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

Between:

Manitoba Hydro

- and -

\_\_\_\_\_  
 (“Generator”)

WHEREAS Generator has submitted an Interconnection Request to Manitoba Hydro dated \_\_\_\_\_ (“Interconnection Request”) pursuant to the terms and conditions of the Manitoba Hydro Open Access Interconnection Tariff;

AND WHEREAS Manitoba Hydro has performed an Interconnection Evaluation Study with respect to Generator’s Interconnection Request and has provided Generator with an Interconnection Evaluation Study Report dated \_\_\_\_\_;

AND WHEREAS the Interconnection Evaluation Study Report contains a preliminary identification of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades (“Interconnection Facilities”) necessary to accommodate the Interconnection Request and a preliminary, non-binding estimate of the associated costs of such Interconnection Facilities;

AND WHEREAS Generator has executed an Interconnection Facilities Study Agreement dated \_\_\_\_\_;

AND WHEREAS Generator desires Manitoba Hydro to proceed, as soon as practicable, with certain engineering and procurement activities in advance of construction of the Interconnection Facilities notwithstanding the fact that the Interconnection Facilities Study has not been completed;

NOW THEREFORE Generator and Manitoba Hydro (“the Parties”) agree as follows:

**1. Scope of Authorized Activities**

Generator authorizes Manitoba Hydro to, as soon as practicable, begin the following

specified engineering, design, siting activities and procurement of long lead-time items necessary prior to connecting the Facility (as identified in Generator's Interconnection Request of (date)) to the Manitoba Hydro System ("Authorized Activities"):

## **2. Restriction**

Manitoba Hydro shall not begin construction of any Interconnection Facilities under this Agreement. All construction of Interconnection Facilities shall take place pursuant to the terms of an Interconnection and Operating Agreement executed by Generator pursuant to the provisions of the Manitoba Hydro Open Access Interconnection Tariff.

## **3. Performance Assurance**

Prior to commencement of any Authorized Activities by Manitoba Hydro, Generator shall provide Manitoba Hydro with the following assurance of creditworthiness, based on Manitoba Hydro's estimated cost of providing the Authorized Activities and Manitoba Hydro's policies governing creditworthiness: (insert amount and type of security if required).

## **4. Continuing Creditworthiness**

In the event Generator's creditworthiness becomes unsatisfactory to Manitoba Hydro, in its reasonably exercised discretion, Manitoba Hydro may demand that Generator provide either (i) the posting of a standby irrevocable letter of credit acceptable to Manitoba Hydro, Manitoba Hydro's financial institution and the issuing bank; (ii) a cash prepayment; (iii) the posting of other acceptable collateral or security by the Generator; (iv) a guarantee agreement executed by a creditworthy entity not affiliated with Generator; or (v) some other mutually agreeable method of providing assurance of payment satisfying Manitoba Hydro. Generator shall provide such reasonably satisfactory assurance of its ability to make payment under this Agreement within seven (7) days of demand by Manitoba Hydro. For the purposes of this Section, the Generator's creditworthiness shall be considered unsatisfactory to Manitoba Hydro, in its reasonably exercised discretion, for any of, but not limited to, the following reasons: failure of Generator to pay third parties; failure of Generator to pay Manitoba Hydro under separate contract(s); threat of Generator not to perform this Agreement; suspected insolvency of Generator; credit rating downgrades of Generator; other material adverse

changes in the Generator's financial condition. In order to assist Manitoba Hydro in such a determination, Generator shall deliver to Manitoba Hydro: (i) on the date of execution of this Agreement and thereafter within one hundred and twenty (120) days following the end of each fiscal year, a copy of Generator's annual report containing audited consolidated financial statements for such fiscal year and (ii) within sixty (60) days after the end of each of its first three (3) fiscal quarters of each fiscal year, a copy of Generator's quarterly report containing unaudited consolidated financial statements for such fiscal quarter. In all cases the statements shall be for the most recent accounting period and prepared in accordance with generally accepted accounting principles or such other principles then in effect, provided, however, that should any such statements not be available on a timely basis due to a delay in preparation or certification, Generator shall diligently pursue the preparation, certification and delivery of the statements.

## 5. Payments

- 5.1 Generator shall pay to Manitoba Hydro the actual costs (including overhead costs, taxes, amounts in lieu thereof, interest and financing costs) associated with Authorized Activities related to the Interconnection Facilities identified in the Interconnection Evaluation Study Report dated \_\_\_\_\_. Prior to Manitoba Hydro commencing the Authorized Activities and continuing throughout the term of this Agreement, Generator shall provide Manitoba Hydro with monthly cash deposits by wire transfer to the bank designated by Manitoba Hydro, or by other method acceptable to Manitoba Hydro, in amounts specified in the payment schedule attached as Appendix A to this Agreement. Manitoba Hydro shall provide Generator with monthly invoices itemizing the expenditures which have been drawn against the cash deposit(s). Manitoba Hydro shall have the right to adjust the estimated expenditures and the amount of the cash deposit(s) required from Generator as activities progress if actual expenditures begin to exceed the estimate. Generator's monthly cash deposits shall be kept in an interest bearing account and such interest shall accrue to Generator, being applied to the cost of Authorized Activities.
- 5.2 Within three (3) months after completion of the Authorized Activities or termination of this Agreement, Manitoba Hydro shall provide an invoice of the final expenditures for the Authorized Activities and shall set forth such costs in sufficient detail to enable Generator to compare the actual expenditures with the estimates and to ascertain deviations, if any, from the cost estimates. To the extent that the final, actual expenditures that Generator is obligated to pay hereunder exceed the estimated costs already paid by Generator hereunder for such purposes, Generator shall reimburse Manitoba Hydro for the amount of such difference within thirty (30) days after receipt of an invoice for such amount. To the extent that the estimated costs already paid by Generator hereunder for such



purposes exceed the final, actual costs that Generator is obligated to pay hereunder for such purposes, Manitoba Hydro shall refund to Generator an amount equal to the difference within thirty (30) days of the issuance of such final cost invoice.

- 5.3 Generator shall pay for any cancellation costs for equipment or other items that are already ordered for the project, if cancellation becomes necessary due to the Generator's decision not to proceed with the Interconnection Request or if Generator's Interconnection Request is deemed to be terminated pursuant to the provisions of Manitoba Hydro's Open Access Interconnection Tariff or due to termination of this Agreement for any other reason.

## **6. Invoices**

Each invoice issued pursuant to this Agreement shall (i) delineate the month in which the services were provided and/or costs incurred; (ii) fully describe the services to be rendered and/or costs incurred; and (iii) itemize the services and/or costs.

## **7. Credits**

Credits to Generator, if any, for amounts paid by Generator under this Agreement for Interconnection System Upgrades, less any amounts related to advanced facilities that are refunded under an Interconnection and Operating Agreement (bearing interest from the date of payment in accordance with Section 5.1 of this Agreement), shall be provided against Transmission Service charges under the Manitoba Hydro Open Access Transmission Tariff if:

- (i) Generator either becomes a Network Customer or its Facility becomes a Network Resource under the Manitoba Hydro OATT; and
- (ii) Manitoba Hydro is entitled to recover costs paid by Generator from Manitoba Hydro's rate base.

## **8. Tax Liability**

The Parties acknowledge that as of the date of this Agreement all payments made by Generator to Manitoba Hydro for the Authorized Activities are not subject to provincial or federal income tax pursuant to the provisions of the *Income Tax Act* (R.S.C. 1985 (5<sup>th</sup> Supp.), c.1) and *The Income Tax Act* (C.C.S.M. c.I10). With regard only to such contributions, Manitoba Hydro shall not include a gross-up for income taxes in the amounts it charges Generator for the Authorized Activities. Notwithstanding the foregoing provisions of this Section 8, in the event that at any time subsequent to the effective date of this Agreement the receipt of such payments by Manitoba Hydro

becomes subject to federal or provincial income tax, or any amount in lieu thereof, Generator shall protect, indemnify and hold harmless Manitoba Hydro and its affiliated and associated companies, from all such claims by any governmental authority including interest and/or penalties. Generator shall not be required to pay Manitoba Hydro for the income tax, amount in lieu thereof, interest and/or penalties prior to the seventh day before the date on which Manitoba Hydro is required to pay the tax, amount in lieu thereof, interest and/or penalties. In accordance with Section 3, Generator shall provide Manitoba Hydro with credit assurances sufficient to meet Generator's estimated liability for reimbursement of Manitoba Hydro for taxes, amounts in lieu thereof, interest and/or penalties under this Section 8.

#### **9. Tax Appeals**

At the reasonable request and sole expense of Generator, Manitoba Hydro and Generator shall cooperate in good faith to appeal, protest, seek abatement of, or otherwise contest any tax (other than income tax) or amount in lieu thereof asserted or assessed against Manitoba Hydro for which Generator may be required to reimburse Manitoba Hydro under the terms of this Agreement.

#### **10. Billing Disputes**

In the event of a billing dispute between Manitoba Hydro and Generator, Manitoba Hydro shall continue to perform Authorized Activities under this Agreement as long as Generator pays disputed amounts on or before the due date. If Generator fails to meet this requirement, then Manitoba Hydro may provide notice to terminate pursuant to Section 16 of this Agreement. In the event the dispute is resolved in favour of the Generator, Manitoba Hydro shall, within thirty (30) days of the resolution, make payment to the Generator with interest calculated in accordance with Section 12.

#### **11. No Deemed Waiver**

Payment of an invoice shall not constitute a waiver of any claims arising hereunder.

#### **12. Interest on Unpaid Amounts**

Interest on any unpaid amounts owing pursuant to Section 5.1 shall be calculated daily at the Prime Lending Rate plus two percent (2%) per annum, or the maximum rate permitted by law, whichever is less, from the date due until the date upon which payment is made.

#### **13. Ownership of Equipment**

Any equipment or other items procured by Manitoba Hydro for Generator pursuant to this Agreement shall be the property of the Generator until such time as the Effective Date of an Interconnection and Operating Agreement executed by Generator and Manitoba Hydro shall not be liable for any loss, damage to, or theft of such property. In the event that Generator does not execute an Interconnection and Operating Agreement and/or Generator's Interconnection Request is deemed to be terminated, such property shall be removed from Manitoba Hydro's premises within thirty (30) days of the termination of Generator's Interconnection Request. Failure of Generator to remove such property from Manitoba Hydro's premises shall result in the Generator relinquishing all claims and rights to such property.

#### **14. Intellectual Property**

All products of, or resulting from, the design of the Interconnection Facilities by Manitoba Hydro, including but not limited to all drawings, information, research notes, data, maps, materials, drafts, documents or tangible assets and any intellectual property therein, including patent, trademark, copyrights, design and trade secrets (collectively referred to as "Service Product") shall be the exclusive property of Manitoba Hydro immediately upon creation or assembly, notwithstanding the fact that all or a portion of the data provided by Generator may be incorporated into the Service Product. Generator shall have no right to copy, modify, amend, alter, sell, lend or dispense of any such Service Products in any manner for any reason.

#### **15. Application of Tariff**

This Agreement shall be subject to the terms and conditions of the Manitoba Hydro Open Access Interconnection Tariff as in effect on the date of the Interconnection Request and the provisions of said Tariff are incorporated herein.

#### **16. Termination**

This Agreement shall terminate upon the earlier of: (a) the Effective Date of an Interconnection and Operating Agreement executed by Generator and Manitoba Hydro pursuant to the provisions of the Manitoba Hydro Open Access Interconnection Tariff; (b) completion of all work and ordering of equipment required to be undertaken pursuant to this Agreement; (c) thirty (30) days written notice of either Party to terminate; (d) the date that Manitoba Hydro provides written notice to Generator that Generator has failed to make payment pursuant to Section 5.1 or provide security pursuant to Sections 3 or 4; (e) termination of the Generator's Interconnection Request. Notwithstanding termination of this Agreement, Generator shall be liable for all actual costs incurred by Manitoba Hydro pursuant to this Agreement during its term to the extent that such actual costs exceed the advance payments made by Generator pursuant to Section 5.1 hereof.

**17. Signing Authority**

Each of the undersigned represents and warrants that he or she is a duly authorized signing officer with authority to enter into this Agreement.

**18. Interpretation**

Unless specified otherwise, all capitalized terms used in this Agreement shall have the same meaning as set forth in the Manitoba Hydro Open Access Interconnection Tariff as in effect on the date of the Interconnection Request.

**19. Entire Agreement**

This Agreement constitutes the entire agreements among the Parties hereto with reference to the subject matter hereof and supercedes all prior oral and written communications pertaining hereto, except as specifically incorporated herein.

**20. Counterparts**

This Agreement may be executed in any number of counterparts, and each executed counterpart shall have the same force and effect as an original instrument.

**21. Binding Effects**

This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.

**22. Conflicts**

In the event of a conflict between the body of this Agreement and any Appendix hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed to be the final intent of the Parties.

**23. Assignment**

Neither Party shall assign this Agreement without the written consent of the other Party.

**24. Notices**

Any notice, demand or request required or permitted to be given by a Party to the other and any instrument required to permitted to be tendered or delivered by a Party in writing

to the other may be so given, tendered or delivered, as the case may be, by depositing the same with Canada Post with postage prepaid, for transmission by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out below or may be delivered electronically to the address set forth in Section 22:

To Transmission Provider:

Maria Neufeld  
Manager Transmission Services Department  
Manitoba Hydro Transmission Business Unit  
Manitoba Hydro  
P.O. Box 7950, Station Main  
Winnipeg, Manitoba R3C 0J1

or by courier to:

Manitoba Hydro  
820 Taylor Avenue, Winnipeg, Manitoba  
R3M 3T1

To Eligible Customer:

[Insert Eligible Customer Contact Information]

## **25. Alternative Forms of Notice**

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out below:

To Transmission Provider:

Maria Neufeld  
Voice telephone – 204-487-5458  
Facsimile telephone – 204-487-5496  
Email address – mneufeld@hydro.mb.ca

To Eligible Customer:

[Insert Eligible Customer Contact Information]

\_\_\_\_\_  
Date

Signed: \_\_\_\_\_  
Name

\_\_\_\_\_  
Title  
For Generator

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title  
For Manitoba Hydro

**ATTACHMENT 5**

**INTERCONNECTION AND OPERATING AGREEMENT  
FOR \_\_\_\_\_ (name of Facility)**

entered into by

Manitoba Hydro

and

[insert Generator's name]

on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_

## INTERCONNECTION AND OPERATING AGREEMENT

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**INTERCONNECTION AND OPERATING AGREEMENT  
FOR \_\_\_\_\_ (name of Facility)**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_ 20\_\_, by and between \_\_\_\_\_, [corporate description of Generator] existing under the laws of the Province of \_\_\_\_\_, sometimes hereinafter referred to as “Generator” and Manitoba Hydro, incorporated pursuant to *The Manitoba Hydro Act*, C.C.S.M. c.H190, sometimes hereinafter referred to as “Transmission Owner.” Generator and Transmission Owner, each may be referred to as a “Party” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, Generator intends to own and operate the Facility identified in Appendix B;

**AND WHEREAS**, the Facility is located adjacent to the System owned by Transmission Owner;

**AND WHEREAS**, Generator has requested, and Transmission Owner has agreed to enter into this Interconnection and Operating Agreement with Generator for the purposes of providing Interconnection Service to the Facility and to define the continuing responsibilities and obligations of the Parties with respect thereto;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed:

**ARTICLE 1  
DEFINITIONS**

Wherever used in this Agreement with initial capitalization, the following terms shall have the meanings specified or referred to in this Article 1. Terms used in this Agreement with initial capitalization not defined in this Article 1 shall have the meanings specified in the Manitoba Hydro Open Access Interconnection Tariff:

- 1.1** “Ancillary Services” shall mean the services provided by a generating facility that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the System in accordance with Good Utility Practice.

- 1.2** “Applicable Laws and Regulations” shall mean Canadian federal, provincial and local laws, ordinances, rules and regulations, and all duly promulgated orders and other duly authorized actions of any Governmental Authority having jurisdiction over the Parties, their respective facilities and/or the respective services they provide.
- 1.3** “Applicable Reliability Organization” shall mean any reliability standards organization whose standards the Transmission Owner has contracted to adhere to or having legal authority to set standards in the region in which the Facility is located.
- 1.4** “Applicable Reliability Organization Criteria and Requirements” shall mean the reliability standards and other requirements of an Applicable Reliability Organization that are legally in effect in the province of Manitoba.
- 1.5** “Black Start Service” shall mean the ability of Generator to commence operation of its Facility when Station Power is not available from the System.
- 1.6** “Breach” shall mean, subject to Section 11.2, the failure of a Party to perform or observe any term or condition of this Agreement and shall include, but not be limited to, the events described in Section 17.1.
- 1.7** “Breaching Party” shall mean a Party that is in Breach of this Agreement.
- 1.8** “Commercial Operation” shall mean the status of a Facility that has commenced generating electricity for sale, excluding electricity generated during Trial Operation.
- 1.9** “Commercial Operation Date” shall mean the date on which the Facility or a unit of the Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix C.
- 1.10** “Confidential Information” shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party, which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and any information supplied by either of the Parties to the other prior to the execution of this Agreement. Information is Confidential Information only if it is clearly

designated or marked in writing as confidential on the face of the document, whether provided electronically or in hard copy, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential, or if the information is deemed Confidential Information pursuant to the provisions of this Agreement.

- 1.11** “Control Area” shall mean an electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to:
- (a) match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
  - (b) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
  - (c) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and
  - (d) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.
- 1.12** “Default” shall mean the failure of a Party in Breach of this Agreement to cure such Breach in accordance with the provisions of Article 17.
- 1.13** “Effective Date” shall mean the date on which this Agreement becomes effective in accordance with Section 2.1.
- 1.14** “Emergency Condition” shall mean a condition or situation (i) that in the judgment of either Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Transmission Owner is imminently likely to cause a material adverse effect on the security of, or damage to the System or the electrical or transmission systems of others to which the System is directly or indirectly connected; or (iii) that in the judgment of Generator is imminently likely to cause damage to the Facility or Generator Interconnection Facilities. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition, unless one of the enumerated conditions or situations identified in this definition also exists.
- 1.15** “Energy Resource Interconnection Service” shall mean an Interconnection Service that allows the Generator to connect its Facility to the System to be

eligible to deliver the Facility's electric output using the existing firm or non-firm capacity of the Transmission System on an as available basis. Energy Resource Interconnection Service in and of itself does not convey Transmission Service.

- 1.16** "Facility" shall mean Generator's electric generating facility identified in the "as built" drawings provided to the Transmission Owner in accordance with Section 4.3 and as identified in Appendix B, but shall not include Generator Interconnection Facilities.
- 1.17** "Force Majeure" shall mean any cause beyond the control of the Party affected, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance or disobedience, labour dispute, labour or material shortage, sabotage, acts of public enemy, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian authorities, which, in any of the foregoing cases, by exercise of due diligence such Party could not reasonably have been expected to avoid, and which, by the exercise of due diligence, it has been unable to overcome. No Party shall be relieved of liability for failure of performance to the extent that such failure is due to causes arising out of its own negligence or due to removable or remediable causes which it fails to remove or remedy within a reasonable time. Nothing contained in this Agreement shall be construed to require a Party to settle any strike or labour dispute. Mere economic hardship of a Party does not constitute Force Majeure. A Force Majeure event does not include an act of negligence or intentional wrongdoing.
- 1.18** "Generator Interconnection Facilities" shall mean all facilities and equipment owned and/or controlled, operated and maintained by Generator on Generator's side of the Point of Interconnection as identified in Appendix B, including any modifications, additions, or upgrades made to such facilities and equipment.
- 1.19** "Good Utility Practice" shall have the same meaning as assigned to such term in the Manitoba Hydro Open Access Interconnection Tariff.
- 1.20** "Governmental Authority" shall mean any federal, provincial, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, arbitrating body, or other governmental authority having jurisdiction over either Party.
- 1.21** "Hazardous Substances" shall mean any chemicals, materials or substances defined as or included in the definition of "hazardous substances," "hazardous

wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law. For purposes of this Agreement, the term “Environmental Law” shall mean federal, provincial, and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders relating to pollution or protection of the environment, natural resources or human health and safety.

- 1.22** “In-Service Date” shall mean the date upon which the Generator reasonably expects that it will be ready to begin use of Transmission Owner Interconnection Facilities and the Generator’s Facility is energized in parallel with the Transmission Owner’s System.
- 1.23** “Initial Synchronization Date” shall mean the date upon which the Facility is initially synchronized and upon which Trial Operation begins.
- 1.24** “Interconnection Facilities” shall mean the facilities and equipment that are necessary to physically and electrically interconnect the Facility to the System, consisting of the Transmission Owner Interconnection Facilities and the Generator Interconnection Facilities identified in Appendices A-1 and B.
- 1.25** “Interconnection Request” shall mean the information and other requirements prescribed by Attachment 1 of the Manitoba Hydro Open Access Interconnection Tariff.
- 1.26** “Interconnection Requirements” shall mean either the Transmission Owner’s Transmission System Interconnection Requirements as published and revised from time to time or, with respect to connections to the Transmission Owner’s distribution system at 25 kV and below, the Transmission Owner’s Interconnection Guidelines for Connecting Distributed Resources to the Manitoba Hydro Distribution System as published and revised from time to time and, with respect to all interconnections, the Transmission Owner’s Generator Interconnection Operational Requirements as published and revised from time to time.
- 1.27** “Interconnection Service” shall mean the services provided by Transmission Owner pursuant to Article 4 of this Agreement. Interconnection Service does not include the right to obtain Transmission Service on the System, which service

shall be obtained in accordance with the provisions of the Manitoba Hydro OATT.

- 1.28** “Interconnection System Upgrades” shall mean the minimum necessary upgrades to the System that would not have been required but for an Interconnection Request, including (i) upgrades necessary to remove overloads and voltage criteria violations, and (ii) upgrades necessary to remedy short-circuit and/or stability problems resulting from the connection of the Facility to the System. Interconnection System Upgrades shall not include upgrades to the System that may be required to move power from the Point(s) of Interconnection to load, unless the Generator requests Network Resource Interconnection Service, and shall not include Transmission Owner Interconnection Facilities. Interconnection System Upgrades are identified in Appendix A-1 and are owned by the Transmission Owner.
- 1.29** “Manitoba Hydro OATT” shall mean the Open Access Transmission Tariff of Manitoba Hydro in effect, as amended or superseded from time to time, under which Transmission Service is provided on the System.
- 1.30** “Metering Equipment” shall mean all metering equipment installed at the metering points designated in Appendix A-1.
- 1.31** “Native Load Customers” shall mean the wholesale and retail power customers of the Transmission Owner on whose behalf the Transmission Owner has undertaken by statute, contract, regulatory or other legal requirements, to construct and operate the Transmission Owner’s System to meet the reliable electricity needs of such customers.
- 1.32** “Network Resource Interconnection Service” shall mean an Interconnection Service that allows the Generator to integrate its Facility with the System in a manner comparable to that in which the Transmission Owner integrates its generating facilities to serve Native Load Customers, Network Resource Interconnection Service in and of itself does not convey Transmission Service.
- 1.33** “NERC” shall mean the North American Electric Reliability Corporation.
- 1.34** “Non-Breaching Party” shall mean a Party that is not in Breach of this Agreement with regard to a specific event of Breach by another Party.
- 1.35** “Operating Requirements” shall mean the operating requirements identified in Appendix D.

- 1.36** “Point(s) of Interconnection” shall mean the point or points, shown in Appendix A-1, where the Generator Interconnection Facilities interconnect with the Transmission Owner Interconnection Facilities.
- 1.37** “Prime Lending Rate” shall mean the then current prime interest rate per annum as publicly announced from time to time by the Royal Bank of Canada at its main office in the City of Winnipeg, Manitoba as its preferred lending rate of interest charged to its most creditworthy Canadian customers, whether or not such interest rate is actually charged by said bank to any customer.
- 1.38** “Reasonable Efforts” shall mean, with respect to any action required to be made, attempted, or taken by a Party under this Agreement in the exercise of “Reasonable Efforts,” such efforts as are timely and consistent with Good Utility Practice that would be undertaken by a Party for the protection of its own interests under the conditions affecting such action, including but not limited to the amount of notice of the need to take such action and the duration and type of such action.
- 1.39** “Secondary Systems” shall mean control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers.
- 1.40** “Site Control” shall mean: (1) ownership of a leasehold interest in, or a right to develop a site for the purpose of constructing the Facility; or (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusive business relationship between Generator and the entity having the right to sell, lease or grant Generator the right to possess or occupy a site for such purpose.
- 1.41** “Station Power” shall mean energy used for operating the electrical equipment on the site of a Facility and/or for lighting, heating, air conditioning and office equipment needs of buildings located at such site used in the operation, maintenance or repair of the Facility, but excluding energy used for synchronous condenser operation and pumped storage.
- 1.42** “Subsequent Generator” shall mean any person or persons, other than Generator, that enters into an Interconnection and Operating Agreement with the Transmission Owner on or after the date of this Agreement.
- 1.43** “Switching and Tagging Rules” shall mean the Manitoba Hydro Corporate Safety and Occupational Health Rules as they may be amended from time to time.

- 1.44** “System” shall mean the transmission, subtransmission and distribution facilities owned and operated by Manitoba Hydro.
- 1.45** “System Protection Facilities” shall mean the equipment required to protect (i) the System, other delivery systems and/or other generating systems connected to the System from faults or other electrical disturbance occurring at the Facility, and (ii) the Facility from faults or other electrical system disturbance occurring on the System or on other delivery systems and/or other generating systems to which the System is directly or indirectly connected. System Protection Facilities shall include such protective and regulating devices as are identified in the Interconnection Requirements or that are required by Applicable Law and Regulations or as are otherwise necessary to protect personnel and equipment and to minimize deleterious effects to the System arising from the Facility.
- 1.46** “Transmission Owner Interconnection Facilities” shall mean all facilities and equipment owned and controlled, operated and maintained by the Transmission Owner on the Transmission Owner’s side of the Point(s) of Interconnection as identified in Appendix A-1, including any modifications, additions or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Facility to the Transmission System. Transmission Owner Interconnection Facilities do not include Interconnection System Upgrades, which are separately identified in Appendix A-1.
- 1.47** “Transmission Service” shall mean the delivery of electrical energy over the Transmission System pursuant to the terms and conditions of the Manitoba Hydro OATT.
- 1.48** “Transmission System” shall mean the facilities controlled or operated by the Transmission Owner that are used to provide Transmission Service under the Manitoba Hydro OATT.
- 1.49** “Trial Operation” shall mean the period during which Generator is engaged in on-site test operations and commissioning of the Facility and Generator Interconnection Facilities prior to Commercial Operation.



## ARTICLE 2 TERM OF AGREEMENT

- 2.1 Effective Date.** This Agreement shall become effective upon execution by the Parties.
- 2.2 Term.** This Agreement shall become effective as provided in Section 2.1 and shall continue in full force and effect until (i) the Parties mutually agree to terminate this Agreement; (ii) the date on which the Facility permanently ceases commercial operations for causes beyond the Generator's control; (iii) termination for Default occurs pursuant to Section 17.7 of this Agreement; (iv) the Agreement is deemed terminated after suspension of construction pursuant to Section 4.2.5.3; or (v) Generator, having no outstanding contractual obligations to the Transmission Owner under this Agreement, terminates this Agreement after providing the Transmission Owner with written notice at least sixty (60) days prior to the proposed termination date. No termination of this Agreement shall be effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination.
- 2.3 Survival.** The applicable provisions of this Agreement shall continue in effect after termination hereof to the extent necessary to provide for final billings, billing adjustments, the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect and for the enforcement of obligations that continue beyond the term of this Agreement as specifically provided herein.

## ARTICLE 3 INTERCONNECTION SERVICE

- 3.1 Obligation to Provide Service.** Subject to the provisions of this Agreement, the Transmission Owner shall provide Generator with \_\_\_\_\_ (Energy Resource/Network Resource) Interconnection Service for the Facility at the Point(s) of Interconnection for the term of this Agreement.
- 3.2 Limitations on Scope of Service.** Except as otherwise provided under this Agreement, Transmission Owner shall have no obligation under this Agreement (i) to pay Generator any wheeling or other charges for electric power and/or energy transferred through the Facility and/or the Generator Interconnection Facilities or for power or Ancillary Services provided by Generator; (ii) to make arrangements or pay for Transmission Service and Ancillary Services associated

with the delivery of electricity and ancillary electrical products produced by the Facility; (iii) to procure or supply electricity and ancillary electrical products to satisfy Generator's Station Power, maintenance or other electricity supply requirements; or (iv) to make arrangements under applicable tariffs for transmission service, losses, and Ancillary Services for the delivery of electricity and ancillary electrical products to the Facility.

**3.3 No Representations.** The Transmission Owner makes no representations to Generator regarding the availability of Transmission Service on the System, and Generator agrees that the availability of Transmission Service on the System may not be inferred or implied from the Transmission Owner's execution of this Agreement. If Generator wishes to obtain Transmission Service on the System, Generator must request such service in accordance with the provisions of the Manitoba Hydro OATT.

**3.4 Third-Party Impacts.** Generator acknowledges and agrees that from time to time during the term of this Agreement other persons may develop, construct and operate, or acquire and operate generating facilities located in the Control Area of the Transmission Owner, and construction or acquisition and operation of any such facilities, and reservations by any such other persons of Transmission Service under the Manitoba Hydro OATT may adversely affect the availability of Transmission Service for the Facility's electric output. Generator acknowledges and agrees that the Transmission Owner has no obligation under this Agreement to disclose to Generator any information with respect to third-party developments or circumstances, including the identity or existence of any such person or other facilities, except as otherwise provided in this Agreement.

#### **ARTICLE 4 CONSTRUCTION AND MODIFICATION OF INTERCONNECTION FACILITIES AND INTERCONNECTION SYSTEM UPGRADES**

**4.1 Interconnection Product Options.** Generator has selected the following type of Interconnection Service: \_\_\_\_\_, as described below:

##### **4.1.1 Energy Resource Interconnection Service.**

**4.1.1.1 The Product.** Energy Resource Interconnection Service allows Generator to connect the Facility to the System and be eligible to deliver the Facility's output using the existing firm or non-firm capacity of the Transmission System on an "as available" basis.

**4.1.1.2 Transmission Service Implications.** Under Energy Resource Interconnection Service, Generator is eligible to inject power from the Facility into and deliver power across the Transmission Owner's Transmission System on an "as available" basis up to the amount of MWs identified in the applicable stability and steady state studies to the extent the upgrades initially required to qualify for Energy Resource Interconnection Service have been constructed. No Transmission Service from the Facility is assured, but Generator may obtain Point-to-Point Transmission Service, Network Integration Transmission Service, or use secondary Network Integration Transmission Service, pursuant to the Manitoba Hydro OATT, up to the maximum output identified in the stability and steady state studies, provided that sufficient transmission capacity is available. In order for Generator to obtain the right to deliver or inject energy beyond the Point(s) of Interconnection or to improve its ability to do so, Transmission Service must be obtained pursuant to the provisions of the Manitoba Hydro OATT. The Generator's ability to inject its Facility output beyond the Point(s) of Interconnection, therefore, will depend on the existing capacity of Transmission Owner's Transmission System at such time as a Transmission Service request is made that would accommodate such delivery. The provision of Firm Point-to-Point Transmission Service or Network Integration Transmission Service may require the construction of Network Upgrades.

#### **4.1.2 Network Resource Interconnection Service.**

**4.1.2.1 The Product.** Network Resource Interconnection Service requires the Transmission Owner to conduct the necessary studies and construct the Interconnection System Upgrades needed to integrate the Facility in a manner comparable to that in which Transmission Owner integrates its generating facilities to serve Native Load Customers.

**4.1.2.2 Transmission Service Implications.** Network Resource Interconnection Service allows Generator's Facility to be designated by any Network Customer under the Manitoba Hydro OATT as a Network Resource, up to the Facility's full output, on the same basis as existing Network Resources interconnected to

Transmission Owner's Transmission System, and to be studied as a Network Resource on the assumption that such a designation will occur. Although Network Resource Interconnection Service does not convey a reservation of Transmission Service, any Network Customer under the Manitoba Hydro OATT can utilize its Network Service under the Manitoba Hydro OATT to obtain delivery of energy from the interconnected Generator's Facility in the same manner as it accesses Network Resources. Network Resource Interconnection Service does not necessarily provide Generator with the capability to physically deliver the output of its Facility to any particular load on Transmission Owner's Transmission System without incurring congestion or redispatch costs. In the event of transmission constraints on Transmission Owner's Transmission System, Generator's Facility shall be subject to the applicable congestion management procedures for Transmission Owner's Transmission System in the same manner as Network Resources. A Facility receiving Network Resource Interconnection Service may also be used to provide Ancillary Services after technical studies and /or periodic analyses are performed with respect to the Facility's ability to provide any applicable Ancillary Services, provided that such studies and analyses have been or would be required in connection with the provision of such Ancillary Services by any existing Network Resource. However, if a Generator's Facility has not been designated as a Network Resource by any load, it cannot be required to provide Ancillary Services except to the extent such requirements extend to all generating facilities that are similarly situated. There is no requirement either at the time of study or interconnection, or at any point in the future, that Generator's Facility be designated as a Network Resource by a Network Service Customer under the Manitoba Hydro OATT or that Generator identify a specific buyer (or sink). To the extent a Network Customer does designate the Facility as a Network Resource, it must do so pursuant to the Manitoba Hydro OATT. If the Transmission Owner determines that there has been a change in circumstances relevant to the Transmission Service studies between the date that the Interconnection Facilities Study is completed and the date when Transmission Service is requested pursuant to the terms of the Manitoba Hydro OATT, the provision of Network Integration Transmission Service or Firm Point-to-Point Transmission Service may require additional studies and the

construction of additional upgrades. Because such studies and upgrades would be associated with a request for delivery service under the Manitoba Hydro OATT, cost responsibility for the studies and upgrades would be in accordance with Transmission Owner's policy for pricing Transmission Service.

**4.1.2.3 Conditions.** Pursuant to Section 4.1.2.3 of the Manitoba Hydro Open Access Interconnection Tariff, Transmission Owner reserves the right to impose conditions on the provision of Network Resource Interconnection Service if Generator's Interconnection Study was performed out of queue order. Transmission Owner shall impose such conditions, as soon as reasonably practicable after completion of Interconnection Studies for higher queued requests, by revising Appendix D. Transmission Owner may also impose operating conditions on Generator pursuant to Section 12.4 of this Agreement so as to reduce the level of Interconnection Service provided.

**4.1.2.4 Additional Upgrades.** If Generator's Interconnection Request was processed out of queue order and Transmission Owner determines, after execution of this Agreement and the processing of higher queued Interconnection Requests, that the Interconnection System Upgrades identified in Appendix A-1 are insufficient to provide the full level of requested Interconnection Service and that operating conditions must be imposed, Generator may provide written notice to Transmission Owner requesting restudy to determine the additional Interconnection System Upgrades and associated costs for the provision of the full level of requested Interconnection Service. The costs of restudy and the associated report shall be borne by Generator and shall be invoiced by Transmission Owner pursuant to Section 13.4. If Generator wishes Transmission Owner to proceed with construction of the additional Interconnection System Upgrades, Transmission Owner shall offer Generator an amended Interconnection and Operating Agreement for execution within a specified period of time.

## **4.2 Construction.**

**4.2.1 Generator Obligations.** Generator shall, at its expense, design, procure, construct, and install the Facility and the Generator Interconnection Facilities in accordance with the Interconnection Evaluation Study, the

Interconnection Facilities Study, Interconnection Requirements and Good Utility Practice. The Generator Interconnection Facilities shall satisfy all requirements of applicable safety and/or engineering codes, including the Transmission Owner's, and further, shall satisfy Applicable Laws and Regulations. Generator shall enter into any necessary arrangements and agreements with interconnected transmission owners and/or operators related to upgrades or construction on the systems of third parties to accommodate the Generator's interconnection.

**4.2.2 Generator Specifications.** Generator shall submit all final specifications for Generator Interconnection Facilities, including System Protection Facilities associated with the Generator Interconnection Facilities, to the Transmission Owner for review and approval at least one hundred and eighty (180) days prior to the Initial Synchronization Date in order to ensure that the design, construction and installation of the Generator Interconnection Facilities are consistent with operational control, reliability, and/or safety standards or requirements of the Transmission Owner, the Interconnection Facilities Study and Interconnection Requirements. The Transmission Owner shall review and comment on such specifications within thirty (30) days.

**4.2.3 Transmission Owner Review.** The Transmission Owner's review of Generator's specifications shall be construed neither as confirming nor as endorsing the design, nor as any warranty as to fitness, safety, durability or reliability of the Generator Interconnection Facilities. Transmission Owner shall not, by reason of such review or failure to review, be responsible for strength, details of design, adequacy or capacity of Generator Interconnection Facilities, nor shall the Transmission Owner's acceptance be deemed to be an endorsement of all or any part of the Generator Interconnection Facilities. Generator shall make changes to the Generator Interconnection Facilities as may be required by the Transmission Owner in accordance with Good Utility Practice. The cost of such changes shall be borne in accordance with Section 4.4.4.

**4.2.4 Transmission Owner Obligations.** Subject to Sections 4.2.4.1 and 4.2.4.2, the Transmission Owner shall design, procure, construct and install, and Generator shall pay, consistent with Section 13.3, the cost of, all Transmission Owner Interconnection Facilities and Interconnection System Upgrades identified in Appendix A-1. Such costs shall include taxes, amounts in lieu thereof, financing costs, costs associated with seeking and obtaining all necessary approvals of designing, engineering,

constructing, and testing the Transmission Owner Interconnection Facilities and Interconnection System Upgrades (“Construction Expenditures”). All Transmission Owner Interconnection Facilities and Interconnection System Upgrades designed, procured, constructed, installed and maintained by the Transmission Owner pursuant to this Agreement shall satisfy all requirements of applicable safety and/or engineering codes, including those of the Transmission Owner, and comply with Good Utility Practice, and further, shall satisfy all Applicable Laws and Regulations. Transmission Owner Interconnection Facilities and Interconnection System Upgrades shall be owned by the Transmission Owner.

**4.2.4.1 Equipment Procurement.** Transmission Owner shall commence design of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades and procure the necessary equipment as soon as practicable after all of the following conditions are satisfied, unless the Parties agree otherwise in writing:

- (i) Transmission Owner has received written authorization to proceed with design and procurement from Generator by the date specified in Appendix A-2: “Milestones”; and
- (ii) Generator has provided security to Transmission Owner in accordance with Section 13.1 and as specified in Appendix A-2: “Milestones”.

**4.2.4.2 Construction Commencement.** Transmission Owner shall commence construction of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades identified in Appendix A-1 as soon as practicable after the following conditions are satisfied:

- (i) All government, regulatory and/or other approvals required for the Transmission Owner Interconnection Facilities, Interconnection System Upgrades, Generator Interconnection Facilities and the Facility that are identified in Appendix A-2 have been obtained;
- (ii) Generator has provided evidence, to the reasonable satisfaction of Transmission Owner, of its acquisition of the necessary real property rights to construct the Facility and Generator Interconnection Facilities;

- (iii) Transmission Owner has obtained the necessary real property rights in order to construct the Transmission Owner Interconnection Facilities and Interconnection System Upgrades;
- (iv) Generator has maintained in effect the security required by Transmission Owner in accordance with Section 13.1;
- (v) Transmission Owner has received written authorization to proceed with construction from Generator by the date specified in Appendix A-2: Milestones;
- (vi) Generator has provided Transmission Owner with a certificate of insurance pursuant to Article 15, unless Generator qualifies for self-insurance, and evidence of registration with the Workers Compensation Board of Manitoba.

**4.2.4.3 Approvals.** Generator and Transmission Owner shall cooperate with each other in good faith to obtain all legally required approvals. Each Party shall notify the other Party in writing as soon as practicable following the receipt or failure to obtain a legally required approval.

#### **4.2.5 Suspension of Work.**

**4.2.5.1 Right to Suspend on Notice.** Generator reserves the right, upon written notice to the Transmission Owner, to suspend, at any time, all work by the Transmission Owner associated with the construction and installation of the Transmission Owner Interconnection Facilities and/or the Interconnection System Upgrades. Notwithstanding the foregoing, a Generator that is sharing the costs of common Transmission Owner Interconnection Facilities and/or Interconnection System Upgrades with other Generators, pursuant to Section 7.1.12 of the Manitoba Hydro Open Access Interconnection Tariff, shall not have the right to suspend work without the written consent of the other Generators that are sharing in the costs of such facilities. A Generator that provides notice of suspension shall be responsible for the costs which the Transmission Owner incurs (i) in accordance with this Agreement prior to the suspension, and (ii) in suspending such work, including any costs incurred in order to perform such work as may be necessary to ensure the safety of



persons and property and the integrity of the System and, if applicable, any costs incurred in connection with the cancellation of contracts and orders for material or equipment which the Transmission Owner cannot reasonably avoid; provided, however, that, prior to canceling any such contracts or orders, the Transmission Owner shall obtain Generator's authorization. The Transmission Owner shall invoice Generator pursuant to Article 13 and use Reasonable Efforts to minimize its costs.

**4.2.5.2 Recommencing of Work.** If Generator requests the Transmission Owner to recommence such work, the Transmission Owner shall have no obligation to afford such work the priority it would have had but for the prior actions of Generator to suspend the work. In such event, Generator shall be responsible for any costs incurred in recommencing the work.

**4.2.5.3 Deemed Termination.** Once work has been recommenced, if Generator attempts to suspend the work a second time, this Agreement shall be deemed terminated as of the date of suspension. In the event Generator suspends the performance of work by the Transmission Owner pursuant to this Section 4.2.5 and has not requested resumption of such work required hereunder by written request to the Transmission Owner on or before the three hundred and sixty-fifth (365th) day after such requested suspension, this Agreement shall be deemed terminated.

**4.2.5.4 Right to Suspend Due to Default.** Transmission Owner reserves the right, upon written notice to Generator, to suspend, at any time, work by the Transmission Owner and the incurrence of additional expenses associated with the construction and installation of the Transmission Owner Interconnection Facilities and/or the Interconnection System Upgrades upon the occurrence of a Default by Generator pursuant to Section 17.5. Any form of suspension by Transmission Owner shall not affect Transmission Owner's right to terminate the work or this Agreement pursuant to Section 17.7. In such events, Generator shall be responsible

for costs which the Transmission Owner incurs as set forth in Section 4.2.5.1.

**4.2.5.5 Right to Suspend Due to Other Systems.** Transmission Owner, after consultation with Generator and representatives of such other systems, may defer construction of the Transmission Owner Interconnection Facilities or Interconnection System Upgrades if the upgrades on another system cannot be completed in a timely manner. Transmission Owner shall notify Generator in writing of the basis for any decision to defer construction and of the specific problems which must be resolved before Transmission Owner will initiate or resume construction.

#### **4.2.6 Construction Status.**

**4.2.6.1 Transmission Owner Status Reports.** The Transmission Owner shall inform Generator on a regular basis, and at such other times as Generator reasonably requests, of the status of the construction and installation of the Transmission Owner Interconnection Facilities and the Interconnection System Upgrades, including, but not limited to, the following information: (i) progress to date; (ii) a description of scheduled activities for the next period; (iii) the delivery status of all equipment ordered; and (iv) the identification of any event which the Transmission Owner reasonably expects may delay construction of, or may increase the cost by ten percent (10%) or more of, the Transmission Owner Interconnection Facilities and/or Interconnection System Upgrades.

**4.2.6.2 Generator Status Reports.** Generator shall inform Transmission Owner on a regular basis, and at such other times as Transmission Owner reasonably requests, of the status of the construction and installation of the Generator Interconnection Facilities including the following information: (i) progress to date; (ii) a description of scheduled activities for the next period; (iii) the delivery status of all equipment ordered; and (iv) the identification of any event which Generator reasonably expects may delay construction.

**4.2.7 Land Rights.** Upon reasonable notice and supervision by a Party, a Party ("Granting Party") shall furnish at no cost to the other Party ("Access Party") any necessary access for ingress and egress across lands owned or controlled by the Granting Party and/or its affiliates for the construction, operation and maintenance of necessary lines, substations, and other equipment to accomplish and operate interconnection of the Facility with the System under this Agreement and shall, at all reasonable times, give the Access Party, or its agents, free access for ingress and egress to such lines, substations, and equipment, for the purpose of implementing the provisions of this Agreement, and subject to the following provisions of this Section 4.2.7 and Subsections 4.2.7.1 and 4.2.7.2; provided, however, that, in exercising such access rights, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business, shall act in a manner consistent with Good Utility Practice, and adhere to the safety rules and procedures established by the Granting Party. An accessible, protected and satisfactory site selected upon mutual agreement by the Parties and located on premises owned or controlled by Generator, shall be provided by and at Generator's expense for installation of metering devices, unless the Transmission Owner elects to install meters on poles or other locations controlled by it. Generator grants to the Transmission Owner at all reasonable times and with reasonable supervision, the right of free ingress and egress to premises owned or controlled by Generator, for the purpose of installing, testing, reading, inspecting, repairing, operating, altering or removing any of the Transmission Owner's property located on premises owned or controlled by Generator.

**4.2.7.1 Other Property Owners.** Unless Generator is directed to do so by Transmission Owner, Transmission Owner shall make Reasonable Efforts to procure from the owners of any property not owned by Generator upon which the Transmission Owner Interconnection Facilities are to be installed any necessary rights of use, licenses, rights of way and easements, in a form reasonably satisfactory to the Transmission Owner, for the construction, operation, maintenance and replacement of the Transmission Owner Interconnection Facilities upon such property. Generator shall reimburse the Transmission Owner for all reasonable and documented costs incurred by the Transmission Owner in securing such rights.

**4.2.7.2 Safety.** In connection with the Access Party's exercise of rights under Section 4.2.7, while on the Granting Party's premises, the Access Party's personnel and agents shall comply with all applicable safety rules or regulations of the Granting Party that are communicated by the Granting Party to the Access Party. Further, the Access Party shall indemnify and hold harmless the Granting Party in accordance with the provisions of Article 16 from and against any claims or damages resulting from such access.

#### **4.2.8 Timely Completion and Testing.**

**4.2.8.1 Generator Obligations.** Generator shall use Reasonable Efforts to design, procure, construct, install, and test the Generator Interconnection Facilities in accordance with the schedule set forth in Appendix B, which schedule may be revised from time to time by mutual agreement of the Parties.

**4.2.8.2 Transmission Owner Obligations.** The Transmission Owner shall use Reasonable Efforts to design, procure, construct, install, and test the Transmission Owner Interconnection Facilities and Interconnection System Upgrades in accordance with the proposed Initial Synchronization Date, In-Service Date and Commercial Operation Date mutually agreed to by the Parties and set forth in Appendix A-1, which schedule may be revised from time to time by mutual agreement of the Parties. If any event occurs that will affect the time for completion of the Transmission Owner Interconnection Facilities or the Interconnection System Upgrades, or the ability to complete any of them, the Transmission Owner shall promptly notify Generator. In such circumstances, the Transmission Owner shall, within fifteen (15) days after notifying Generator of such an event and corresponding delay, convene a technical meeting between Generator and Transmission Owner to evaluate the alternatives available to Generator. The Transmission Owner shall also make available to Generator all studies and work papers related to the event and corresponding delay, including all information that is in the possession of the Transmission Owner that is reasonably

needed by Generator to evaluate alternatives. The Transmission Owner shall, at Generator's request and expense, use Reasonable Efforts to accelerate its work under this Agreement in order to meet the schedule set forth in Appendix A-1, provided that Generator authorizes such actions and the costs associated therewith in advance.

- 4.2.9 Limited Operation.** If any of the Interconnection System Upgrades are not reasonably expected to be completed prior to the proposed Commercial Operation Date of the Facility, Generator may, at its option, have operating studies performed at its expense to determine the maximum allowable output of the Facility and, subject to Applicable Laws and Regulations and applicable Transmission Owner and Applicable Reliability Organization Criteria and Requirements, Generator shall be permitted to operate the Facility, provided such limited operation of the Facility does not adversely affect the safety and reliability of the System.
- 4.2.10 Outage Costs.** If an outage of any part of the System is necessary to complete the process of constructing and installing the Interconnection Facilities or Interconnection System Upgrades, Generator shall be responsible for any verifiable costs or penalties incurred by Transmission Owner associated with any redispatch or market-related costs arising from such an outage. Such costs shall include, but shall not be limited to, switching costs, increased transmission losses and any redispatch or market-related costs.
- 4.2.11 Pre-Commercial Testing.** Prior to the Commercial Operation Date, the Transmission Owner, in cooperation with Generator, shall test the Transmission Owner Interconnection Facilities and Interconnection System Upgrades and Generator shall test the Facility and Generator Interconnection Facilities to ensure, to the Transmission Owner's satisfaction, their safe and reliable operation in accordance with Good Utility Practice, any applicable Transmission Owner and Applicable Reliability Organization Criteria and Requirements, including Interconnection Requirements and any Applicable Laws and Regulations ("Pre-Commercial Testing"). Generator shall provide validated test recordings showing the responses of the Facility's terminal and field voltages. In the event that direct recordings of these voltages is impractical, recordings of other voltages or currents that mirror the response of the Facility's terminal or field voltage are acceptable if information necessary to translate these alternate quantities to actual

Facility terminal or field voltages is provided. Facility testing shall be conducted and results provided to Transmission Owner for each individual generating unit in a Facility. Similar testing may be required after initial energization, but prior to Commercial Operation Date as required by Transmission Owner or the above-mentioned organizations. The cost of all such testing shall be borne by Generator. In generating test energy, Generator shall be responsible for complying with all Manitoba Hydro OATT provisions as well as any applicable generator imbalance provisions.

**4.2.12 Modifications Prior to Commercial Operation Date.** Based upon the Pre-Commercial Testing, Generator shall be responsible for making any modifications prior to the Commercial Operation Date that are necessary to ensure the safe and reliable operation of the Facility and Generator Interconnection Facilities in accordance with Good Utility Practice, all applicable Transmission Owner and Applicable Reliability Organization Criteria and Requirements, and all Applicable Laws and Regulations. The Transmission Owner is responsible for making any modifications prior to the Commercial Operation Date that are necessary to ensure the safe and reliable operation of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades in accordance with Good Utility Practice and all applicable Transmission Owner and Applicable Reliability Organization Criteria and Requirements, and all Applicable Laws and Regulations. The costs of all such modifications shall be borne by Generator.

**4.2.13 Commercial Operation.** Generator shall not commence Commercial Operation of the Facility or a unit of the Facility until such time as the Generator receives from the Transmission Owner a letter in the form of Appendix C to this Agreement confirming that (i) all construction and testing of the Facility, Interconnection System Upgrades and Interconnection Facilities has been completed to the Parties' mutual satisfaction; and (ii) the Facility (or unit) has been energized in parallel with the system; and (iii) the Facility or unit may commence Commercial Operation.

### **4.3 Drawings.**

**4.3.1 Generator Drawings.** Subject to the requirements of Article 20, within one hundred and twenty (120) calendar days after the Commercial Operation Date and ninety (90) calendar days after completion of any

modification to the Facility and/or the Generator Interconnection Facilities that may reasonably be expected to affect the System, Generator shall issue in a format specified by Transmission Owner, "as built" drawings and documentation for the Facility and Generator Interconnection Facilities to the Transmission Owner, unless the Parties reasonably agree that such drawings are not necessary. Such drawings and documentation shall include, but are not limited to: a one-line diagram, a site plan showing the Facility and Generator Interconnection Facilities, plan and elevation drawings showing the layout of the Generator Interconnection Facilities, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities connecting the Facility to the step-up transformers and Generator Interconnection Facilities, and the impedances for the associated step-up transformers and Facility (determined by factory tests).

**4.3.2 Transmission Owner Drawings.** Upon request of Generator, and at Generator's expense, Transmission Owner shall provide Generator with as-built drawings and documentation related to the Transmission Owner Interconnection Facilities and any subsequent modifications thereto.

#### **4.4 Modifications Subsequent to Commercial Operation Date.**

**4.4.1 General.** Subject to the remainder of the provisions in this Section 4.4, either Party may undertake modifications, additions or replacements ("modification") to its facilities subsequent to the Commercial Operation Date. In the event a Party plans to undertake a modification that reasonably may be expected to impact the other Party's facilities, that Party, in accordance with Good Utility Practice, shall provide the other Party with sufficient information regarding such modification, so that the other Party may evaluate the potential impact of such modification prior to commencement of the work, including information regarding when such additions, modifications or replacements are expected to be made; how long such additions, modifications or replacements are expected to take; whether such additions, modifications or replacements are expected to reduce or interrupt the flow of electricity from the Facility; and any other information that will enable the other Party to evaluate the impact of the proposed additions, modifications, or replacements on its facilities and/or operations prior to the commencement of work. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party at least ninety (90) days in advance of the beginning of the work, except in cases of an Emergency Condition, or

such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld or delayed.

- 4.4.2 Scheduling.** Except in cases of an Emergency Condition, if such additions, modifications or replacements are expected to interrupt or reduce the flow of electricity from the Facility, the Parties shall mutually agree in advance upon a schedule for such additions, modifications or replacements. Such agreement shall not be unreasonably withheld, conditioned or delayed. Any additions, modifications or replacements by Generator to the Facility that require Transmission Owner to make additions, modifications or replacements to the Transmission Owner Interconnection Facilities or the System shall not be scheduled until the Transmission Owner has completed the necessary modifications to its facilities and Generator has made payment pursuant to Section 4.4.4.
- 4.4.3 Standards.** Any additions, modifications, or replacements made to a Party's facilities shall be constructed and operated in accordance with this Agreement, Good Utility Practice, Applicable Laws and Regulations, Applicable Reliability Organization Criteria and Requirements, and Transmission Owner guidelines.
- 4.4.4 Modification Costs.** Unless required by Applicable Laws and Regulations, Generator shall not be responsible for the costs of any additions, modifications, or replacements made to the Transmission Owner Interconnection Facilities or the System by the Transmission Owner in its discretion or in order to facilitate the interconnection of a third-party to the Transmission Owner Interconnection Facilities or the System, or the provision of Transmission Service under the Manitoba Hydro OATT for such third-party. Generator shall, however, be responsible for payment in advance of the costs of (i) any additions, modifications, or replacements made to the Transmission Owner Interconnection Facilities or the System as a result of any additions, modifications, or replacements made by Generator to the Facility or (ii) additions, modifications, or replacements reasonably necessary to maintain or update the Generator Interconnection Facilities for reliability and safety purposes to the extent required by a review conducted pursuant to Section 4.2.3, Good Utility Practice or to comply with changes in Applicable Laws and Regulations, or Applicable Reliability Organization Criteria and Requirements.
- 4.4.5 Compliance with Interconnection Tariff.** The provisions of this Section



4.4 shall not apply to any Generator modifications that result in an increase in the capacity of a Facility or a Substantial Modification to a Facility, as defined by the Transmission Owner's Interconnection Requirements. Such modifications shall require the submission of an Interconnection Request pursuant to the Transmission Owner's Open Access Interconnection Tariff and shall be governed by the terms and conditions of said Tariff.

## **ARTICLE 5 OPERATIONS**

- 5.1 General.** The respective operations of the Transmission Owner and Generator under this Agreement shall comply with Interconnection Requirements, the Operating Requirements attached hereto as Appendix D; Applicable Reliability Organization Criteria and Requirements and the requirements, directions, manuals, standards, and guidelines of the Control Area in which the Facility is electrically located. To the extent that this Agreement does not specifically address or provide the mechanisms necessary to comply with such Interconnection Requirements, the Applicable Reliability Organization Criteria and Requirements and Control Area requirements, directions, manuals, standards, or guidelines, each Party shall provide to the other Party all such information available or reasonably obtainable as may reasonably be required to comply with such requirements, directions, manuals, standards, or guidelines and shall operate, or cause to be operated, their respective facilities in accordance with such requirements, directions, manuals, standards, or guidelines. To the extent that the Transmission Owner is assessed any penalties or other costs by NERC, the Applicable Reliability Organization or such Control Area and such penalties or other costs are due to Generator's action or inaction, Generator shall reimburse the Transmission Owner for such penalties or other costs.
- 5.2 Adverse Impacts.** Each Party shall use Reasonable Efforts to minimize any adverse impact on the other Party arising from its operations, including any action necessary to promptly reestablish the connection of the Generator Interconnection Facilities to the System in accordance with Good Utility Practice.
- 5.3 Operational Contact.** The Parties shall each identify one representative to serve as an Operational Contact to be the initial point of contact to coordinate the operational communication between the Parties to administer the implementation of this Agreement. Each Party shall notify the other Party in writing of the

personnel that it has appointed. Prompt notice in writing of changes to the identity of the Operational Contact shall be given by each Party to the other.

- 5.4 Transmission Owner Obligations.** The Transmission Owner shall cause the System and the Transmission Owner Interconnection Facilities to be operated, maintained and controlled (i) in a safe and reliable manner; (ii) in accordance with Good Utility Practice; (iii) in accordance with the Interconnection Requirements, applicable operational and/or reliability criteria, protocols, and directives, Applicable Reliability Organization Criteria and Requirements, and the Operating Requirements established pursuant to this Agreement; (iv) in accordance with Applicable Laws and Regulations; and (v) in accordance with the provisions of this Agreement.
- 5.5 Operating Instructions.** The Transmission Owner shall have direct control of the System. This responsibility and control will require that, from time to time, the Transmission Owner will provide operating instructions to Generator consistent with this Agreement, Good Utility Practice, applicable operational and/or reliability criteria, protocols, and directives, including Applicable Reliability Organization Criteria and Requirements, and Applicable Laws and Regulations. Generator shall inform the Transmission Owner of any consequential, negative impacts on Generator of the direction provided by the Transmission Owner to Generator. The Transmission Owner shall factor these impacts into the direction it then provides to Generator, to the extent considered feasible by the Transmission Owner. Any direction provided to Generator shall follow Good Utility Practice, applicable operational and/or reliability criteria, protocols, and directives, including Applicable Reliability Organization Criteria and Requirements, and Applicable Laws and Regulations, and shall consider the machine limitations of the Facility and shall be consistent with this Agreement.
- 5.6 Generator Obligations.** Generator shall operate and control the Facility and the Generator Interconnection Facilities (i) in a safe and reliable manner; (ii) in accordance with Good Utility Practice; (iii) in accordance with the Interconnection Requirements, applicable operational and/or reliability criteria, protocols, and directives, including Applicable Reliability Organization Criteria and Requirements, the Transmission Owner and the Operating Requirements established pursuant to this Agreement; (iv) in accordance with Applicable Laws and Regulations; and (v) in accordance with the provisions of this Agreement. After the Initial Synchronization Date and prior to the Trial Operation Date, Generator shall register with the Midwest Reliability Organization and provide evidence of said registration to Transmission Owner. The Generator shall operate the Facility and the Generator Interconnection Facilities in accordance with the

requirements of the Control Area of which it is part and in accordance with all directives of its Control Area operator and reliability coordinator, provided that such requirements and directives are not inconsistent with this Agreement, the Manitoba Hydro OATT, Good Utility Practice and Applicable Reliability Organization Criteria and Requirements and the directives of the Transmission Owner in accordance therewith.

**5.7 Operating Requirements.** Prior to the Trial Operation Date, the Transmission Owner shall establish Operating Requirements to promote coordinated and reliable operation of the Parties' respective facilities.

**5.7.1 Scope.** The Operating Requirements shall be attached as Appendix D and shall address, but not be limited to, the following items:

- i) System Protection Facilities;
- ii) Switching and Tagging Procedures;
- iii) Communications Requirements;
- iv) Metering Requirements;
- v) Data Reporting Requirements;
- vi) Training;
- vii) Capacity Determination and Verification;
- viii) Emergency Operations;
- ix) Identified Must-run Conditions;
- x) Provision of Ancillary Services;
- xi) Stability Requirements;
- xii) Generation Level Forecasting, Scheduling and Updates;
- xiii) Limitation of Operations;
- xiv) Maintenance and Testing;
- xv) Generation and Operation Control.

**5.7.2 Revisions.** Transmission Owner shall have the right to revise the Operating Requirements from time to time as deemed necessary, including for the purposes of imposing operating restrictions pursuant to Section 4.1.2.3, without the consent of Generator. Transmission Owner shall consider changes to the Operating Requirements proposed by Generator through the Operating Committee. Written notice of the revised Operating Requirements and their effective date shall be provided to Generator and included by the Parties in Appendix D.

**5.7.3 Effect.** Operating Requirements as established pursuant to Section 5.7 and as amended from time to time by the Transmission Owner shall be incorporated into and form part of this Agreement.

**5.8 Work Protection.** The Parties shall abide by Switching and Tagging Rules for:

- a) all work protection required to provide isolation at the Point(s) of Interconnection;
- b) all work protection required for work conducted by Transmission Owner personnel.

**5.9 Redispatch for Congestion Management.** Generator shall comply with the congestion management policies and procedures of Transmission Owner.

**5.10 Operating Expenses.** Generator shall be responsible for all expenses associated with operating and maintaining the Facility and the Generator Interconnection Facilities. Generator shall reimburse the Transmission Owner, by way of monthly payments pursuant to Section 13.4, for the actual cost incurred by the Transmission Owner for operating and maintaining the Transmission Owner Interconnection Facilities and Interconnection System Upgrades including, but not limited to, the cost of ordinary and extraordinary maintenance, replacements of equipment, taxes or grants in lieu of taxes, insurance and applicable administrative and general overheads. Notwithstanding the foregoing, Generator shall have no obligations under this Section 5.10 with respect to Interconnection System Upgrades to the extent that the Interconnection System Upgrades are rolled into the Transmission Owner's rate base.

**5.11 Protection and System Quality.** Generator shall, at its expense, install, maintain, and operate System Protection Facilities as a part of the Facility and the Generator Interconnection Facilities. Any System Protection Facilities that may be required on the Transmission Owner Interconnection Facilities or the System in connection with the operation of the Facility shall be installed by the Transmission Owner at Generator's expense.

**5.11.1 Requirements for Protection.** In compliance with applicable Interconnection Requirements, and Applicable Reliability Organization Criteria and Requirements, Generator shall provide, install, own, and maintain relays, circuit breakers, and all other devices necessary to promptly remove any fault contribution of the Facility to any short circuit occurring on the System not otherwise isolated by the Transmission Owner equipment. Such protective equipment shall

include, without limitation, a high speed disconnecting device or switch with load and short circuit interrupting capability to be located between the Facility and the System at an accessible, protected, and satisfactory site selected upon mutual agreement of the Parties. Generator shall be responsible for protection of the Facility and Generator's other equipment from such conditions as negative sequence currents, over-frequency or under-frequency, sudden load rejection, over-voltage or under-voltage, and generator loss-of-field. Generator shall be solely responsible for provisions to disconnect the Facility and Generator's other equipment when conditions on the System could adversely affect the Facility.

- 5.11.2 System Quality.** The design and operation of the Facility shall not cause excessive voltage excursions nor cause the voltage to drop below or rise above the range specified in the planning criteria defined in the Interconnection Requirements and consistent with Generator's obligation to meet the voltage schedule specified by the Transmission Owner. The Facility and Generator Interconnection Facilities shall not cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by the Interconnection Requirements and Applicable Reliability Organization Criteria and Requirements.
- 5.11.3 Notice of Changes.** Generator shall notify Transmission Owner 30 days in advance of Generator's intention to change protection and control settings. Transmission Owner may disallow any changes that, in the Transmission Owner's reasonably exercised discretion would result in a negative impact on the Transmission Owner's operation of its transmission facilities.
- 5.11.4 Transmission Owner Right to Inspect.** The Transmission Owner shall have the right, but shall have no obligation or responsibility to (i) observe Generator's tests and/or inspection of any of Generator's System Protection Facilities and other protective equipment; (ii) review the settings of Generator's System Protection Facilities and other protective equipment; and (iii) review Generator's maintenance records relative to the Facility, Generator Interconnection Facilities and/or Generator's System Protection Facilities and other protective equipment; (iv) direct changes to be undertaken by Generator to Generator's Facility, Generator Interconnection Facilities, System Protection Facilities and other protective equipment, based on such observations

and/or reviews, for lack of compliance with Interconnection Requirements. The foregoing rights may be exercised by the Transmission Owner from time to time as deemed necessary by the Transmission Owner upon reasonable notice to Generator. However, the exercise or non-exercise by the Transmission Owner of any of the foregoing rights of observation, review or inspection shall be construed neither as an endorsement or confirmation of any aspect, feature, element, or condition of the Facility, the Generator Interconnection Facilities or Generator's System Protection Facilities or other protective equipment or the operation thereof, nor as a warranty as to the fitness, safety, desirability, or reliability of same. Any information obtained by the Transmission Owner through the exercise of any of its rights under this Section 5.11.4 shall be deemed to be Confidential Information.

**5.11.5 Generator Right to Inspect.** Generator shall have the right, but shall have no obligation or responsibility to (i) observe Transmission Owner's tests and/or inspection of any of Transmission Owner Interconnection Facilities and associated protective equipment; (ii) review the settings of such Transmission Owner's protective equipment; and (iii) review Transmission Owner's maintenance records relative to the Transmission Owner Interconnection Facilities and associated protective equipment. The foregoing rights may be exercised by Generator from time to time as deemed necessary by the Generator upon reasonable notice to Transmission Owner. However, the exercise or non-exercise by Generator of any of the foregoing rights of observation, review or inspection shall be construed neither as an endorsement or confirmation of any aspect, feature, element, or condition of the Transmission Owner Interconnection Facilities and associated protective equipment or the operation thereof, nor as a warranty as to the fitness, safety, desirability, or reliability of same.

## **5.12 Outage Restoration, Interruptions, and Disconnection.**

### **5.12.1 Outage Restoration.**

**5.12.1.1 Unplanned Outage.** In the event of an unplanned outage of a Party's facility that adversely affects the other Party's facilities, the Party that owns or controls the facility out of service shall use Reasonable Efforts to promptly restore that facility to service.

**5.12.1.2 Planned Outage.** In the event of a planned outage of a Party's facility that adversely affects the other Party's facilities, the Party that owns or controls the facility out of service shall use Reasonable Efforts to promptly restore that facility to service.

**5.12.2 Disconnection.**

**5.12.2.1 Disconnection after Agreement Terminates.** Upon termination of this Agreement, the Transmission Owner may disconnect the Facility from the System.

**5.12.3 Interruptions.**

**5.12.3.1 Preservation of Reliable Operations.** Subject to the provisions of this Section 5.12.3.1, if required by Good Utility Practice to do so, the Transmission Owner may require Generator to curtail, interrupt or reduce deliveries of electricity if such delivery of electricity adversely affects the Transmission Owner's ability to perform such activities as are necessary to safely and reliably operate the System or interconnected sub-transmission or distribution system or if the Transmission Owner determines that curtailment, interruption or reduction is necessary because of an Emergency Condition, forced outages, operating conditions on its system, or any reason otherwise required by Applicable Laws and Regulations. The following provisions shall apply to any curtailment, interruption or reduction permitted under this Section 5.12.3.1:

- (a) The curtailment, interruption, or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;
- (b) Any such curtailment, interruption, or reduction shall be made in accordance with the terms and conditions of the Manitoba Hydro OATT;
- (c) Except during the existence of an Emergency Condition, when the curtailment, interruption, or reduction can be scheduled, the Transmission

Owner shall notify Generator in advance regarding the timing of such scheduling and further notify Generator of the expected duration.;

- (d) The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Facility, Interconnection Facilities, and the System to their normal operating state, consistent with system conditions and Good Utility Practice; and

**5.12.3.2 Interruptions for Other Causes.** Notwithstanding any other provision of this Agreement, the Transmission Owner shall not be obligated to accept, and the Transmission Owner may require Generator to curtail, interrupt or reduce, deliveries of energy if such delivery of energy impairs the ability of the Transmission Owner to construct, install, repair, replace or remove any of its equipment or any part of its system. Prior to any such curtailment, interruption or reduction, the Transmission Owner shall exercise good faith efforts under the circumstances to provide Generator with reasonable notice thereof.

**5.13 Operating Committee.** Transmission Owner shall constitute an Operating Committee to coordinate the operating and technical considerations of Generator's Interconnection Service. At least six (6) months prior to the expected Initial synchronization Date, Generator and Transmission Owner shall each appoint one representative and one alternate to the Operating Committee. Each Party shall notify the other Party of its appointment in writing. Such appointments may be changed at any time by similar notice. The Operating Committee shall meet as necessary, but not less than once each calendar year, to carry out the provisions of this Agreement. The Operating Committee shall perform all of its duties consistent with the provisions of this Agreement. Each Party shall cooperate in providing to the Operating Committee all information required in the performance of the Operating Committee's duties. All decisions and agreements, if any, made by the Operating Committee, shall be evidenced in writing. The duties of the Operating Committee shall include the following:

- (i) review data requirements and operating record requirements;
- (ii) review the requirements, standards, and procedures for data acquisition equipment, protective equipment, and any other equipment or software;



- (iii) annually review the one (1) year forecast of maintenance and planned outage schedules of Transmission Owner's and Generator's facilities at the Points of Interconnection;;
- (iv) coordinate the scheduling of maintenance and planned outages on the Interconnection Facilities, the Facility and other facilities that impact the normal operation of the interconnection of the Facility to the Transmission System;
- (v) ensure that information is being provided by each Party regarding equipment availability;
- (vi) perform such other duties as may be conferred upon it by mutual agreement of the Parties, provided such duties are not inconsistent with the terms of this Agreement.

## **ARTICLE 6 MAINTENANCE**

- 6.1 Transmission Owner Obligations.** Transmission Owner shall maintain the Transmission Owner Interconnection Facilities and Interconnection System Upgrades to the extent they might reasonably be expected to have an impact on the operation of the Facility and Generator Interconnection Facilities (i) in a safe and reliable manner; (ii) in accordance with Good Utility Practice; (iii) in accordance with the Interconnection Requirements, applicable operational and/or reliability criteria, protocols, and directives, including the Operating Requirements and Applicable Reliability Organization Criteria and Requirements; (iv) in accordance with Applicable Laws and Regulations; and (v) in accordance with the provisions of this Agreement.
- 6.2 Generator Obligations.** Generator shall maintain the Facility and the Generator Interconnection Facilities, (i) in a safe and reliable manner; (ii) in accordance with Good Utility Practice; (iii) in accordance with Interconnection Guidelines, applicable operational and/or reliability criteria, protocols, and directives, including the Operating Requirements and Applicable Reliability Organization Criteria and Requirements; (iv) in accordance with Applicable Laws and Regulations; and (v) in accordance with the provisions of this Agreement.
- 6.3 Maintenance Expenses.** Generator shall be responsible for all expenses associated with maintaining the Facility and the Generator Interconnection Facilities. The expense incurred by the Transmission Owner in maintaining the Transmission Owner Interconnection Facilities and Interconnection System Upgrades, including any costs related to switching requests made by Generator,

shall be included in the actual cost of operation and maintenance reimbursed to Transmission Owner as set forth in Section 5.10.

- 6.4 Coordination.** The Parties shall confer regularly to coordinate the planning and scheduling of preventative and corrective maintenance.
- 6.5 Inspections and Testing.** Each Party shall perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice and Applicable Reliability Organization Criteria and Requirements, as may be necessary to ensure the continued interconnection of the Facility with the System in a safe and reliable manner. Each Party shall also perform reasonable additional post-Commercial Operation Date testing upon advance written notice from the other Party, at Generator's expense.
- 6.6 Right to Observe Testing.** Each Party shall, at its own expense, have the right to observe the testing of any of the other Party's Interconnection Facilities whose performance may reasonably be expected to affect the reliability of the observing Party's facilities and equipment. Each Party shall notify the other Party in advance of its performance of tests of its Interconnection Facilities, and the other Party may have a representative attend and be present during such testing.
- 6.7 Cooperation.** Each Party agrees to cooperate with the other in the inspection, maintenance, and testing of those Secondary Systems directly affecting the operation of a Party's facilities and equipment which may reasonably be expected to impact the other Party. Each Party shall provide advance notice to the other Party before undertaking any work in these areas, especially in electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.
- 6.8 Observation of Deficiencies.** If a Party observes any deficiencies or defects on, or becomes aware of a lack of scheduled maintenance and testing with respect to, the other Party's facilities and equipment that might reasonably be expected to adversely affect the observing Party's facilities and equipment, the observing Party shall provide notice to the other Party that is prompt under the circumstance, and the other Party shall make any corrections required in accordance with Good Utility Practice. Any Party's review, inspection, and approval related to the other Party's facilities and equipment shall be limited to the purpose of assessing the safety, reliability, protection and control of the System and shall not be construed as confirming or endorsing the design of such facilities and equipment, or as a warranty of any type, including safety, durability or reliability thereof. Notwithstanding the foregoing, the inspecting Party shall have no liability

whatsoever for failure to give a deficiency notice to the other Party and the Party owning the Interconnection Facilities shall remain fully liable for its failure to determine and correct deficiencies and defects in its facilities and equipment.

**6.9 Exchange of Planned Outage Schedules.** In accordance with the Operating Requirements attached hereto as Appendix D and subject to Article 20, the Parties shall exchange non-binding schedules of planned outages for those facilities that could be expected to have a material effect upon the other Party with respect to operations or performance under this Agreement. Such schedules shall be developed in accordance with Good Utility Practice and shall be presented in a format agreed upon by the Parties. Such schedules shall include all applicable information including the following:

- (a) month, day and time of requested outage;
- (b) facilities impacted (such as unit number and description);
- (c) duration of outage;
- (d) purpose of outage;
- (e) amount of electrical capacity (in MWs) which is expected to be derated or off-line;
- (f) special conditions and remarks;
- (g) interaction/switching required;

**6.10 Review of Planned Outage Schedule.** Transmission Owner shall have the right, on a non-discriminatory basis, to review or to request modification of such schedules by such date as specified in the Operating Requirements attached hereto as Appendix D, consistent with the terms of this Agreement. The Parties shall use Reasonable Efforts to reach agreement on any such requested modifications by such time as specified in the Operating Requirements.

- (a) Each Party shall use Reasonable Efforts to accomplish all planned outages in accordance with the agreed upon schedule.
- (b) Subsequent changes to the agreed upon planned outage schedule may be requested and Transmission Owner shall use Reasonable Efforts to accommodate such changes but without any obligation to agree to revise the planned outage schedule.

**6.11 Generator Schedule Changes.** If Generator voluntarily accepts a change to the maintenance schedule submitted to the Transmission Owner to support a Transmission Owner request, Generator shall be compensated for any verifiable unavoidable costs of rescheduling such maintenance. To the extent practicable, these costs shall be determined by negotiation between the Transmission Owner

and Generator prior to implementation of the voluntary change in maintenance schedules and shall not reflect costs recovered in accordance with Section 7.6.

- 6.12 Transmission Owner Schedule Changes.** If, at any time, Generator desires Transmission Owner to perform maintenance during a time period other than as scheduled, Transmission Owner shall exercise Reasonable Efforts to meet Generator's request as long as it would not reasonably be expected to have an adverse impact upon Transmission Owner operations or cost of operations. If Generator's request is reasonably expected to have such an adverse impact and Generator agrees to reimburse Transmission Owner for any verifiable costs incurred in complying with the request, Transmission Owner shall exercise Reasonable Efforts to comply with Generator's request.

## **ARTICLE 7 EMERGENCIES**

- 7.1 Obligations.** Each Party agrees to comply with the Emergency Condition procedures required by Applicable Reliability Organization Criteria and Requirements, the Transmission Owner, and Generator.
- 7.2 Notice.** The Transmission Owner shall provide Generator with prompt notification of an Emergency Condition regarding the Transmission Owner Interconnection Facilities and/or the System that may reasonably be expected to affect Generator's operation of the Facility, if the Transmission Owner is aware of the Emergency Condition. Generator shall provide the Transmission Owner with prompt notification of an Emergency Condition regarding the Facility and/or the Generator Interconnection Facilities which may reasonably be expected to affect the System or the Transmission Owner Interconnection Facilities, if Generator is aware of the Emergency Condition. If the Party becoming aware of an Emergency Condition is aware of the facts of the Emergency Condition, such notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of Generator's and the Transmission Owner's facilities and operations, its anticipated duration, and the corrective action taken and/or to be taken, and shall be followed as soon as practicable with written notice.
- 7.3 Immediate Action.** In the event Generator has identified an Emergency Condition involving the System, Generator shall obtain the consent of the Transmission Owner personnel prior to performing any manual switching

operations at the Facility unless, in Generator's reasonable judgment, immediate action is required.

- 7.4 Transmission Owner Authority.** The Transmission Owner may, consistent with Good Utility Practice, take whatever actions or inactions with regard to the System it deems necessary during an Emergency Condition in order to (i) preserve public health and safety; (ii) preserve the reliability of the System and interconnected sub-transmission and distribution system; (iii) limit or prevent damage; and (iv) expedite restoration of service. The Transmission Owner shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Facility. An Emergency Condition may be declared on a day ahead basis by the Transmission Owner to ensure a secure and reliable System under expected normal operating and first contingency conditions. Notwithstanding any other provision of this Agreement, the Facility may be called upon by the Transmission Owner during a potential or an actual Emergency Condition to mitigate such Emergency Condition by, but not limited to, requesting Generator to start-up, shut-down, and increase or decrease the real or reactive power output of the Facility consistent with the provisions of Sections 9.3. As requested by the Transmission Owner, Generator shall assist the Transmission Owner with any restoration efforts of the System resulting from an Emergency Condition with compensation to be paid in accordance with Sections 7.6, 9.4 and 9.6.
- 7.5 Generator Authority.** Generator may, consistent with Good Utility Practice, take whatever actions or inactions with regard to the Facility it deems necessary during an Emergency Condition in order to (i) preserve public health and safety; (ii) preserve the reliability of the Facility; (iii) limit or prevent damage; and (iv) expedite restoration of service. Generator shall use Reasonable Efforts to minimize the effect of such actions or inaction on the System. The Transmission Owner shall use Reasonable Efforts to assist Generator in such actions.
- 7.6 Generator Compensation for Emergency Condition.** Generator shall be compensated for its provision of real power, and any unavoidable costs related to changes in maintenance and outage schedules directed by Transmission Owner for Emergency Condition purposes and other Emergency Condition services needed to support the System during an Emergency Condition. Compensation shall be in an amount equal to one hundred and twenty percent (120%) of the Generator's verifiable costs, excluding lost opportunity costs.
- 7.7 Interruption for Emergency Condition.** If at any time, in the Transmission Owner's reasonable judgment exercised in accordance with Good Utility Practice, the continued operation of the Facility would cause an Emergency Condition, the

Transmission Owner may curtail, interrupt, or reduce energy delivered from the Facility to the System subject to Section 5.12.3.1 until the condition which would cause the Emergency Condition is corrected and, where practicable, allow suitable time for Generator to remove or remedy such condition before any such curtailment, interruption, or reduction commences.

- 7.8 Disconnection in Event of Emergency Condition.** The Transmission Owner or Generator shall have the right to disconnect the Facility without notice if, in the Transmission Owner's or Generator's judgment, an Emergency Condition exists and immediate disconnection is necessary to protect persons or property from damage or interference caused by Generator's interconnection or lack of proper or properly operating System Protection Facilities. The other Party shall be notified of such disconnection. For purposes of this Section 7.8, System Protection Facilities may be deemed by the Transmission Owner to be not properly operating if the Transmission Owner's review under Article 6 discloses irregular or otherwise insufficient maintenance on the System Protection Facilities or that maintenance records do not exist or are otherwise insufficient to demonstrate that adequate maintenance has been and is being performed. If such maintenance records do not exist or are otherwise insufficient to demonstrate that adequate maintenance has been and is being performed, Generator shall have a reasonable opportunity to demonstrate to the Transmission Owner that the System Protection Facilities are operating properly through alternative documentation or by physical demonstration, provided that such alternative documentation or physical demonstration shall be subject to acceptance by the Transmission Owner in the exercise of its reasonable judgment.
- 7.9 Audit Rights.** Each Party shall keep and maintain records of actions taken during an Emergency Condition that may reasonably be expected to impact the other Party's facilities and make such records available for audit in accordance with Section 21.2.
- 7.10 Limited Liability.** No Party shall be liable to any other for any action it takes in responding to an Emergency Condition so long as such action is made in good faith and consistent with Good Utility Practice.

## **ARTICLE 8 SAFETY**

- 8.1 General.** All work performed by either Party that may reasonably be expected to affect the other Party shall be performed in accordance with Good Utility Practice

and all Applicable Laws and Regulations pertaining to the safety of persons or property. A Party performing work within the boundaries of the other Party's facilities must abide by the safety rules applicable to the site.

- 8.2 Environmental Releases.** Each Party shall notify the other Party, first verbally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities, related to the Facility, or the Interconnection Facilities, each of which may reasonably be expected to affect the other Parties. The notifying Party shall (i) provide the notice as soon as possible; (ii) make a good faith effort to provide the notice within twenty-four (24) hours after the Party becomes aware of the occurrence; and (iii) promptly furnish to the other Parties copies of any publicly available reports filed with any Governmental Authorities addressing such events.

## **ARTICLE 9 GENERATOR SERVICES**

- 9.1 Ancillary Services.** Subject to Section 9.2, if considered necessary through performance of an Interconnection Facilities Study, Generator is obligated to provide those Ancillary Services which the Transmission Owner is obligated to supply pursuant to the provisions of the Manitoba Hydro OATT, within its manufacturer's design limitations, to Transmission Owner at rates, terms and conditions negotiated by the Parties prior to the Effective Date of this Agreement and attached as Appendix E hereto.
- 9.2 Obligation to Supply Reactive Power.** The Facility's minimum capacitive reactive power capability shall meet the greater of the requirements specified in the Interconnection Requirements and the requirements specified in the Interconnection Facilities Study. Generator shall promptly supply reactive power to the System as directed by Transmission Owner, in accordance with Good Utility Practice, applicable operational and/or reliability criteria, protocols, and directives, including Applicable Reliability Organization Criteria and Requirements, Applicable Laws and Regulations and this Agreement. Generator shall respond to requests from the Transmission Owner to increase or decrease generator reactive power output in a manner consistent with Generator's obligation to operate and control the Facility as set forth in Article 5.
- 9.3 Reactive Power Operations.** Generator shall operate the Facility to maintain voltage schedules, reactive schedules, or power factor schedules at the Point(s) of Interconnection as prescribed by the Transmission Owner. Transmission Owner's

voltage schedules shall treat all sources of reactive power in the Control Area in an equitable, not unduly discriminatory manner. Transmission Owner shall exercise Reasonable Efforts to provide Generator with such voltage schedules at least one (1) day in advance and may make changes to such schedules as necessary to maintain reliability. If Generator is unable to maintain the specified voltage or power factor, Generator shall promptly notify Transmission Owner in accordance with the Operating Requirements. In the event that under normal System operating conditions the Facility is unable to consistently maintain a voltage schedule, a reactive schedule or power factor schedule, whichever is applicable, at the Point(s) of Interconnection as specified in Section 9.2, Transmission Owner may direct Generator to curtail the output of its Facility until voltage schedules, reactive schedules or power factor schedules, whichever is applicable are maintained, unless Generator has taken all such steps as are appropriate, in Transmission Owner's judgment, within the manufacturer's design limitations of the Facility, to reconfigure and/or operate the Facility to meet the standards specified by this Section. Records of requests made by the Transmission Owner, and records indicating actual responses to these requests, shall be maintained by the Transmission Owner and subject to a third-party independent audit at Generator's request and expense. Any such request for an audit shall be presented to the Transmission Owner by Generator no later than twenty-four (24) months following a request by the Transmission Owner request for reactive power in accordance with this Section 9.3

**9.4 Compensation for Reactive Power.** Generator shall not be entitled to compensation for the supply of reactive power as required by Section 9.2. If the Transmission Owner requests Generator to install reactive power capability that exceeds the capability specified in Section 9.2, and Generator provides such capability, then Generator is entitled to compensation in accordance with this Section. In the case where the Generator has installed reactive capability greater than specified by the Transmission Owner in Section 9.2 (other than pursuant to a request from Transmission Owner) and the Transmission Owner requests Generator to supply this excess capability, from time to time, Generator shall be entitled to compensation as per this Section. Generator shall be entitled to compensation for reactive power as follows:

- For the amount of reactive power capability installed by Generator in excess of the requirements of Section 9.2 at the request of the Transmission Owner, the Transmission Owner shall pay Generator, at Transmission Owner's discretion, either the amount of the verifiable capital, operating, maintenance and administration costs directly attributable to the generation of the excess reactive power as identified by



Generator in Appendix E or a rate established by Generator that recovers such costs as identified in Appendix E.

- For the amount of reactive power capability which Generator installed in excess of that required under Section 9.2, but which was not requested to be installed by Transmission Owner, which Generator is requested to produce from time to time, compensation shall be based on Generator's rate schedule as specified in Appendix E. Compensation shall be provided only for the lesser of the amount of reactive power requested and the amount of reactive power provided, and only for each time period and duration as requested by the Transmission Owner.

**9.5 Black Start Service.** Generator shall be obligated to provide Black Start Service if deemed necessary by the Transmission Owner pursuant to the Interconnection Facilities Study.

**9.6 Compensation for Black Start Service.** Generator shall be entitled to compensation for verifiable costs associated with installation, operation and maintenance of the facilities necessary to provide Black Start Service in an amount to be determined by the Parties prior to execution of this Agreement and set forth in Appendix E.

**9.7 Station Service.** Generator shall be responsible for making all appropriate arrangements for Station Power requirements, including Transmission Service, if applicable. If Generator supplies its Station Power, the station service loads shall be instantaneously netted against Generator's output. Generator shall procure Station Power through one of the following means: (i) self supply; (ii) the retail purchase of energy; (iii) treating Station Power as Network Load to be scheduled and delivered through the reservation of Network Integration Transmission Service by the Generator pursuant to the Manitoba Hydro OATT.

**9.8 Must Run Service.** If Transmission Owner has designated one or more units of Generator's Facility as a must run unit, pursuant to the provisions of the Transmission Owner's Open Access Interconnection Tariff, Generator and Transmission Owner shall enter into good faith negotiations to determine the rates, terms and conditions upon which Generator shall provide such must run service. Said rates, terms and conditions must be agreed upon prior to execution of this Agreement and shall be set forth in Appendix E.

## **ARTICLE 10 METERING**

- 10.1 General.** Unless otherwise agreed by the Parties, the Transmission Owner shall provide, install, operate, maintain, own and/or control suitable Metering Equipment at the Point(s) of Interconnection prior to any operation of the Facility, excluding check metering. Generator shall supply, own, install and maintain check metering in accordance with the Transmission Owner's Interconnection Requirements if Generator determines that such metering is desirable. Check meters shall be subject, at all reasonable times, to inspection and examination by the Transmission Owner or its designee. Power flows to and from the Facility shall be measured at or, at the Transmission Owner's option, compensated to the Point(s) of Interconnection. Metering quantities, in analog and/or digital form, shall be provided to Generator upon request. All costs associated with the operation, maintenance and administration of Metering Equipment and communication facilities and the provision of metering data to Generator shall be borne by Generator. The costs of providing metering data shall be separately itemized on the Transmission Owner's invoice to Generator. All reasonable costs associated with either the initial installation of metering or any changes to Metering Equipment, shall be borne by Generator.
- 10.2 Standards.** Revenue quality Metering Equipment shall be installed, calibrated, repaired, replaced, maintained and tested in accordance with the provisions of the *Electricity and Gas Inspection Act* (R.S.C. 1985, c.E-4) as amended from time to time, Interconnection Requirements, Operating Requirements, and any policies of the Transmission Owner.
- 10.3 Testing of Metering Equipment.** The Transmission Owner shall inspect and test all Transmission Owner-owned Metering Equipment upon installation and at least once every two (2) years thereafter. Such testing shall be at the expense of Generator unless Generator's electricity supply agreement for Station Power with the Transmission Owner specifies otherwise. If requested to do so by Generator, the Transmission Owner shall inspect or test Metering Equipment more frequently than every two (2) years, at the expense of Generator. The Transmission Owner shall give reasonable notice of the time when any inspection or test shall take place, and Generator may have representatives present at the test or inspection. Unless provided otherwise by the *Electricity and Gas Inspection Act* or other Applicable Laws and Regulations, if Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Generator's expense, in order to provide accurate metering. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies

by more than one percent (1%) from the measurement made by the standard meter used in the test, adjustment shall be made correcting all measurements made by the inaccurate meter for (i) the actual period during which inaccurate measurements were made, if the period can be determined, or if not, (ii) the period immediately preceding the test of the Metering Equipment equal to one-half the time from the date of the last test of the Metering Equipment; provided that the period covered by the correction shall not exceed six months. Each Party shall maintain and make available for review by the other Party records and/or copies of such records of all meter tests and maintenance conducted by such Party pursuant to this Section 10.3.

**10.4 Metering Data.** If the Parties have not made other arrangements, if hourly and/or daily energy readings are not available to be transmitted to the Transmission Owner and the readings are available to Generator and if such data are requested by the Transmission Owner, Generator shall report same to the Transmission Owner's representatives as indicated in Operating Requirements established pursuant to Article 5 and attached as Appendix D, by telephone or electronically or as the Parties otherwise agree, on a schedule to be agreed upon. At Generator's expense, Generator's metered data shall be telemetered to a location designated by the Transmission Owner and one or more locations designated by Generator.

## **10.5 Communications.**

**10.5.1 Generator Obligations.** At Generator's expense, Generator shall maintain satisfactory operating communications with the Transmission Owner's system dispatcher or representative, as designated by the Transmission Owner, as applicable. Generator shall provide standard voice line, dedicated voice line and facsimile communications at its Facility control room and control facility through use of the public telephone system. Generator shall also provide the dedicated data circuit(s) necessary to provide necessary generator data to the Transmission Owner as identified in Operating Requirements established pursuant to Article 5 and attached as Appendix D. The data circuit(s) shall extend from the Facility to a location(s) specified by the Transmission Owner or its designate. Any required maintenance of such communications equipment shall be performed at Generator's expense, and may be performed by Generator or by the Transmission Owner. Operational communications shall be activated and maintained under, but not be limited to, the following events: (i) system paralleling or separation; (ii) scheduled and unscheduled shutdowns; (iii) equipment clearances; and (iv) hourly and daily load data.

**10.5.2 Remote Terminal Unit.** Prior to any operation of the Facility, a Remote Terminal Unit (“RTU”) or equivalent data collection and transfer equipment acceptable to both Parties shall be installed by Generator, or by the Transmission Owner at Generator's expense, to gather accumulated and instantaneous data to be telemetered to a location(s) designated by the Transmission Owner through use of a dedicated point-to-point data circuit(s) as indicated in Section 10.5.1. The communication protocol for this data circuit(s) shall be specified by the Transmission Owner. Instantaneous bi-directional analog real power and reactive power flow information must be telemetered directly to the location(s) specified by the Transmission Owner. Generator shall, subject to Article 20 electronically provide the real time status of station switching equipment (e.g., power circuit breakers, motor operated air break switches) and real time measurements of electrical parameters, including step-up transformer telemetry, bus voltages and line/transformer watt var and ampere flows to Transmission Owner’s control center or successor in function. Transmission Owner shall specify communications protocols for this telemetry. The accuracy of this metering equipment shall be plus or minus two percent (+/- 2%) or better.

**10.6 Removal of Metering Equipment.** Upon termination of this Agreement, each Party owning Metering Equipment, including any check-metering equipment, on the other Party's property shall remove, within ninety (90) days, such Metering Equipment from the premises of the other Party.

## **ARTICLE 11 FORCE MAJEURE**

**11.1 Notice.** The Party unable to carry out an obligation imposed on it by this Agreement due to Force Majeure shall notify the other Party in writing or by telephone within a reasonable time after the occurrence of the cause relied on. Telephone notices given pursuant to this Section shall be confirmed in writing as soon as reasonably possible. Written notices shall state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease.

**11.2 Duration of Force Majeure.** Except as set forth in Section 11.3, no Party shall be considered in Breach or Default as to any obligation under this Agreement if

prevented from fulfilling the obligation due to an event of Force Majeure. A Party shall not be responsible for any non-performance or be considered in Breach or Default under this Agreement due to Force Majeure whether occurring on the System, the Facility, the Interconnection Facilities or any connecting electric generating, transmission or distribution system affecting the Party's operations. A Party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the Party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing Party is able to resume performance of its obligations excused as a result of the occurrence of Force Majeure, such Party shall give prompt notice thereof to the other Parties.

- 11.3 Obligation to Make Payments.** Any Party's obligation to make payments for services rendered shall not be suspended by Force Majeure.

## **ARTICLE 12 INFORMATION REPORTING**

- 12.1 Information Reporting Obligations.** Each Party shall, in accordance with Good Utility Practice, promptly provide to the other Parties all relevant information, documents, or data regarding the Party's facilities and equipment as prescribed below and any information which may reasonably be expected to pertain to the reliability of the other Party's facilities and equipment which has been reasonably requested by the other Party.
- 12.2 Information Submission by Transmission Owner.** The initial information submission by Transmission Owner shall occur no later than one hundred eighty (180) calendar days prior to Trial Operation and shall include Transmission System information necessary to allow Generator to select equipment and meet any system protection and stability requirements, unless otherwise agreed to by the Parties.
- 12.3 Updated Information Submission by Generator.** Generator shall update the information provided in its Interconnection Request, including manufacturer information, no later than one hundred eighty (180) calendar days prior to Trial Operation. Generator shall submit a completed copy of the Facility data requirements contained in its Interconnection Request. It shall also include any additional information provided to Transmission Owner for the Interconnection Studies. Information in this submission shall be the most current Facility design or expected performance data. Information submitted for stability models shall be compatible with Transmission Owner standard models. If there is no compatible

model, Generator will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

**12.4 Consequences of Data Modifications.** If, in Transmission Owner's sole, unfettered discretion, Generator's data is materially different from what was originally provided to Transmission Owner pursuant to the Interconnection Study Agreement between Transmission Owner and Generator, then Transmission Owner shall conduct appropriate operational studies to determine the impact on the Transmission System based on the updated actual data submitted pursuant to Section 12.3 and consequently, the ability of Transmission Owner to provide the requested Interconnection Service with the Transmission Owner Interconnection Facilities and Interconnection System Upgrades identified in Appendix A-1. The cost of such studies and any other costs associated with the changes in Generator's data shall be borne solely by Generator and shall be invoiced pursuant to Section 13.4. The Generator shall not begin Trial Operation until such studies are completed. Based on the extent of the data modifications and/or the results of such operational studies, Transmission Owner may impose operating conditions on Generator in Appendix D so as to reduce the level of Network Resource Interconnection Service provided by Transmission Owner; and either: (i) require Generator to submit a new Interconnection Request for the incremental amount of Interconnection Service necessary for Transmission Owner to provide the full amount of Interconnection Service originally requested, or (ii) offer Generator an amended Interconnection and Operating Agreement so as to modify the Transmission Owner Interconnection Facilities and/or Interconnection System Upgrades identified in Appendix A-1 required for the requested Interconnection Service and the costs associated therewith.

## **ARTICLE 13 CREDITWORTHINESS, BILLING AND PAYMENTS**

**13.1 Creditworthiness.** If required by Transmission Owner in accordance with its policies governing creditworthiness, by the earlier of (i) thirty (30) days prior to the due date for Generator's first payment under the payment schedule specified in Appendix A-1 or (ii) the first date specified in Appendix A-1 for the ordering of equipment by Transmission Owner for installing the Transmission Owner Interconnection Facilities and/or Interconnection System Upgrades, Generator shall provide the Transmission Owner with a form of adequate assurance of creditworthiness satisfactory to Transmission Owner. If the adequate assurance is a parental guarantee or surety bond, it must be made by an entity that meets the creditworthiness requirements of the Transmission Owner, have terms and

conditions reasonably acceptable to the Transmission Owner and guarantee payment of the entire estimated amount that will be due under this Agreement during its term. If the adequate assurance is a standby letter of credit, it must be irrevocable, issued by a bank reasonably acceptable to the Transmission Owner and must be acceptable to the Transmission Owner and the Transmission Owner's financial institution and the issuing bank, and specify a reasonable expiration date. The surety bond must be issued by an insurer reasonably acceptable to the Transmission Owner, specify a reasonable expiration date and may provide that the maximum amount assured under the bond shall reduce on a monthly basis in accordance with the monthly payment schedule. Such security for payment shall be in an amount determined by Transmission Owner in accordance with its policies on creditworthiness, taking into account the costs of designing, engineering, constructing and testing, the Transmission Owner Interconnection Facilities and Interconnection System Upgrades as well as the costs of decommissioning such Facilities in the event that Commercial Operation does not commence. After the interconnection has been placed in service, Generator shall, subject to the standards of this Section 13.1, maintain a parental guarantee, surety bond, letter of credit, or some other credit assurance sufficient to meet its monthly payment obligation under Section 5.10 and its obligations under Section 13.7. At least sixty (60) days prior to the date on which the interconnection is anticipated to be placed in service and at least annually thereafter, the Transmission Owner shall notify Generator of the estimated monthly payment obligation under Section 5.10. Generator's estimated liability under Section 13.7 is stated in Appendix A-1.

**13.2 Generator's Continuing Creditworthiness.** In the event Generator's creditworthiness becomes unsatisfactory to Transmission Owner, in its reasonably exercised discretion, for amounts for which payment is not otherwise assured, Transmission Owner may demand that Generator provide either (i) the posting of a standby irrevocable letter of credit acceptable to the Transmission Owner, Transmission Owner's financial institution and the issuing bank; (ii) the posting of other acceptable collateral or security by the Generator; (iii) a guarantee agreement executed by a creditworthy entity not affiliated with Generator; or (iv) some other mutually agreeable method of providing assurance of payment satisfying Transmission Owner. Failure of Generator to provide such reasonably satisfactory assurances of its ability to make payment under this Agreement within seven (7) days of demand therefore shall be an event of Default under Article 17 of this Agreement and Transmission Owner shall have the right to exercise any of the remedies provided for in Article 17. For the purposes of this Section, the Generator's creditworthiness shall be considered unsatisfactory to the Transmission Owner, in its reasonably exercised discretion, for any of, but not

limited to, the following reasons: failure of Generator to pay third parties; failure of Generator to pay Transmission Owner under separate contract(s); threat of Generator not to perform this Agreement; suspected insolvency of Generator; credit rating downgrades of Generator; other material adverse changes in the Generator's financial condition. In order to assist the Transmission Owner in such a determination, Generator shall deliver to Transmission Owner (i) within 120 days following the end of each fiscal year, a copy of Generator's annual report containing audited consolidated financial statements for such fiscal year and (ii) within 60 days after the end of each of its first three fiscal quarters of each fiscal year, a copy of Generator's quarterly report containing unaudited consolidated financial statements for such fiscal quarter. In all cases the statements shall be for the most recent accounting period and prepared in accordance with generally accepted accounting principles or such other principles then in effect, provided, however, that should any such statements not be available on a timely basis due to a delay in preparation or certification, Generator shall diligently pursue the preparation, certification and delivery of the statements.

### **13.3 Construction Costs and Credits.**

**13.3.1 Costs.** Generator shall pay to the Transmission Owner the actual costs (including taxes, amounts in lieu thereof, interest and financing costs) associated with seeking and obtaining all necessary approvals and of designing, engineering, constructing, and testing the Transmission Owner Interconnection Facilities and the Interconnection System Upgrades ("Construction Expenditures"), as identified in Appendix A-1, in accordance with this Section 13.3.

**13.3.2 Advance Payment.** Prior to the Transmission Owner commencing construction of the Transmission Owner Interconnection Facilities and any Interconnection System Upgrades and continuing throughout the construction period, Generator shall provide Transmission Owner with monthly cash deposits by wire transfer to the bank designated by Transmission Owner or by other method acceptable to the Transmission Owner, in amounts to be determined by the Transmission Owner in accordance with the payment schedule attached in Appendix A-1. Transmission Owner shall provide Generator with monthly invoices itemizing the Construction Expenditures which have been drawn against the cash deposit. Transmission Owner shall have the right to adjust the estimated Construction Expenditures and the amount of the cash deposit(s) required from Generator as construction advances if actual



Construction Expenditures begin to exceed the estimate. Generator's monthly cash deposits shall be kept in an interest bearing account and such interest shall accrue to Generator, and shall be applied by Transmission Owner to Construction Expenditures.

**13.3.3 Final Invoice for Construction Expenditures.** Within six (6) months after completion of the construction of the Transmission Owner Interconnection Facilities and the Interconnection System Upgrades, the Transmission Owner shall provide an invoice of the final Construction Expenditures for the Transmission Owner Interconnection Facilities and the Interconnection System Upgrades and shall set forth such costs in sufficient detail to enable Generator to compare the actual Construction Expenditures with the estimates and to ascertain deviations, if any, from the cost estimates. To the extent that the final, actual Construction Expenditures that Generator is obligated to pay hereunder for the construction of the Transmission Owner Interconnection Facilities and the Interconnection System Upgrades exceeds the estimated costs already paid by Generator hereunder for such purposes, Generator shall reimburse the Transmission Owner for the amount of such difference within thirty (30) days after receipt of an invoice for such amount in accordance with Section 13.6 of this Agreement. To the extent that the estimated costs already paid by Generator hereunder for such purposes exceed the final, actual costs that Generator is obligated to pay hereunder for such purposes, the Transmission Owner shall refund to Generator an amount equal to the difference within thirty (30) days of the issuance of such final cost invoice. The Transmission Owner shall use Reasonable Efforts to minimize its costs.

**13.3.4 Credits.** Credits to Generator, if any, for amounts paid by Generator for Interconnection System Upgrades under this Section 13.3 (bearing interest from the date of payment in accordance with Section 13.3.2.), less any amounts refunded pursuant to Section 13.3.5 shall be provided against Transmission Service charges under the Manitoba Hydro OATT if:

- (i) Generator either becomes a Network Customer or its Facility becomes a Network Resource under the Manitoba Hydro OATT; and
- (ii) Transmission Owner is entitled to recover costs paid by Generator from the Transmission Owner's rate base.

Notwithstanding the foregoing, Generator shall not be entitled to credits for amounts paid pursuant to Section 4.2.5.1, Section 4.2.5.2, Section 4.2.10 or Section 18.2.2. Such credits may be assigned in writing by Generator to a third party.

**13.3.5 Refunds.** A Generator that advances Interconnection System Upgrades that are part of Transmission Owner's transmission expansion plan pursuant to Section 10.3 of the Manitoba Hydro Open Access Interconnection Tariff, shall be entitled to a lump sum refund equal to the depreciated value of the advanced Interconnection System Upgrades as at the date of refund, payable within thirty (30) days of the date when the costs of said facilities are included in Transmission Owner's retail electricity rates.

**13.4 Invoices For Other Costs.** Each Party shall render invoices to the other Party on a monthly basis for reimbursable services provided or reimbursable costs incurred under this Agreement other than Construction Expenditures paid by Generator under Section 13.3.

**13.5 Invoice Requirements.** Each invoice issued pursuant to Section 13.4 shall (i) delineate the month in which the services were provided and/or costs incurred; (ii) fully describe the services to be rendered and/or costs incurred; and (iii) itemize the services and/or costs.

**13.6 Payment.** An invoice issued pursuant to Section 13.4 shall be paid within thirty (30) days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party.

**13.7 Taxes.**

**13.7.1 Indemnification for Contributions in Aid of Construction.** The Parties acknowledge that as of the date of this Agreement all payments made by Generator to Transmission Owner for the installation of the Transmission Owner Interconnection Facilities and the Interconnection System Upgrades are not subject to provincial or federal income tax pursuant to the provisions of the *Income Tax Act* (R.S.C. 1985 (5<sup>th</sup> Supp.), c.1) and *The Income Tax Act* (C.C.S.M. c.I10). With regard only to such contributions, Transmission Owner shall not include a gross-up for income taxes in the amounts it charges Generator for the

installation of the Transmission Owner Interconnection Facilities and the Interconnection System Upgrades. Notwithstanding the foregoing provisions of this Section 13.7.1, in the event that at any time subsequent to the Effective Date the receipt of such payments by the Transmission Owner becomes subject to federal or provincial income tax, or any amount in lieu thereof, Generator shall protect, indemnify and hold harmless Transmission Owner and its affiliated and associated companies, from all such claims by any Governmental Authority including, interest and/or penalties. Generator shall not be required to pay Transmission Owner for the income tax, amount in lieu thereof, interest and/or penalties prior to the seventh (7th) day before the date on which Transmission Owner is required to pay the tax, amount in lieu thereof, interest and/or penalties. In accordance with this Article 13, Generator shall provide Transmission Owner with credit assurances sufficient to meet Generator's estimated liability for reimbursement of Transmission Owner for income taxes, amounts in lieu thereof, interest and/or penalties under this Section 13.7.1. Such estimated liability shall be stated in Appendix A-1.

**13.7.2 Other Taxes.** The Transmission Owner and Generator shall cooperate in good faith to appeal, protest, seek abatement of, or otherwise contest, at Generator's reasonable request and sole expense, any tax (other than income tax) or amount in lieu thereof asserted or assessed against the Transmission Owner for which Generator is required to reimburse the Transmission Owner under the terms of this Agreement.

**13.8 Billing Disputes.** In the event of a billing dispute between the Transmission Owner, and/or Generator, the Transmission Owner shall continue to provide Interconnection Service under this Agreement as long as Generator pays disputed amounts on or before the due date. If Generator fails to meet this requirement for continuation of service, then the Transmission Owner may provide notice to Generator of a Breach pursuant to Section 17.4. In the event the dispute is resolved in favor of the Generator, the Transmission Owner shall, within thirty (30) days of the resolution, make payment to the Generator with interest calculated in accordance with Section 13.10.

**13.9 Waiver.** Payment of an invoice shall not relieve the paying Party from any other responsibilities or obligations it has under this Agreement, nor shall such payment constitute a waiver of any claims arising hereunder.

- 13.10 Interest.** Interest on any unpaid amounts owing pursuant to Sections 13.3.3 and 13.6 shall be calculated daily at the Prime Lending Rate plus two percent (2%) per annum, or the maximum rate permitted by law, whichever is less, from the date due until the date upon which payment is made.
- 13.11 Performance During Dispute.** Subject to Section 13.8, in the event of a billing dispute between the Transmission Owner and Generator, each Party shall continue to perform its obligations under this Agreement.
- 13.12 Set Off.** In the event that any payment required under this Agreement is not made within ninety (90) days following the date upon which it is due, a Party shall have the right, without liability, to offset any payments, including interest, due such Party against any payments owed to the other Party under this Agreement; provided, that a Party shall not be allowed to offset disputed amounts that have been paid pursuant to Section 13.8 pending resolution of a billing dispute.

#### **ARTICLE 14 ASSIGNMENT**

- 14.1 General.** Neither Party shall voluntarily assign its rights nor delegate its duties under this Agreement, or any part of such rights or duties, without the written consent of the other Party, which consent shall not be unreasonably withheld or delayed, except in connection with the sale, merger, or transfer of a substantial portion or all of its properties including the Interconnection Facilities which it owns so long as the assignee in such a sale, merger, or transfer directly assumes in writing all rights, duties and obligations arising under this Agreement. Prior to the effective date of any assignment pursuant to this Section 14.1 by Generator, the assignee shall demonstrate to the Transmission Owner that the assignee will comply with the requirements of Article 13 on the effective date of the assignment, and such assignor shall be, without further action, released from its obligations hereunder. Any such assignment or delegation made without such written consent shall be null and void. In addition, the Transmission Owner shall be entitled to assign this Agreement to any wholly-owned direct or indirect subsidiary of the Transmission Owner.
- 14.2 Assignment.** Notwithstanding the provisions of Section 14.1, Generator may assign this Agreement, including the right to receive Transmission Service credits under Section 13.3.4, and shall be, without further action, released from the obligations of this Agreement, without the Transmission Owner's prior consent to any future owner that purchases or otherwise acquires, directly or indirectly, all or

substantially all of the Facility provided that prior to the effective date of any such assignment, the assignee demonstrates to Transmission Owner that the assignee will comply with the provisions of Article 13 on the effective date of the assignment and assumes all other rights, duties, and obligations arising under this Agreement in a writing provided to the Transmission Owner. In addition and also notwithstanding the provisions of Section 14.1, Generator or its assignee may assign this Agreement to the persons, entities or institutions providing financing or refinancing for the development, design, construction or operation of the Facility and Generator Interconnection Facilities, provided that such assignment does not affect compliance with Article 13 and with all other rights, duties and obligations arising under this Agreement. If Generator provides notice thereof to the Transmission Owner, the Transmission Owner shall provide notice and reasonable opportunity for such lenders to cure any Default under this Agreement. The Transmission Owner shall, if requested by such lenders, execute its standard documents and certificates as may be requested with respect to the assignment and status of this Agreement, provided such documents do not change the rights of the Transmission Owner under this Agreement. Such standard documents and certificates shall include, if true at the time the statement is to be made, statements that (i) this Agreement is in full force and effect and that neither Generator, nor Transmission Owner are in Default; (ii) all representations made by the Transmission Owner in this Agreement are true and complete as of the specified date; and (iii) all conditions to be satisfied by the Transmission Owner on or prior to the specified date have been satisfied. In the event of any foreclosure by such lenders, the purchasers at such foreclosure or any subsequent purchaser, shall upon request, be entitled to the rights and benefits of (and be bound by) this Agreement so long as it is an entity entitled to interconnect with the System. The Generator shall pay for the cost of providing such standard documents and certificates.

## **ARTICLE 15 INSURANCE AND ASSESSMENTS**

- 15.1 Generator Insurance.** Subject to Section 15.2, and without limiting any obligations or liabilities under this Agreement, Generator shall, at its expense, prior to construction of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades, provide and maintain in effect until termination of this Agreement, minimum insurance coverage through occurrence-based policies (in any combination of primary and excess layers) as specified in Sections 15.1.1 and 15.1.2. Transmission Owner retains the right to change the

amount of coverage specified in Sections 15.1.1 and 15.1.2, without consent of Generator, every ten (10) years during the term of this Agreement.

**15.1.1 Commercial General Liability.** If the generating capacity addition is equal to or exceeds 20MW, commercial general liability insurance, including contractual liability coverage, for liabilities assumed under this Agreement and personal injury coverage in the minimum amount of thirty million dollars (\$30,000,000) per occurrence for bodily injury and property damage. Depending on the nature of Generator's operations and Facility, Transmission Owner may require additional insurance coverage as determined by Transmission Owner in a commercially reasonable manner. Notwithstanding the foregoing, said minimum amount of commercial general liability insurance coverage shall not apply to capacity additions involving wind generation utilizing induction machines that are supplied with electricity from a single transmission line. Required amounts of commercial general liability insurance coverage for wind generation capacity additions of the foregoing type and for capacity additions of less than 20MW shall be determined by the Transmission Owner, in its sole judgment, on a case by case basis depending on the characteristics of the capacity addition and the characteristics of the interconnection. The policy shall be endorsed to include the Transmission Owner as an additional insured with a provision substantially in the form of the following:

The inclusion of more than one insured under this policy shall not operate to impair the rights of one insured against another insured and the coverages afforded by this policy shall apply as though separate policies had been issued to each insured. The inclusion of more than one insured shall not, however, operate to increase the limits of the carrier's liability. The Transmission Owner shall not, by reason of their inclusion under this policy, incur liability to the insurance carrier for payment of premium for this policy.

**15.1.2 Automobile Liability.** Comprehensive automobile liability insurance for coverage of owned, non-owned and hired vehicles, trailers or semi-trailers with a combined single limit of a minimum of two million dollars (\$2,000,000.00) per occurrence for bodily injury, including death, and property damage.

**15.2 Generator Self-Insurance.** Generator, may, upon terms and conditions satisfactory to Transmission Owner, self-insure all or part of the insurance required in this Article 15; provided, however, that: (i) Generator maintains a self-insurance program; (ii) Generator's senior secured debt is rated at investment grade or better by a rating company acceptable to the Transmission Owner; and (iii) all other provisions of this Article 15, including, but not limited to, waiver of subrogation, waiver of rights of recourse, and additional insured status, which provide or are intended to provide protection for the Transmission Owner under this Agreement, shall remain enforceable. Generator's election to self-insure shall not impair, limit, or in any manner result in a reduction of rights and/or benefits otherwise available to the Transmission Owner through formal insurance policies and endorsements as specified in the above paragraphs of this Article 15. All amounts of self-insurance, retentions and/or deductibles are the responsibility of and shall be borne by Generator.

**15.3 Transmission Owner Insurance.** Subject to Section 15.4, and without limiting any obligations or liabilities under this Agreement, the Transmission Owner shall, at its expense, provide and maintain in effect for the life of this Agreement, minimum insurance coverage (in any combination of primary and excess layers) as follows:

**15.3.1 Commercial General Liability.** Commercial general liability insurance, including contractual liability coverage for liabilities assumed under this Agreement, and personal injury coverage in the same amount as required from Generator pursuant to Section 15.1.1. The policy shall be endorsed to include Generator and its affiliated and associated companies as additional insureds with a provision substantially in the form of the following:

The inclusion of more than one insured under this policy shall not operate to impair the rights of one insured against another insured and the coverages afforded by this policy shall apply as though separate policies had been issued to each insured. The inclusion of more than one insured shall not, however, operate to increase the limits of the carrier's liability. Generator shall not, by reason of its inclusion under this policy, incur liability to the insurance carrier for payment of premium for this policy.

- 15.4 Transmission Owner Self-Insurance.** The Transmission Owner, at its option, may self-insure all or part of the insurance required in this Article 15; provided, however, that all other provisions of this Article 15, including, but not limited to, waiver of subrogation, waiver of rights of recourse, and additional insured status, which provide or are intended to provide protection for Generator and its affiliated and associated companies under this Agreement, shall remain enforceable. The Transmission Owner's election to self-insure shall not impair, limit, or in any manner result in a reduction of rights and/or benefits otherwise available to Generator and its affiliated and associated companies through formal insurance policies and endorsements as specified in the above paragraphs of this Article 15. All amounts of self-insurance, retentions and/or deductibles are the responsibility of and shall be borne by the Transmission Owner.
- 15.5 Notices and Certificates of Insurance.** All policies of insurance shall provide for thirty (30) days prior written notice of cancellation or material adverse change. Prior to the construction of Transmission Owner Interconnection Facilities and Interconnection System Upgrades, and annually thereafter during the term of this Agreement, certificates of insurance shall be furnished by each Party to the other Party, unless such Party is self-insured pursuant to Section 15.2 or 15.4.
- 15.6 Workers Compensation.** The Generator shall register with the Workers Compensation Board of Manitoba and shall at all times pay, or cause to be paid, any assessment or compensation required to be paid pursuant to *The Workers Compensation Act C.C.S.M. c.W200* and upon failure to do so, the Transmission Owner may pay such assessment or compensation to the Workers Compensation Board and may add the amount thereof from monies due or to become due and owing from the Generator. The Transmission Owner may, at any time during the performance of this Agreement, require a declaration from The Workers Compensation Board that such assessments or compensation have been paid in full.

## **ARTICLE 16 INDEMNITY**

- 16.1 General.** Subject to Section 16.5, each Party shall indemnify and hold harmless the other Party, and the other Party's respective officers, shareholders, stakeholders, managers, representatives, directors, agents and employees, and affiliated and associated companies, from and against any and all loss, liability, damage, cost or expense incurred by the other Party, including damage and liability for bodily injury to or death of persons, or damage to property of persons



(including reasonable legal fees and expenses, litigation costs, consultant fees, investigation fees and sums paid in settlements of claims and any such fees and expenses incurred in enforcing this indemnity or collecting any sums due hereunder) (collectively, "Loss") to the extent arising out of, in connection with or resulting from (i) the indemnifying Party's breach of any of the representations or warranties made in, or failure to perform any of its obligations under, this Agreement; or (ii) the negligence or willful misconduct of the indemnifying Party or its contractors and regardless whether arising under Applicable Laws and Regulations or otherwise; provided, however, that no Party shall have any indemnification obligations under this Section 16.1 with respect to any Loss to the extent the Loss results from the gross negligence or willful misconduct of the Party seeking indemnity.

**16.2 Notice and Defense.** Promptly after receipt by a person entitled to indemnity ("Indemnified Party") of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Section 16.1 may apply, the Indemnified Party shall notify the indemnifying Party of such fact, but any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay shall be materially prejudicial to the indemnifying Party. The indemnifying Party shall have the right to assume the defense thereof with counsel designated by such indemnifying Party and reasonable satisfaction to the Indemnified Party. The Indemnified Party shall be entitled, at its expense, to participate in any action, suit or proceeding, the defense of which has been assumed by the indemnifying Party. Notwithstanding the foregoing, the indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Party and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Party or there exists a conflict or adversity of interest between the Indemnified Party and the indemnifying Party, and in such event the indemnifying Party shall pay the reasonable expenses of the Indemnified Party in such defense, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Party, which shall not be unreasonably withheld or delayed.

**16.3 Indemnified Party.** If an Indemnified Party is entitled to indemnification under this Article 16 as a result of a claim by a third party, and the indemnifying Party fails to assume the defense of such claim, such Indemnified Party may at the expense of the indemnifying Party contest, settle, consent to the entry of any judgment with respect to, or pay in full, such claim.

- 16.4 Amount Owing.** If an indemnifying Party is obligated to indemnify and hold any Indemnified Party harmless under this Article 16, the amount owing to the Indemnified Party shall be the amount of such Indemnified Party's actual Loss, not of any insurance or other recovery.
- 16.5 Limitation on Liability and Damages.** **NOTWITHSTANDING SECTION 16.1, TRANSMISSION OWNER SHALL NOT BE LIABLE, WHETHER BASED ON CONTRACT, TORT, INDEMNIFICATION, WARRANTY, STRICT LIABILITY, EQUITY OR OTHERWISE, TO GENERATOR OR ANY THIRD PARTY FOR ANY DAMAGES WHATSOEVER, INCLUDING WITHOUT LIMITATION, DIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, SPECIAL, EXEMPLARY OR INDIRECT DAMAGES ARISING FROM ANY ACT OR OMISSION IN ANY WAY ASSOCIATED WITH TRANSMISSION OWNER'S OBLIGATIONS UNDER THIS AGREEMENT INCLUDING BUT NOT LIMITED TO ANY ACT OR OMISSION THAT RESULTS IN ANY INTERRUPTION, DEFICIENCY OR IMPERFECTION OF SERVICE, EXCEPT TO THE EXTENT TRANSMISSION OWNER IS FOUND LIABLE FOR GROSS NEGLIGENCE OR INTENTIONAL MISCONDUCT, IN WHICH CASE TRANSMISSION OWNER SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, PUNITIVE, SPECIAL, EXEMPLARY OR INDIRECT DAMAGES, SUCH AS ECONOMIC LOSS, LOSS OF BUSINESS OPPORTUNITY OR OTHER FINANCIAL LOSS, TRANSMISSION OWNER SHALL NOT BE LIABLE FOR DAMAGES ARISING OUT OF SERVICES PROVIDED UNDER THIS AGREEMENT, INCLUDING ANY ACT OR OMISSION THAT RESULTS IN AN INTERRUPTION, DEFICIENCY OR IMPERFECTION OF SERVICE, OCCURRING AS A RESULT OF CONDITIONS OR CIRCUMSTANCES RESULTING FROM ELECTRIC SYSTEM DESIGN COMMON TO THE NORTH AMERICAN ELECTRIC UTILITY INDUSTRY OR ELECTRIC SYSTEM OPERATION PRACTICES OR CONDITIONS COMMON TO THE NORTH AMERICAN ELECTRIC UTILITY INDUSTRY.**

**ARTICLE 17**  
**BREACH, CURE AND DEFAULT**

- 17.1 Events of Breach.** A Breach of this Agreement shall include the failure to comply with any term or condition of this Agreement, including but not limited to any Breach of a representation, warranty or covenant made in this Agreement.

- 17.2 Obligation to Report.** A Party shall notify the other Party when it becomes aware of its inability to comply with the provisions of this Agreement for a reason other than Force Majeure. The Parties agree to provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. However, nothing in this section, including any acknowledgement by a Party as to corrective actions to be taken, shall be construed as a waiver of such non-compliance. In the event of Force Majeure, a Party unable to comply with the provisions of this Agreement shall notify the other Parties in accordance with the provisions of Article 11.
- 17.3 Continued Operation.** In the event of a Breach or Default by a Party, the Parties shall continue to operate and maintain, as applicable, such DC power systems, protection and Metering Equipment, telemetering equipment, SCADA equipment, transformers, Secondary Systems, communications equipment, building facilities, software, documentation, structural components, and other facilities and appurtenances that are reasonably necessary for the Transmission Owner to operate and maintain the System, or for Generator to operate and maintain the Facility, in a safe and reliable manner until such time as this Agreement is terminated in accordance with Section 17.7.
- 17.4 Cure.** Upon the occurrence of an event of Breach, the Party not in Breach, when it becomes aware of the Breach, shall give written notice of the Breach to the Breaching Party and to any other person a Party to this Agreement identified in writing in advance to the other Party. Such notice shall set forth, in reasonable detail, the nature of the Breach, and if the Breach is curable, the steps necessary to cure such Breach, with a specified deadline. Such steps may include the development of a mitigation plan by the Breaching Party that is acceptable to the Party not in Breach. If such Breach is curable, after receiving written notice of the Breach hereunder, the Breaching Party shall have to cure such Breach within the time period specified in the notice or agreed upon mitigation plan unless such Breach is due to a failure to pay any amount when due in which case the cure period will be five (5) days. Notwithstanding the foregoing, this Section 17.4 shall not apply to a Generator's breach of its obligation pursuant to Section 13.2 to provide assurance of payment within seven (7) days of demand or to an incurable breach, in which case no cure period shall apply.
- 17.5 Default.** A Party shall be considered in Default: (a) subject to Section 24.10, in the event the Breaching Party either commits an incurable Breach or fails to cure a Breach within the applicable cure period specified in Section 17.4; (b) in the event that a Party (i) is adjudicated bankrupt; (ii) files a voluntary petition in

bankruptcy under any provision of any bankruptcy law or becomes subject to the filing of any bankruptcy or reorganization petition against it under any similar law; (iii) makes a general assignment for the benefit of its creditors; or (iv) has a receiver, trustee or liquidator appointed with respect to its assets; (c) in the event that the Party fails to provide assurance of payment in accordance with Section 13.2.

- 17.6 Right to Compel Performance.** Notwithstanding the foregoing, upon the occurrence of an event of Default, the non-Defaulting Party shall be entitled to (i) commence an action to require the Defaulting Party to remedy such Default and specifically perform its duties and obligations hereunder in accordance with the terms and conditions hereof, and (ii) exercise such other rights and remedies as it may have in equity or at law.
- 17.7 Right to Terminate.** A Party may terminate this Agreement upon the Default of the other Party in accordance with this Agreement. In the event of a Default, a non-Defaulting Party may terminate this Agreement only upon its giving a minimum of three (3) days written notice of termination to the other Party.
- 17.8 Acceleration.** Notwithstanding any other provision of this Agreement to the contrary, on Default of a Party all expenditures for which a Party is liable shall become immediately due and payable. On Default of Generator, all costs associated with operating and maintaining the Transmission Owner Interconnection Facilities and Interconnection System Upgrades over the lifetime of said facilities shall be accelerated and become immediately due and payable.

## **ARTICLE 18 TERMINATION**

- 18.1 Termination of Interconnection Service.** Subject to the provisions of this Article, Interconnection Service for the Facility shall terminate upon termination of this Agreement in accordance with Section 2.2.
- 18.2 Disposition of Facilities Upon Termination of Agreement.**
- 18.2.1 Transmission Owner Obligations.** Upon termination of this Agreement, unless otherwise agreed by the Generator in writing, Transmission Owner shall:

- (a) prior to the construction and installation of any portion of the Transmission Owner Interconnection Facilities and

Interconnection System Upgrades and to the extent possible, cancel any pending orders of, or return, such facilities to the extent that such orders or facilities are not required to provide Interconnection Service to a Subsequent Generator;

- (b) keep in place any portion of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades already constructed and installed, that are necessary to maintain Transmissions System reliability; and
- (c) perform such work as may be necessary to ensure the safety of persons and property and to preserve the integrity of the System (e.g., construction demobilization, wind-up work).

**18.2.2 Generator Obligations.** Upon billing by Transmission Owner, Generator shall reimburse Transmission Owner for any costs incurred by Transmission Owner in performance of the actions required or permitted by Section 18.2.1 and for any restudy or redesign costs associated therewith, that are necessary for the provision of Interconnection Service to a Subsequent Generator that has entered into an Interconnection and Operating Agreement with Transmission Owner on or before the date of the termination of this Agreement. The Transmission Owner shall use Reasonable Efforts to minimize costs and shall offset the amounts owed by any salvage value of facilities, if applicable. Generator shall pay these costs pursuant to Section 13.4 and 13.6 of this Agreement.

**18.2.3 Pre-construction or Installation.** Upon termination of this Agreement prior to the construction and installation of any portion of the Transmission Owner Interconnection Facilities or Interconnection System Upgrades, Transmission Owner may, at its option, retain any portion of such facilities not able to be cancelled or returned in accordance with Section 18.2.1(a), in which case Transmission Owner shall be responsible for all costs associated with procuring such facilities. To the extent that Generator has already paid Transmission Owner for any or all of such costs, Transmission Owner shall refund such amounts to Generator. If Transmission Owner elects not to retain any portion of such facilities, Transmission Owner shall convey and make available to Generator such facilities as soon as practicable. Generator shall be responsible for payment for such facilities in accordance with Article 13.

- 18.3 Destruction or Return of Confidential Information.** Upon termination of this Agreement for any reason, a Party shall, within ten (10) days after receipt of a written request from the other Party, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure and deletion certified in writing to the other Party) or return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Party.
- 18.4 Survival of Rights.** Termination of this Agreement shall not relieve any Party of any of its liabilities and obligations arising hereunder prior to the date termination becomes effective, and each Party may take whatever judicial or administrative actions as appear necessary or desirable to enforce its rights hereunder. Section 10.6, Section 18.3 and Article 20 shall survive termination of this Agreement.

## **ARTICLE 19 SUBCONTRACTORS**

- 19.1 Subcontractors.** Nothing in this Agreement shall prevent a Party from utilizing the services of subcontractors, as it deems appropriate, to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.
- 19.1.1 Responsibility of Principal.** The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. In accordance with the provisions of this Agreement, each Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor it hires as if no subcontract had been made. Any applicable obligation imposed by this Agreement upon a Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.
- 19.1.2 No Third-Party Beneficiary.** Except as may be specifically set forth to the contrary herein, no subcontractor or any other party is intended to be, nor will it be deemed to be, a third-party beneficiary of this Agreement.
- 19.1.3 No Limitation by Insurance.** The obligations under this Article 19 shall not be limited in any way by any limitation of subcontractor's insurance.

## ARTICLE 20 CONFIDENTIALITY

- 20.1 Term.** During the term of this Agreement, and for a period of three (3) years after the expiration or termination of this Agreement, except as otherwise provided in this Article 20, each Party shall hold in confidence and shall not disclose to any person Confidential Information.
- 20.2 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate (i) is generally available to the public other than as a result of a disclosure by the receiving Party; (ii) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (iii) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (iv) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or breach of this Agreement; or (v) is required, in accordance with Section 20.7 of this Agreement, to be disclosed to any Governmental Authority as long as such information is made available to the public, is otherwise required to be disclosed by Applicable Laws and Regulations or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this Agreement. Information designated as Confidential Information shall no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.
- 20.3 Release of Confidential Information.** No Party shall release or disclose Confidential Information to any other person, except: (i) on a need-to-know basis, to its employees, contractors, or consultants or to parties who may be or considering providing financing to or equity participation with Generator in connection with this Agreement, provided such person has first been advised of the confidentiality provisions of this Article 20 and has agreed to comply with such provisions; and (ii) as necessary for the Party to fulfill its obligations as a transmission provider or Control Area operator, such as the release of information to a NERC reliability coordinator or Applicable Reliability Organization. Notwithstanding the foregoing, a Party providing Confidential Information to any person receiving the initial Confidential Information shall remain primarily responsible for any release of Confidential Information in contravention of this Article 20.
- 20.4 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to another Party. The disclosure by each

Party to another Party of Confidential Information shall not be deemed a waiver by either Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

- 20.5 No Warranties.** By providing Confidential Information, no Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to another Party nor to enter into any further agreements or proceed with any other relationship or joint venture.
- 20.6 Use of Confidential Information.** Each Party may use Confidential Information solely to fulfill its obligations to other Parties under this Agreement or to comply with Applicable Laws and Regulations.
- 20.7 Order of Disclosure.** If a Governmental Authority with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, demand for discovery, oral deposition, interrogatories, requests for production of documents, data request, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt prior written notice to the extent possible of such request(s) or requirement(s) so that the other Party may seek an injunction or other protection, or waive compliance with the terms of this Agreement. Notwithstanding the absence of an order or other protection, or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party shall use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.
- 20.8 Remedies.** The Parties expressly agree that monetary damages would be inadequate to compensate a Party for another Party's Breach of its obligations under this Article 20. Each Party accordingly expressly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party breaches or threatens to breach its obligations under this Article 20, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed to be an exclusive remedy for the breach of this Article 20, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for



indirect, incidental or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 20.

## **ARTICLE 21 INFORMATION ACCESS AND AUDIT RIGHTS**

- 21.1 Information Access.** Each Party shall make available to the other Party information necessary to verify the costs incurred by the other Party for which the requesting Party is responsible under this Agreement and to carry out obligations and responsibilities under this Agreement. The Parties shall not use such information for purposes other than the purposes set forth in this Section 21.1 and to enforce their rights under this Agreement.
- 21.2 Audit Rights.** Subject to the requirements of confidentiality under Article 20, a Party at its expense shall have the right, during normal business hours, and upon prior reasonable notice to another Party, to audit each other's accounts and records pertaining to a Party's performance and/or satisfaction of obligations arising under this Agreement during the twenty-four (24) month period prior to commencement of the audit, other than an audit relating to the performance of the Transmission Owner under Section 9.3, which shall be subject to the audit provisions of such Section. Any audit authorized by this Section 21.2 shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to obligations under this Agreement.

## **ARTICLE 22 DISPUTES**

- 22.1 Submission.** Any claim or dispute, which a Party may have against the other Party, arising out of this Agreement shall be submitted for resolution in accordance with the dispute resolution provisions of the Manitoba Hydro Open Access Interconnection Tariff as published and in effect at the time of the claim or dispute.
- 22.2 Equitable Remedies.** Subject to Section 22.3, nothing in this Article shall prevent either Party from pursuing or seeking any equitable remedy available to it under Applicable Laws and Regulations, at any time.

- 22.3 Attornment to Jurisdiction.** The Parties agree to the exclusive jurisdiction of the Manitoba Court of Queen’s Bench and the Manitoba Court of Appeal for the resolution of disputes arising from this Agreement which are not resolved by arbitration.

**ARTICLE 23  
NOTICES**

- 23.1 General.** Any notice, demand or request required or permitted to be given by a Party to the other and any instrument required or permitted to be tendered or delivered by a Party in writing to the other may be so given, tendered or delivered, as the case may be, by depositing the same with Canada Post with postage prepaid, for transmission by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out below:

To Transmission Owner:

[Insert name and/or title of person]  
Manitoba Hydro

P..O. Box

Winnipeg, Manitoba R3C 2P4

To Generator:

[Insert name and/or title of person]  
[Insert name of Generator]  
[Insert street or P. O. Box address]  
[Insert city, province and postal code]

- 23.2 Billings and Payments.** Billings and payments shall be sent to the addresses shown in Section 23.1.

- 23.3 Alternative Forms of Notice.** Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out below:

To Transmission Owner:

Voice telephone – [Insert number]  
Facsimile telephone – [Insert number]  
Email address – [Insert address]

To Generator:

Voice telephone – [Insert number]  
Facsimile telephone – [Insert number]  
Email address – [Insert address]

**ARTICLE 24  
MISCELLANEOUS**

- 24.1 Waiver.** Any waiver at any time by a Party of its rights with respect to a Default under this Agreement, or with respect to any other matters arising in connection with this Agreement, shall not be deemed a waiver or continuing waiver with respect to any subsequent Default or other matter.
- 24.2 Governing Law.** The validity, interpretation and performance of this Agreement and each of its provisions shall be governed by the laws of the Province of Manitoba without regard to the conflicts of law provisions.
- 24.3 Headings Not to Affect Meaning.** The descriptive headings of the various Sections and Articles of this Agreement have been inserted for convenience of reference only and shall in no way modify or restrict any of the terms and provisions hereof.
- 24.4 Amendments.** Subject to Section 5.7.2, this Agreement may be amended by and only by a written instrument duly executed by the Parties. Upon satisfaction of all Applicable Laws and Regulations, an amendment to this Agreement shall become effective and a part of this Agreement.
- 24.5 Entire Agreement.** This Agreement constitutes the entire agreement among the Parties hereto with reference to the subject matter hereof and supercedes all prior oral and written communications pertaining hereto, except as specifically incorporated herein.

- 24.6 Counterparts.** This Agreement may be executed in any number of counterparts, and each executed counterpart shall have the same force and effect as an original instrument.
- 24.7 Binding Effect.** This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and assigns of the Parties hereto.
- 24.8 Conflicts.** In the event of a conflict between the body of this Agreement and any attachment, appendix or exhibit hereto, the terms and provisions of the body of this Agreement shall prevail and be deemed to be the final intent of the Parties.
- 24.9 Regulatory Requirements.** Each Party's obligations under this Agreement shall be subject to its receipt and the continued effectiveness of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the receiving Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities. Each Party shall in good faith seek such approvals as soon as is reasonably practicable.
- 24.10 Material Adverse Change.** In the event of a material change in law or regulation that adversely affects, or may reasonably be expected to adversely affect a Party's rights and/or obligations under this Agreement, the Parties shall negotiate in good faith any amendments to this Agreement necessary to adapt the terms of this Agreement to such change in law or regulation. If, within sixty (60) days after the occurrence of any event described in this Section 24.10, the Parties are unable to reach agreement as to any necessary amendments, the Parties may proceed to terminate this Agreement in accordance with paragraph (i) or (v) of Section 2.2.
- 24.11 Reciprocity.** A Generator receiving Interconnection Service under this Agreement agrees to provide comparable Interconnection Service that it is capable of providing to Transmission Owner on similar terms and conditions with respect to facilities used for the transmission of electric energy owned, controlled or operated by the Generator and facilities used for the transmission of electric energy owned, controlled or operated by the Generator's corporate affiliates. A Generator that is a member of a power pool or regional transmission group also agrees to provide comparable Interconnection Service to the members of such power pool and regional transmission group on similar terms and conditions over facilities used for the transmission of electric energy owned, controlled or operated by the Generator and over facilities used for the transmission of electric energy owned, controlled or operated by the Generator's corporate affiliates. The requirements of this Section may be waived by Transmission Owner.

**24.12 Currency.** All monetary amounts specified in the Agreement are stated in lawful money of Canada, unless specified otherwise. Unless otherwise agreed, monetary transactions, accounting and cost calculations between the Parties shall be determined and stated in lawful money of Canada. If required for any such monetary transactions, accounting or cost calculation, the rate to be used to convert from the currency of the United States of America to that of Canada for each day shall be the Bank of Canada noon spot exchange rate as published by the Royal Bank of Canada, Winnipeg, Manitoba, Canada, or the last published rate if not published for such day. If any monetary transaction is for a period of time exceeding one day, the weighted average of such noon spot exchange rates for each day in the respective period of time shall be used. The weighting shall be based in proportion to the dollar value of each day's transaction.

## **ARTICLE 25 REPRESENTATIONS AND WARRANTIES**

**25.1 General.** Each Party hereby represents, warrants and covenants as follows with these representations, warranties, and covenants effective as to the Party during the full time this Agreement is effective:

**25.1.1 Good Standing.** Such Party is duly organized or formed, as applicable, validly existing and is in good standing under the laws of its jurisdiction as stated in the preamble of this Agreement.

**25.1.2 Authority.** Such Party has the right, power and authority to enter into this Agreement, to become a party hereto and to perform its obligations hereunder.

**25.1.3 No Conflict.** The execution, delivery and performance of this Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of either Party, or any judgment, license, permit or order or material agreement or instrument applicable to or binding upon either Party or any of its assets.

**25.1.4 Consent and Approval.** That it has sought or obtained, or, in accordance with this Agreement will seek or obtain, each consent, approval, authorization or order of, or acceptance of a filing with, or notice to, any Governmental Authority with jurisdiction concerning this

Agreement, in connection with the execution, delivery and performance of this Agreement.

**25.1.5 Solvency.** That each Party is financially solvent.

**IN WITNESS WHEREOF**, the Parties hereto have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

**[Insert name of Generator]**

By: \_\_\_\_\_

Name (typed or printed):

Title:

**Manitoba Hydro**

By: \_\_\_\_\_

Name (typed or printed):

Title:

**APPENDIX A-1**  
**POINT(S) OF INTERCONNECTION, TRANSMISSION OWNER**  
**INTERCONNECTION FACILITIES, INTERCONNECTION SYSTEM UPGRADES,**  
**COST ESTIMATES AND RESPONSIBILITY, TRANSMISSION CREDITS,**  
**CONSTRUCTION SCHEDULE, AND MONTHLY PAYMENT SCHEDULE**

This Appendix A-1 is a part of the Interconnection and Operating Agreement between Generator and Transmission Owner.

**1.1 (a) Point(s) of Interconnection.** The Point(s) of Interconnection shall be at the point where \_\_\_\_\_ . See Drawing No. \_\_\_\_\_ dated \_\_\_\_\_, which drawing is attached hereto and made a part hereof. If not located at the Point(s) of Interconnection, the metering point(s) shall be located at \_\_\_\_\_.

**(b) Type of Interconnection Service.** Generator has requested Transmission Owner to provide \_\_\_\_\_ (Energy Resource Interconnection Service/Network Resource Interconnection Service)

**1.2(a) Transmission Owner Interconnection Facilities (including metering equipment) to be constructed by the Transmission Owner.** The Transmission Owner shall construct the following Transmission Owner Interconnection Facilities that have been identified by Transmission Owner as necessary to provide the requested Interconnection Service.

**1.2(b) Interconnection System Upgrades to be installed by the Transmission Owner.** The Transmission Owner shall install the following Interconnection System Upgrades that have been identified by Transmission Owner as necessary to provide the requested Interconnection Service.

**1.3** Generator acknowledges that Transmission Owner's determination of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades required in order to provide the requested Interconnection Service is dependent on: (1) assumptions made with respect to higher queued Interconnection Requests if the Generator's Interconnection Request has been processed out of queue order; and (2) data supplied by Generator for its Interconnection Studies. Generator further acknowledges that if study assumptions change as higher queued Interconnection Requests are processed or if Generator supplies materially different data pursuant to Section 12.3 of this Agreement, the full level of Interconnection Service requested may not be able to be provided by Transmission Owner using the facilities identified in Section 2.1 of this Appendix.

- 1.4 Cost Estimates and Responsibility.** Generator and the Transmission Owner hereby acknowledge and agree that the cost indicated below is only an estimate and that Generator hereby agrees to and shall reimburse the Transmission Owner for all actual costs associated with the construction and installation by the Transmission Owner of the Transmission Owner Interconnection Facilities and the Interconnection System Upgrades.
- 1.4.1** The cost for the Transmission Owner Interconnection Facilities to be constructed by the Transmission Owner is estimated at \$ \_\_\_\_\_.
- 1.4.2** The cost for the Interconnection System Upgrades is estimated at \$ \_\_\_\_\_.
- 1.4.3** The total cost for the Transmission Owner Interconnection Facilities and Interconnection System Upgrades is estimated at \$ \_\_\_\_\_.
- 1.4.4** Generator's liability for reimbursement of Transmission Owner for taxes, grants-in-lieu of taxes, interest and/or penalties under Section 13.7 is estimated at \$ \_\_\_\_\_. This amount is not included in the total cost for Transmission Owner Interconnection Facilities and Interconnection System Upgrades stated in Section 1.5.3 of this Appendix A-1.
- 1.4.5** Generator shall comply with the payment schedule set forth in Attachment to this Appendix.
- 1.5 First Equipment Order.** For the purposes of Section 13.1 of this Agreement, the first date for ordering of equipment is \_\_\_\_\_.
- 1.6 Transmission Credits.** The portion of the Interconnection System Upgrades that are subject to the transmission service credits described in Section 13.3.4 of this Agreement is estimated at \$ \_\_\_\_\_.
- 1.7 Refund.** Generator may be eligible for refund of the following advanced Interconnection System Upgrades in accordance with Section 13.3.5 of this Agreement: \_\_\_\_\_.
- 1.8 Construction Schedule.** Construction of the Transmission Owner Interconnection Facilities and Interconnection System Upgrades is scheduled as per Attachment \_\_\_\_.
- 1.9 Ancillary Services.**
- 1.9.1 Services Required**



**1.9.2 Reactive Power Capability**

**1.10 Must Run Units**

**1.11 Credit Assurance Requirements**

- a) Prior to Commercial Operation Date
- b) After Commercial Operation Date

**1.12 Insurance Requirements**

**APPENDIX A-2  
MILESTONES**

Issued by: L. Midford  
Issued on: December 12, 2003  
Revised: March 16, 2012

Effective: April 16, 2012

**APPENDIX B  
FACILITY AND GENERATOR INTERCONNECTION FACILITIES**

This Appendix B is a part of the Interconnection and Operating Agreement between Generator and Transmission Owner.

**1.1 Facility.** Generator intends to own and operate a \_\_\_\_\_ MW electric generating facility located in \_\_\_\_\_, and more specifically described as follows: **[Insert description of Facility]**

**1.2 Expected completion date of Facility:** \_\_\_\_\_.

**1.3 Generator Interconnection Facilities to be constructed by Generator.** Generator shall construct \_\_\_\_\_.

**1.4 Expected completion date of Generator Interconnection Facilities:** \_\_\_\_\_.

**1.5 Permits, Licenses and Authorizations.** Generator requires the following material permits, licenses and authorizations for the construction and operation of the Facility and Generator Interconnection Facilities:

**APPENDIX C - COMMERCIAL OPERATION DATE**

This Appendix C is a part of the Interconnection and Operating Agreement between Generator and Transmission Owner.

**[Date]**

**[Generator]**

**[Address]**

**[Address]**

**[Address]**

**Re: [Facility]**

**Dear \_\_\_\_\_**

**On [Date], the Transmission Owner \_\_\_\_\_, and \_\_\_\_\_ (the "Generator") completed to their mutual satisfaction all work and testing on the [Facility unit(s)] described as \_\_\_\_\_ and associated Interconnection Facilities, Interconnection System Upgrades and related equipment required to interconnect the Facility unit(s) with the Transmission Owner's System and have energized the Facility unit(s) in parallel operation with the Transmission Owner's System. This letter confirms that the Generator may commence Commercial Operation of the specified Facility/unit(s) and associated Interconnection Facilities effective as of [Date plus one day].**

**Thank you.**

**[Signature]**

**[Transmission Owner Representative]**

## **APPENDIX D - OPERATING REQUIREMENTS**

This Appendix D is a part of the Interconnection and Operating Agreement between Generator and Transmission Owner.

**APPENDIX E – RATES, TERMS & CONDITIONS FOR SUPPLY  
OF ANCILLARY SERVICES BY GENERATOR**

Issued by: L. Midford  
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