

# Manitoba Hydro Distributed Resource Interconnection Procedures

## 1 Introduction

This document sets out the procedures and the documents required for interconnecting proposed network resource or paralleling generating facilities up to and including 10 MW in capacity to the Manitoba Hydro System at a voltage not to exceed 25kV (the “Interconnection Procedures”). The Interconnection Procedures include the following Appendixes and Attachments:

- Appendix 1 Glossary of Terms
- Appendix 2 Distributed Resources Interconnection Process Chart
- Attachment 1 Interconnection Request
- Attachment 2 Engineering Study Agreement
- Attachment 3 Type I DR Interconnection and Operating Agreement
- Attachment 4 Type II DR 100 kW or less Interconnection and Operating Agreement
- Attachment 5 Type II, III and Type IV DR Interconnection and Operating Agreement
- Attachment 6 DR Interconnection 10 kW or less Registration Form

## 2 Inquiries

Inquiries may be made to:

Bob Graham  
Energy Services Advisor,  
Customer Services Representative  
Manitoba Hydro  
235-10th St.  
Brandon, MB  
R7A 7J8  
Phone (204) 727-9264  
Fax (204) 727-7660  
Email: rgraham@hydro.mb.ca

## 3 Definitions

Capitalized terms used in the Interconnection Procedures (including the Attachments) shall have the meanings specified in the Glossary of Terms in Appendix 1 or in the body of this document.

## 4 Interconnection Process

Following the initial contact by an individual or entity seeking to interconnect a generating facility to the Manitoba Hydro System, (the “Distributed Resource Owner” or “DR Owner”) a Manitoba Hydro customer service representative (the “Representative”) will be designated to work with the DR Owner throughout the interconnection process. The Representative is the primary point of contact for Manitoba Hydro and will coordinate all communications and correspondence between the DR Owner and Manitoba Hydro.

For DR Interconnections 10 kW or less the generator/inverter assembly shall be CSA/ULC approved, electrically inspected and registered with Manitoba Hydro using the form set out in Attachment 6.

For all other interconnections by a DR Owner, there are four stages:

- Stage 1 - Exploratory
- Stage 2 - Preliminary Estimates
- Stage 3 – Interconnection Study
- Stage 4 – Agreement

Appendix 2 describes the interconnection process in the form of a chart.

### 4.1 Stage 1 - Exploratory

The DR Owner contacts Manitoba Hydro to discuss a proposal for interconnection with the System. The Representative will review the proposal and arrange exploratory meetings with the DR Owner. The scope of the exploratory meetings shall include the following:

- Point of Interconnection Information
  - Location of generator
  - Generator capacity, type, energy output profile
  - Proposed one line diagram of generator interconnection
  - Prime mover of generation (wind, solar, biomass, diesel etc,)
- Primary Intent of DR Facility
  - Load displacement
  - Export to Manitoba Hydro System
- Interconnection Process
  - DR Owner technical requirements
  - Electrical permit and inspection
  - Interconnection Request
  - Interconnection & Operating Agreement
- Power Purchase Process (if any)
  - Power Purchase Agreement

- Terms of payment
- Compensation during pre-commercial testing
- Metering

Distributed Resources fall into one of the following categories:

1. Type I DR Interconnections – An interconnection to the Manitoba Hydro System utilizing a CSA/UL approved momentary transition soft load transfer switch. The typical use for a Type I DR Interconnection is to momentarily connect/test a standby generator unit. The Type I DR Interconnection is not permitted to sell power to Manitoba Hydro.
2. Type II DR Interconnections – An interconnection operating in parallel with Manitoba Hydro. The Type II DR Interconnection is not permitted to sell power to Manitoba Hydro.
3. Type III DR Interconnections – An interconnection operating in parallel with Manitoba Hydro. The DR Owner of a Type III Interconnection displaces its own load and may contract to sell the excess power it produces to Manitoba Hydro.
4. Type IV DR Interconnections – An interconnection undertaken by the DR Owner solely for purposes of the sale of the power it produces to Manitoba Hydro.

The type of interconnection determines the process the DR Owner must follow, and the costs which the DR Owner will be obliged to pay, in order to interconnect. As part of the exploratory stage, Manitoba Hydro shall, in its sole discretion, determine the category of the DR Owner's proposed interconnection.

#### **4.2 Stage 2 – Preliminary Estimates**

Once the DR Owner and Manitoba Hydro have determined the scope of the proposed interconnection, and Manitoba Hydro has determined which category of interconnection, the DR Owner will advise Manitoba Hydro of its decision to proceed. If the DR Owner determines to proceed, the DR Owner shall provide a written request to Manitoba Hydro for preliminary estimates of the energy purchase price (if any) and the construction costs to be incurred to interconnect. The written request from the DR Owner shall include the following information:

- Generator location
- Single line diagram ('SLD')
- Generator size, type, voltage level
- Primary intent of generator load displacement: that is, parallel operation, export to grid
- Energy output profile of generator

Manitoba Hydro will provide preliminary estimates of the energy purchase price (if any) and the construction costs to connect to the DR Owner's generator within 30 Days of receiving the written request. Preliminary estimate shall mean an estimate of energy costs within 25% of actual energy costs and construction costs within 25% of actual construction costs.

A change in the SLD once submitted to Manitoba Hydro will be deemed to be a new interconnection inquiry and may be returned to Stage 1 for further analysis by Manitoba Hydro.

### **4.3 Stage 3 – Interconnection Study**

Once the DR owner has received the preliminary estimates and has determined to proceed with the proposed interconnection, the DR Owner shall submit an Interconnection Request in the form prescribed in Attachment 1. The receipt by Manitoba Hydro of a completed Interconnection Request commences the Interconnection Study stage which is comprised of two parts: (1) the engineering study component; and (2) the energy purchase price component.

#### **4.3.1 Engineering Study Component**

The Engineering Study process is as follows:

- a) Manitoba Hydro will determine within 15 Days of receipt of a completed Interconnection Request whether an Engineering Study is required. If no Engineering Study is required, the DR Owner interconnection shall proceed directly to Stage 4.
- b) If an Engineering Study is required, Manitoba Hydro will forward an Engineering Study agreement in the form attached as Attachment 2 (the "Engineering Study Agreement") to the DR Owner within 15 Days of receiving a completed Interconnection Request.
- c) DR Owner shall execute and deliver the Engineering Study Agreement within 15 Days of receipt of same. Manitoba Hydro may permit the DR Owner to delay execution of the Engineering Study Agreement for up to 60 Days provided it does not materially affect the Interconnection Request. If Manitoba Hydro determines, in its sole discretion, that the Interconnection Request is materially affected by the delay, the Interconnection Request shall be rejected.
- d) Once an executed Engineering Study Agreement and study costs/deposit (as detailed below) have been received by Manitoba Hydro, Manitoba Hydro shall, within 30 Days, complete and deliver the Engineering Study and cost estimates for the interconnection to the DR Owner. The time required for completing and delivering the Engineering Study and cost estimates may be extended by Manitoba Hydro if the nature of the particular Interconnection Request is such that additional time is required to complete same.

The Engineering Study costs to be paid by the DR Owner to Manitoba Hydro in accordance with the terms hereof are as follows:

- Type I DR Interconnection – No Cost
- Type II DR Interconnections less than 100 kW – No Cost
- Type II DR Interconnection - \$500
- Type III DR Interconnection – DR Owner places a deposit of \$1000 for the Engineering Study costs and is responsible for the actual Engineering Study costs
- Type IV DR Interconnection - DR Owner places a deposit of \$5000 for the Engineering Study costs and is responsible for actual Engineering Study costs

#### **4.3.2 Energy Purchase Price Component**

Manitoba Hydro will review the cost of integrating the DR Owner’s generator output into the System. The review will include, but not be limited to, factors such as environmental premiums, government subsidies and shaping and firming the generator output into a 5 x 16 product (On peak hours Monday through Friday from 6AM to 10 PM, 5 x 16). Manitoba Hydro will provide a revised estimate for the energy purchase (if any) to the DR Owner along with the Engineering Study.

#### **4.4 Stage 4 – Agreement**

The DR Owner shall, within 15 Days of receipt of the Engineering Study and cost estimates for the interconnection as contemplated by Stage 3, advise Manitoba Hydro in writing that it intends to proceed to Stage 4 (the “Agreement Stage”).

Manitoba Hydro may permit the DR Owner to delay proceeding to the Agreement Stage for up to 60 days following receipt by the DR Owner of the Engineering Study and cost estimates for the interconnection provided the delay does not materially affect the Interconnection Request. If Manitoba Hydro determines, in its sole discretion, that the Interconnection Request is materially affected by the delay, the Interconnection Request shall be rejected. If the DR Owner subsequently wishes to proceed with the interconnection, it must return to Stage 1 of these Interconnection Procedures.

Within 15 days of written notification by the DR Owner that it intends to proceed, Manitoba Hydro will forward the following agreements to the DR Owner: (1) a Power Purchase Agreement for the energy (if required); and (2) an Interconnection and Operating Agreement in the form of either Attachment 3, Attachment 4 or Attachment 5 depending on the category of the proposed interconnection (the “Agreements”).

The Interconnection and Operating Agreement details, among other things, the construction responsibilities of the both the DR owner and Manitoba Hydro, if any, obligations related to operating and maintaining the Interconnection Facilities and the generating facility, insurance requirements, creditworthiness requirements and delineates the rights of the parties on termination of the interconnection. In terms of

cost responsibility, the DR Owner is obligated to pay for the actual cost of constructing all of the facilities as well as any other costs associated with accommodating the interconnection.

Upon receipt of the Agreements the DR Owner shall have 30 Days to execute the Power Purchase Agreement (if required) and the Interconnection & Operating Agreement and deliver same to the Representative.

## **5 Adherence to Timelines**

If Manitoba Hydro is unable to complete the required Engineering Study or agreements within the time periods outlined above, Manitoba Hydro shall notify the DR Owner and provide an revised estimated completion date along with an explanation as to why additional time is required.

The DR Owner may request a reasonable extension of any deadline set forth in these Interconnection Procedures. A reasonable extension shall be granted if in the judgment of Manitoba Hydro the extension does not cause any additional burden/costs to Manitoba Hydro. Any request for extension shall be made in writing to the Representative.

## **Appendix 1 - Glossary of Terms**

All references in this Glossary of Terms to “this Agreement” or “the Agreement” shall be to the Type III and Type IV DR Interconnection and Operating Agreement

“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.

“Breach” shall mean, subject to Section 11.2 of the Agreement, 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 of the Agreement.

“Breaching Party” shall mean a Party that is in Breach of this Agreement.

“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.

“Day” shall mean one business day under the laws of the province of Manitoba.

“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 of the Agreement.

“DR” shall mean a distributed resource with proposed generating facilities no larger than 10 MW in capacity interconnected or intending to interconnect to the System at a voltage of 25kV and below.

“Effective Date” shall mean the date on which this Agreement becomes effective in accordance with Section 2.1 of the Agreement.

“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 Manitoba Hydro 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. 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.

“Engineering Study” shall mean the study required pursuant to Section 4.3.1 of the Manitoba Hydro Distributed Resource Interconnection Procedures.

“Facility” shall mean Generator's electric generating facility identified, in the case of Type I DR or Type II DR, in the Interconnection Request, and in the case of Type II DR or Type IV DR, in the “as built” drawings provided to Manitoba Hydro in accordance with Section 4.2 of the Agreement and in Appendix B of the Agreement, but shall not include Generator Interconnection Facilities.

“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.

“Generator” shall mean the DR Owner that signs an Interconnection and Operating Agreement.

“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 of the Agreement, including any modifications, additions, or upgrades made to such facilities and equipment.

“Good Utility Practice” shall have the same meaning as assigned to such term in the Manitoba Hydro Open Access Interconnection Tariff.

“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.

“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

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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.

“Interconnection and Operating Agreement” shall mean the agreement entered into between the Generator and Manitoba Hydro for the purpose of interconnecting the Facility with the System and to define the continuing responsibilities of the parties with respect thereto.

“Interconnection Facilities” shall mean the facilities and equipment that are necessary to physically and electrically interconnect the Facility to the System, consisting of the Manitoba Hydro Interconnection Facilities and the Generator Interconnection Facilities identified in Appendices A and B of the Agreement.

“Interconnection Request” shall mean the information and other requirements prescribed by Attachment 1 of the Manitoba Hydro Distributed Resource Interconnection Procedure.

“Interconnection Requirements” shall mean Manitoba Hydro’s Transmission System Interconnection Requirements as published and revised from time to time or, with respect to connections to Manitoba Hydro’s distribution system at 25 kV and below, the Manitoba Hydro’s Interconnection Guidelines for Connecting Distributed Resources to the Manitoba Hydro Distribution System as published and revised from time to time.

“Interconnection Service” shall mean the services provided by Manitoba Hydro to interconnect the Facility with the System pursuant to the terms of the Manitoba Hydro Distributed Resource Interconnection Procedures. 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.

“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 load and shall not include Manitoba Hydro Interconnection Facilities. Interconnection System Upgrades are identified in Appendix A to the Agreement and are owned by Manitoba Hydro.

“Manitoba Hydro Interconnection Facilities” shall mean all facilities and equipment owned and controlled, operated and maintained by Manitoba Hydro on Manitoba Hydro’s side of the Point of Interconnection as identified in Appendix A, 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. Manitoba Hydro Interconnection Facilities do not include Interconnection System Upgrades, which are separately identified in Appendix A to the Agreement.

“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.

“Metering Equipment” shall mean all metering equipment installed at the metering points designated by mutual agreement between Manitoba Hydro and the Generator.

“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.

“Operation Date” shall mean the day commencing at 00:01 hours on the day following the day during which all necessary Interconnection Facilities, any necessary Interconnection System Upgrades, and the Facility have been completed as required by this Agreement and energized in parallel operation with the System as confirmed in a writing substantially in the form shown in Attachment 6 of the Agreement.

“Power Purchase Agreement” shall mean the agreement between the Type III DR or the Type IV DR, as the case may be, and Manitoba Hydro for the purchase by Manitoba Hydro of energy from the Type III DR or the Type IV DR.

“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.

“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.

“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.

“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.

“Subsequent Generator” shall mean any person or persons, other than Generator, that enters into an Interconnection and Operating Agreement with Manitoba Hydro on or after the date of this Agreement.

“Switching and Tagging Rules” shall mean the Manitoba Hydro Corporate Safety and Occupational Health Rules as they may be amended from time to time.

“System” shall mean the transmission, sub-transmission and distribution facilities owned and operated by Manitoba Hydro.

“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.

Type I DR shall mean an interconnection utilizing an CSA/UL approved momentary transition soft load transfer switch typical use is to momentarily connect/test a standby generator unit. Type I DR is not permitted to sell power to Manitoba Hydro.

Type II DR shall mean an interconnection operating in parallel with Manitoba Hydro. Type II DR is not permitted to sell power to Manitoba Hydro.

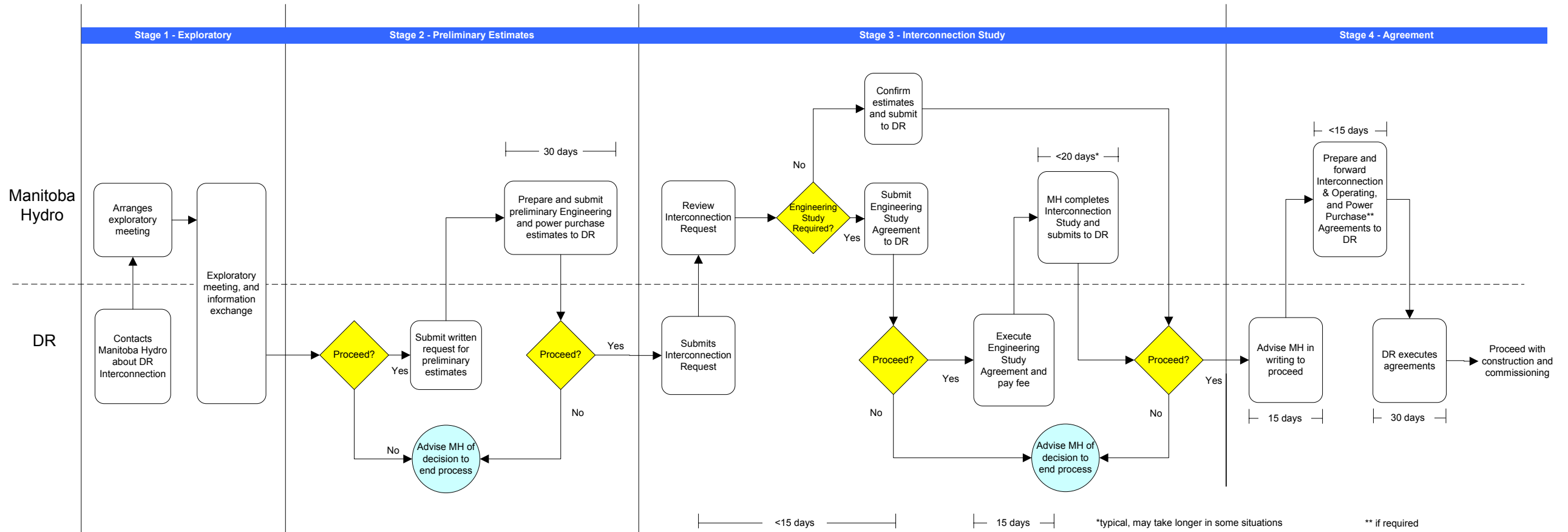
Type III DR shall mean an interconnection operating in parallel with Manitoba Hydro. Type III DR displaces its own load and, when applicable, contracts to sell the excess power it produces to Manitoba Hydro.

Type IV DR shall mean a DR interconnection solely for purpose of selling power to Manitoba Hydro.

“Transmission Service” shall mean the delivery of electrical energy over the Transmission System pursuant to the terms and conditions of the Manitoba Hydro OATT.

“Transmission System” shall mean the facilities controlled or operated by Manitoba Hydro that are used to provide Transmission Service under the Manitoba Hydro OATT.

## Appendix 2 - Distributed Resource Interconnection Process



**ATTACHMENT 1 - DISTRIBUTED RESOURCE  
INTERCONNECTION REQUEST**

1. The undersigned DR Owner submits this Interconnection Request to install and operate a DR generating facility interconnected with the Manitoba Hydro Distribution System.

2. DR Contact Information

|                                |             |
|--------------------------------|-------------|
| DR:                            |             |
| Representative:                | Title:      |
| Street Address:                |             |
| City:                          |             |
| Email:                         |             |
| Phone Number:                  | Fax Number: |
| Emergency Contact:             |             |
| Alternate Emergency Contact:   |             |
| Manitoba Hydro Account Number: |             |

3. Installing Electrical Contractor Information

|                 |             |
|-----------------|-------------|
| Contractor:     |             |
| Representative: | Title:      |
| Street Address: |             |
| City:           |             |
| Email:          |             |
| Phone Number:   | Fax Number: |

4. Planned-in-service date by month and year of the new DR facility \_\_\_\\_\_\_\\_\_\_.

5. This Interconnection Request shall be submitted to:

Bob Graham  
 Energy Services Advisor, Major Accounts  
 Manitoba Hydro  
 235-10th St.  
 Brandon, MB  
 R7A 7J8  
 Phone (204) 727-9264  
 Fax (204) 727-7660  
 Email: rgraham@hydro.mb.ca

6. Generating Facility / Inverter Information

|  |   |                                    |
|--|---|------------------------------------|
| Manufacturer:  |   |                                    |
| Model No:  | Version No:                                   | Serial No:                         |
| Generating Facility Type   |   |                                    |
| Single Phase <input type="checkbox"/>                                    | Three Phase <input type="checkbox"/>          |                                    |
| Induction <input type="checkbox"/>                                       | D.C. <input type="checkbox"/>                 |                                    |
| Other <input type="checkbox"/>   |   |                                    |
| Nameplate AC Rating: _____ kW or _____ kVA                               |   |                                    |
| Generating Facility/Inverter AC output voltage: _____ Volts              |   |                                    |
| Rated Current: _____ (amps)  |   |                                    |
| Prime Mover:   |   |                                    |
| Photovoltaic <input type="checkbox"/>                                    | Reciprocating Engine <input type="checkbox"/> | Fuel Cell <input type="checkbox"/> |
| Turbine <input type="checkbox"/>   | Other <input type="checkbox"/>                |                                    |
| Energy Source:   |   |                                    |
| Solar <input type="checkbox"/>   | Wind <input type="checkbox"/>                 | Hydro <input type="checkbox"/>     |
| Diesel <input type="checkbox"/>  | Natural Gas <input type="checkbox"/>          | Fuel Oil <input type="checkbox"/>  |
| Other <input type="checkbox"/>   |   |                                    |
| UL 1741 Listed? Yes <input type="checkbox"/> No <input type="checkbox"/> |   |                                    |

7. Location of proposed new DR facility.

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8. DR has attached a Single Line Diagram of Facility?  Yes  No

9. Primary Intent of DR

- Load Displacement
- Parallel Operation with Manitoba Hydro System
- Energy Export to Manitoba Hydro Grid

10. Energy Profile of Generating Facility.

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11. I, the undersigned an authorized representative of the DR, submit this Interconnection Request to Manitoba Hydro.

This Interconnection Request is submitted by:

Name of DR \_\_\_\_\_  
 By (signature) \_\_\_\_\_  
 Name (type or print): \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Date signed: \_\_\_\_\_

## **ATTACHMENT - 2**

### **Distributed Resources Engineering Study Agreement**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, existing under the laws of Manitoba, (sometimes hereinafter referred to as “Distributed Resource” or “DR”), and Manitoba Hydro, a Crown Corporation incorporated pursuant to The Manitoba Hydro Act, R.S.M. 1987, c.H190. DR and Manitoba Hydro each may be referred to as a “Party,” or collectively as the “Parties.”

#### **RECITALS**

**WHEREAS**, DR has submitted a DR Interconnection Request (Attachment 1) (the “Request”) in accordance with the Manitoba Hydro Distributed Resources Interconnection Guidelines;

**WHEREAS**, DR has received notice from Manitoba Hydro that an Engineering Study (the “Study”) is necessary to accommodate the service requested in the Request; and

**WHEREAS**, DR has requested that Manitoba Hydro prepare a Study to assess the adequacy of the Manitoba Hydro’s transmission system and any other affected parties/systems to accommodate the Request.

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

#### **1.0 DEFINITIONS**

1.1 Terms used in this Agreement with initial capitalization, unless otherwise defined herein, shall have the meanings specified in the Distributed Resources Interconnection Procedures Attachment 1 – Glossary of Terms .

#### **2.0 TERMINATION**

Manitoba Hydro – DRIP Attachment 2

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- 2.1 **Effective Date** - This Agreement shall become effective on the date on which this Agreement is made and entered into 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 agree to mutually terminate this Agreement, (ii) 12 months after the date of this Agreement; or (iii) earlier termination as provided for under this Agreement.
- 2.3 **Termination for Breach** - Either Party may terminate this Agreement upon 30 days notice to the other Party of a breach by the other Party of this Agreement provided that such breach remains uncured during such 30 day period and further, provided that such terminating Party complies with any and all applicable laws, rules and regulations relating to such termination.
- 2.4 **Liability on Termination** – On termination of this Agreement, DR shall remain liable to Manitoba Hydro for costs of the Study already incurred, costs of the Study that cannot be reasonably avoided and for the costs of terminating the Study.

### 3.0 **ENGINEERING STUDY**

- 3.1 **Scope** - The scope of the Study shall be subject to the data and other information provided by the DR in the Request and any additional information, assumptions or procedures set forth in Exhibit A of this Agreement. Manitoba Hydro will advise DR of additional information as may be reasonably deemed necessary by Manitoba Hydro to complete the Study and DR shall provide updated data and information upon request of Manitoba Hydro. Such additional information shall be obtained only if required by Good Utility Practice and shall be subject to the consent of DR, not to be unreasonably withheld, conditional or delayed. If DR's Interconnection Request is modified or the technical information provided in Exhibit B is modified, incomplete, or inaccurate, the time to complete the Study may be extended and/or the results may be inaccurate.
- 3.2 **Study Report** - A report shall be prepared by Manitoba Hydro (the "Study Report") which will provide the following information:
- 3.2.1 Identification of any system constraints due to thermal overload, voltage limit violations, or instability or inadequately damped response to system disturbances as a result of the proposed DR interconnection.
  - 3.2.2 Identification of any affected third parties as a result of the proposed DR interconnection.
  - 3.2.3 Identification of any circuit breaker short circuit capability limits exceeded as a result of the proposed DR interconnection.
  - 3.2.4 Identification of the any required Distribution System Upgrades as a result of the

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proposed DR interconnection.

3.2.5 A non-binding good faith estimate of the cost to install the Distribution System Network Upgrades as a result of the proposed DR interconnection.

3.2.6 A good faith estimate of the schedule to complete the installation of the Distribution System Upgrades as a result of the proposed DR interconnection.

A copy of the Study Report together with the related work papers shall be made available to the DR.

#### **4.0 ENGINEERING STUDY COSTS**

4.1 The DR shall pay to Manitoba Hydro, concurrent with the signing and delivery of this Agreement, the sum of \$ \_\_\_\_\_ (plus applicable taxes) (for the performance by Manitoba Hydro of the Study and the preparation of the Study Report / as a deposit to be applied toward the actual costs incurred by Manitoba Hydro for the Study and the Study Report which the DR agrees to pay upon receipt of an invoice for such costs).

#### **5.0 GENERAL**

5.1 Interconnection of the Facility shall be subject to the provisions of the Manitoba Hydro DR Interconnection Guidelines and applicable regulatory and any other required approvals.

5.2 This Agreement shall be governed and interpreted in accordance with the laws of the Province of Manitoba.

5.3 This Agreement shall not be assigned without the prior written consent of the other Party.

5.4 Any amendments to this Agreement shall be in writing and signed by the Parties.

5.5 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.

5.6 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 DR or between DR and any officers, employees or agents of Manitoba Hydro.

5.7 DR acknowledges that Manitoba Hydro is relying upon information provided by the DR

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and other parties in the preparation of the Study and Study Report.

- 5.8 Manitoba Hydro makes no representations or warranties with respect to the accuracy, completeness, reliability or suitability of the Study and Study Report. DR assumes any and all risk and responsibility for use of, and reliance on, the Study and Study Report. DR 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.
- 5.9 DR 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.
- 5.10 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, the Study Report, 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 DR may be incorporated within the Service Product. The DR shall have no right to copy, modify, amend, alter, sell, lend or dispense of any such Service Products in any manner for any reason.
- 5.11 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.
- 5.12 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.

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- 5.13 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.
- 5.14 The estimated time for completion of the Study is 60 days. Manitoba Hydro shall use due diligence to complete the Study within the estimated time.
- 5.15 DR shall appoint and make available to Manitoba Hydro a designated and authorized representative through which Manitoba Hydro can coordinate work pertaining to the Study.

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**

**Place name of DR Interconnection Customer Here**

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

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

**EXHIBIT A**  
**to**

**To Engineering Study Agreement**

As a minimum the Engineering Study will examine the following:

|          |  | Applicable |
|----------|--|------------|
| <b>A</b> | <b>Existing System Characteristics</b> | ✓          |
| 1        | Feeder Load                            |            |
| 2        | Feeder Current Rating                  |            |
| 3        | Short-circuit level at the POI         |            |
| 4        | Supply Transformer                     |            |
| 5        | System Protection                      |            |
| 6        | Regulation                             |            |
| 7        | Capacitors                             |            |
|          |  |            |
| <b>B</b> | <b>Impact of Interconnection</b>       |            |
| 8        | Surge Impedance Loading                |            |
| 9        | Synchronous Stability                  |            |
| 10       | Self-excitation                        |            |
| 11       | Ferroresonance                         |            |
| 12       | Fault Current Contribution             |            |
| 13       | Power Quality (harmonics & flicker)    |            |
| 14       | Impact on Existing Utility Protection  |            |
| 15       | System Losses                          |            |
|          |  |            |
| <b>C</b> | <b>DR Protection</b>                   |            |
| 16       | Generator Protection                   |            |
| 17       | Utility Source Protection              |            |
| 18       | Anti-Islanding                         |            |
|          |  |            |
|          |  |            |

The Engineering Study Agreement will be based upon the following information, assumptions and procedures, in addition to the information provided in the completed Request:

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 \_\_\_\_\_Distribution 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:
12. TOTAL NUMBER OF GENERATORS AT THIS SITE:

**MODELING DATA FOR THIS SYNCHRONOUS GENERATOR**

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- 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 <sup>2</sup> ): |
|-----------------------------------|--------------------------------|
  
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:

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- 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):

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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 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:

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Effective: 2005 06 30

## ATTACHMENT 3

### INTERCONNECTION AND OPERATING AGREEMENT FOR DR TYPE I FACILITY – MOMENTARILY PARALLELING WITH MANITOBA HYDRO SYSTEM

**THIS AGREEMENT** is entered into by and between \_\_\_\_\_, (of the \_\_\_\_\_ of \_\_\_\_\_, in the Province of Manitoba / existing under the laws of the Province of Manitoba) (sometimes hereinafter referred to as “Generator”) and Manitoba Hydro, incorporated pursuant to Manitoba *Hydro Act*, R.S.M. 1987, c.H190, sometimes hereinafter referred to as “Manitoba Hydro.” Generator and Manitoba Hydro, each may be referred to as a “Party” or collectively as the “Parties.”

**WHEREAS**, Generator intends to own and operate a electrical generating Facility which will momentarily parallel with the Manitoba Hydro System at a voltage not to exceed 25 kV;

**AND WHEREAS**, Generator has requested, and Manitoba Hydro has agreed to enter into this Agreement with Generator for the purposes of interconnecting the Facility with the System 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:

#### **1. SCOPE AND LIMITATIONS OF AGREEMENT**

- 1.1** This Agreement shall be used for all Interconnection Requests submitted under the Manitoba Hydro Distributed Resources Interconnection Procedures for a TYPE I DR Interconnection.
- 1.2** This Agreement governs the terms and conditions under which the Generator’s Facility will interconnect with the System.
- 1.3** Nothing in this Agreement is intended to affect any other agreement between Manitoba Hydro and the Generator.

#### **2. EFFECTIVE DATE, TERM, TERMINATION AND DISCONNECTION**

- 2.1.** This Agreement shall become effective immediately upon execution by all Parties and shall continue in effect until terminated in accordance with this section.
- 2.2.** The Generator may terminate this Agreement at any time by giving Manitoba Hydro 20 Business Days written notice.
- 2.3.** Manitoba Hydro may terminate this Agreement immediately in the following circumstances:
  - (i) disconnection, abandonment or removal of the Facility by Generator;

- (ii) failure of the Generator to maintain the Facility in a safe manner or in a manner that prevents disruption to the System the determination of which is within the sole discretion of Manitoba Hydro;
- (iii) in the event that the Generator modifies the Facility or Generator Interconnection Facilities without the prior written approval of Manitoba Hydro;
- or
- (iv) upon termination of the electric distribution service by Manitoba Hydro.

- 2.4** Upon termination of this Agreement, the Facility will be disconnected from the System. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination. The provisions of this section shall survive termination of this Agreement.

### **3. DEFINITIONS**

- 3.1** All capitalized terms used in this Agreement, unless otherwise defined herein, shall have the meanings given to them in the Glossary of Terms (Appendix 1 to the Manitoba Hydro Distributed Resources Interconnection Procedures).

### **4. INTERCONNECTION SERVICE**

- 4.1** Subject to the terms of this Agreement, Manitoba Hydro shall provide Generator with Interconnection Service for the Facility at the Point of Interconnection for the term of this Agreement.

### **5. CONSTRUCTION AND MODIFICATIONS**

- 5.1 Generator Obligations.** Generator shall, at its expense, design, procure, construct, and install the Facility and the Generator Interconnection Facilities in accordance with Manitoba Hydro guidelines for momentary parallel operation with the distribution system as outlined in the Manitoba Hydro Distributed Resources Interconnection Procedures, and Good Utility Practice. The Generator Interconnection Facilities shall satisfy all requirements of applicable safety and/or engineering codes, including Manitoba Hydro's, and further, shall satisfy Applicable Laws and Regulations.
- 5.2 Access to Premises.** Manitoba Hydro may enter Generator's premise at all reasonable hours without notice to the Generator to disconnect the Facility and/or service to Generator whenever in Manitoba Hydro's sole opinion, a hazardous condition exists and such immediate action is necessary to protect persons, Manitoba Hydro facilities, from damage or interference caused by the Facility, or the absence or failure of properly operating protective devices.
- 5.3 Parallel Operation.** Generator shall not commence parallel operation of the Facility until written approval has been provided by Manitoba Hydro. Manitoba Hydro shall provide such written approval within ten (10) Days from Manitoba Hydro's receipt of a copy of the final electrical inspection report.

- 5.4 Final Inspection.** Manitoba Hydro shall have the right to have a representative present at the final inspection. Generator must notify Manitoba Hydro at least five (5) Days prior to such inspection.
- 5.5 Manitoba Hydro Modifications.** Manitoba Hydro may undertake modifications, additions or replacements (“Modification”) to its facilities subsequent to the Operation Date. In the event Manitoba Hydro plans to undertake a Modification that reasonably may be expected to impact the Generators facilities, Manitoba Hydro, in accordance with Good Utility Practice, shall provide the Generator with sufficient information regarding such Modification, so that the Generator may evaluate the potential impact of such Modification prior to commencement of the work.
- 5.6 Generator Modifications.** Any additions, modifications or replacements by Generator to the Facility shall require the Generator to submit an Interconnection Request

## 6. OPERATIONS

- 6.1 Manitoba Hydro Obligations.** Manitoba Hydro shall cause the System and Manitoba Hydro 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, including those of 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.
- 6.2 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 those of the, Manitoba Hydro 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.
- 6.3 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 Manitoba Hydro Interconnection Facilities or the System in connection with the operation of the Facility shall be installed by Manitoba Hydro at Generator's expense.
- 6.4 Requirements for Protection.** In compliance with applicable Interconnection 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 Manitoba Hydro 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-or under-frequency, sudden load rejection, over-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.

**6.5 Notice of Changes.** Generator shall notify Manitoba Hydro 30 days in advance of Generator's intention to change protection and control settings. Manitoba Hydro may disallow any changes that, in Manitoba Hydro's reasonably exercised discretion would result in a negative impact on Manitoba Hydro's operation of the System.

**6.6 Manitoba Hydro Right to Inspect.** Manitoba Hydro shall have the right upon reasonable notice to the generator, 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. However, the exercise or non-exercise by Manitoba Hydro 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.

## 7. MAINTENANCE

**7.1 Manitoba Hydro Obligations.** Manitoba Hydro shall maintain Manitoba Hydro Interconnection Facilities 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; (iv) in accordance with Applicable Laws and Regulations; and (v) in accordance with the provisions of this Agreement.

**7.2 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; (iv) in accordance with Applicable Laws and Regulations; and (v) in accordance with the

provisions of this Agreement. (vi) Generator shall be responsible for all expenses associated with maintaining the Facility and the Generator Interconnection Facilities.

**7.3 Inspections and Testing.** Each Party shall perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Facility with the System in a safe and reliable manner.

## **8. EMERGENCIES**

**8.1 Manitoba Hydro Authority.** Manitoba Hydro may, consistent with Good Utility Practice, take whatever actions or inactions with regard to the System or the Facility 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.

**8.2 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. Manitoba Hydro shall use Reasonable Efforts to assist Generator in such actions.

**8.3 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.

## **9. SAFETY**

**9.1** 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.

## **10. FORCE MAJEURE**

**10.1** If a Force Majeure event prevents a Party from fulfilling any obligations under this Agreement, the Party effected by the Force Majeure shall notify the other Party in writing or by telephone within a reasonable time after the occurrence of the existence of the Force Majeure, its expected duration and the steps being taken to mitigate the effects of the event on the Party's performance under this Agreement.

## 11. COMMERCIAL GENERAL LIABILITY INSURANCE

**11.1 General Insurance.** Generator shall, at its expense, provide and maintain in effect for the term of this Agreement, commercial general liability insurance in the amount of \$1,000,000 (One Million Dollars).

**11.2 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 date the Facility is first operated in parallel with the System and thereafter upon request during the term of this Agreement, certificates of insurance shall be furnished by Generator to Manitoba Hydro.

## 12. INDEMNITY AND LIMITATION OF LIABILITY.

**12.1 Indemnification.** 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, 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 with respect to any Loss to the extent the Loss results from the gross negligence or willful misconduct of the Party seeking indemnity.

**12.2 Limitation on Damages.** **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 AGREEMENT, 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. MANITOBA HYDRO SHALL NOT BE LIABLE FOR DAMAGES ARISING OUT OF SERVICES PROVIDED UNDER THIS AGREEMENT,**

**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.**

### **13. CONFIDENTIALITY**

**13.1 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 13, each Party shall hold in confidence and shall not disclose to any person information identified as Confidential without notice to the other party, unless legally required to do so by a Governmental Authority.

**13.2 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 13. 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 13, which equitable relief shall be granted without bond or proof of damages, 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 13, 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 13.

### **14. GENERAL**

**14.1 Notices.** Any notice, demand or request required or authorized in connection with this Agreement shall be deemed to be properly given if delivered in person or by courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Generator:

Attention:

Address:

City:

Telephone:

Province:

Fax:

Postal Code:

If to Manitoba Hydro

Attention:

Address:

City:

Telephone:

Province:

Fax:

Postal Code:



**14.2 Amendment.** This Agreement may not be altered or modified by either of the Parties, except by an instrument in writing executed by each of them.

**14.3 Waiver.** None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

**14.4 Prior Agreements.** This Agreement shall supersede any existing agreement under which Generator is currently operating the Facility and any such agreement shall be deemed terminated as of the date this Agreement becomes effective.

**14.5 Entire Agreement.** This Agreement contains the entire agreement and understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement.

**14.6 Assignment.** Neither Party shall voluntarily assign this Agreement or any of its rights or duties hereunder without the written consent of the other Party, which consent shall not be unreasonably withheld. Any such assignment or delegation made without such written consent shall be null and void.

**IN WITNESS WHEREOF,** the Parties hereto have executed this Agreement.

**[Insert name of Generator]**

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

**Manitoba Hydro**

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

## ATTACHMENT 4

### INTERCONNECTION AND OPERATING AGREEMENT FOR DR TYPE II & III FACILITY – 100 kW OR LESS - PARALLEL OPERATIONS WITH MANITOBA HYDRO SYSTEM

**THIS AGREEMENT** is entered into by and between \_\_\_\_\_, (of the \_\_\_\_\_ of \_\_\_\_\_, in the Province of Manitoba / existing under the laws of the Province of Manitoba) (sometimes hereinafter referred to as “Generator”) and Manitoba Hydro, incorporated pursuant to Manitoba *Hydro Act*, R.S.M. 1987, c.H190, sometimes hereinafter referred to as “Manitoba Hydro.” Generator and Manitoba Hydro, each may be referred to as a “Party” or collectively as the “Parties.”

**WHEREAS**, Generator intends to own and operate a generating Facility 100 kW or less which will operate in parallel with the Manitoba Hydro System at a voltage not to exceed 25 kV;

**AND WHEREAS**, Generator has requested, and Manitoba Hydro has agreed to enter into this Agreement with Generator for the purposes of interconnecting the Facility with the System 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:

#### 1. SCOPE AND LIMITATIONS OF AGREEMENT

- 1.1 This Agreement shall be used for all Interconnection Requests submitted under the Manitoba Hydro Distributed Resources Interconnection Procedures for a TYPE II DR Interconnection.
- 1.2 This Agreement governs the terms and conditions under which the Generator’s Facility will interconnect with the System.
- 1.3 Nothing in this Agreement is intended to affect any other agreement between Manitoba Hydro and the Generator.

#### 2. EFFECTIVE DATE, TERM, TERMINATION AND DISCONNECTION

- 2.1 This Agreement shall become effective immediately upon execution by all Parties and shall continue in effect until terminated in accordance with this section.
- 2.2 The Generator may terminate this Agreement at any time by giving Manitoba Hydro 20 Business Days written notice.
- 2.3 Manitoba Hydro may terminate this Agreement immediately in the following circumstances:
  - (i) disconnection, abandonment or removal of the Facility by Generator;

- (ii) failure of the Generator to maintain the Facility in a safe manner or in a manner that prevents disruption to the System the determination of which is within the sole discretion of Manitoba Hydro;
- (iii) in the event that the Generator modifies the Facility or Generator Interconnection Facilities without the prior written approval of Manitoba Hydro;
- or
- (iv) upon termination of the electric distribution service by Manitoba Hydro.

- 2.4** Upon termination of this Agreement, the Facility will be disconnected from the System. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of termination. The provisions of this section shall survive termination of this Agreement.

### **3. DEFINITIONS**

- 3.1** All capitalized terms used in this Agreement, unless otherwise defined herein, shall have the meanings given to them in the Glossary of Terms (Appendix 1 to the Manitoba Hydro Distributed Resources Interconnection Procedures).

### **4. INTERCONNECTION SERVICE**

- 4.1** Subject to the terms of this Agreement, Manitoba Hydro shall provide Generator with Interconnection Service for the Facility at the Point of Interconnection for the term of this Agreement.

### **5. CONSTRUCTION AND MODIFICATIONS**

- 5.1 Generator Obligations.** Generator shall, at its expense, design, procure, construct, and install the Facility and the Generator Interconnection Facilities in accordance with Manitoba Hydro guidelines for facilities 100 kW or less operating in parallel operation with the distribution system as outlined in the Manitoba Hydro Distributed Resources Interconnection Procedures, and Good Utility Practice. The Generator Interconnection Facilities shall satisfy all requirements of applicable safety and/or engineering codes, including Manitoba Hydro's, and further, shall satisfy Applicable Laws and Regulations.
- 5.2 Access to Premises.** Manitoba Hydro may enter Generator's premise at all reasonable hours without notice to the Generator to disconnect the Facility and/or service to Generator whenever in Manitoba Hydro's sole opinion, a hazardous condition exists and such immediate action is necessary to protect persons, Manitoba Hydro facilities, from damage or interference caused by the Facility, or the absence or failure of properly operating protective devices.
- 5.3 Parallel Operation.** Generator shall not commence parallel operation of the Facility until written approval has been provided by Manitoba Hydro. Manitoba Hydro shall provide such written approval within ten (10) Days from Manitoba Hydro's receipt of a copy of the final electrical inspection report.

- 5.4 Final Inspection.** Manitoba Hydro shall have the right to have a representative present at the final inspection. Generator must notify Manitoba Hydro at least five (5) Days prior to such inspection.
- 5.5 Manitoba Hydro Modifications.** Manitoba Hydro may undertake modifications, additions or replacements (“Modification”) to its facilities subsequent to the Operation Date. In the event Manitoba Hydro plans to undertake a Modification that reasonably may be expected to impact the Generators facilities, Manitoba Hydro, in accordance with Good Utility Practice, shall provide the Generator with sufficient information regarding such Modification, so that the Generator may evaluate the potential impact of such Modification prior to commencement of the work.
- 5.6 Generator Modifications.** Any additions, modifications or replacements by Generator to the Facility shall require the Generator to submit an Interconnection Request .

## 6. OPERATIONS

- 6.1 Manitoba Hydro Obligations.** Manitoba Hydro shall cause the System and Manitoba Hydro 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, including those of 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.
- 6.2 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 those of the, Manitoba Hydro 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.
- 6.3 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 Manitoba Hydro Interconnection Facilities or the System in connection with the operation of the Facility shall be installed by Manitoba Hydro at Generator's expense.
- 6.4 Requirements for Protection.** In compliance with applicable Interconnection 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 Manitoba Hydro 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-or under-frequency, sudden load rejection, over-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.

- 6.5 Notice of Changes.** Generator shall notify Manitoba Hydro 30 days in advance of Generator's intention to change protection and control settings. Manitoba Hydro may disallow any changes that, in Manitoba Hydro's reasonably exercised discretion would result in a negative impact on Manitoba Hydro's operation of the System.
- 6.6 Manitoba Hydro Right to Inspect.** Manitoba Hydro shall have the right upon reasonable notice to the generator, 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. However, the exercise or non-exercise by Manitoba Hydro 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.

## 7. MAINTENANCE

- 7.1 Manitoba Hydro Obligations.** Manitoba Hydro shall maintain Manitoba Hydro Interconnection Facilities 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; (iv) in accordance with Applicable Laws and Regulations; and (v) in accordance with the provisions of this Agreement.
- 7.2 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; (iv) in accordance with Applicable Laws and Regulations; and (v) in accordance with the provisions of this Agreement. (vi) Generator shall be responsible for all expenses associated with maintaining the Facility and the Generator Interconnection Facilities.
- 7.3 Inspections and Testing.** Each Party shall perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Facility with the System in a safe and reliable manner.

## 8. EMERGENCIES

- 8.1 Manitoba Hydro Authority.** Manitoba Hydro may, consistent with Good Utility Practice, take whatever actions or inactions with regard to the System or the Facility 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.
- 8.2 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. Manitoba Hydro shall use Reasonable Efforts to assist Generator in such actions.
- 8.3 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.

## 9. SAFETY

- 9.1** 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.

## 10. FORCE MAJEURE

- 10.1** If a Force Majeure event prevents a Party from fulfilling any obligations under this Agreement, the Party effected by the Force Majeure shall notify the other Party in writing or by telephone within a reasonable time after the occurrence of the existence of the Force Majeure, its expected duration and the steps being taken to mitigate the effects of the event on the Party's performance under this Agreement.

## 11. COMMERCIAL GENERAL LIABILITY INSURANCE

- 11.1 General Insurance.** Generator shall, at its expense, provide and maintain in effect for the term of this Agreement, commercial general liability insurance in the amount of \$1,000,000 (One Million Dollars).
- 11.2 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 date the Facility is first operated in parallel with the System and thereafter upon request during the term of this Agreement, certificates of insurance shall be furnished by Generator to Manitoba Hydro.

## 12. INDEMNITY AND LIMITATION OF LIABILITY.

**12.1 Indemnification.** 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, 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 with respect to any Loss to the extent the Loss results from the gross negligence or willful misconduct of the Party seeking indemnity.

**12.2 Limitation on Damages.** 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 AGREEMENT, 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. MANITOBA HYDRO SHALL NOT BE LIABLE FOR DAMAGES ARISING OUT OF SERVICES PROVIDED UNDER THIS AGREEMENT, 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.

## 13. CONFIDENTIALITY

**13.1 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 13, each Party shall hold in confidence and shall not disclose to any person information

identified as Confidential without notice to the other party, unless legally required to do so by a Governmental Authority.

**13.2 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 13. 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 13, which equitable relief shall be granted without bond or proof of damages, 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 13, 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 13.

#### 14. GENERAL

**14.1 Notices.** Any notice, demand or request required or authorized in connection with this Agreement shall be deemed to be properly given if delivered in person or by courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Generator:

Attention:

Address:

City:

Province:

Postal Code:

Telephone:

Fax:

If to Manitoba Hydro

Attention:

Address:

City:

Province:

Postal Code:

Telephone:

Fax:

**14.2 Amendment.** This Agreement may not be altered or modified by either of the Parties, except by an instrument in writing executed by each of them.

**14.3 Waiver.** None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

**14.4 Prior Agreements.** This Agreement shall supersede any existing agreement under which Generator is currently operating the Facility and any such agreement shall be deemed terminated as of the date this Agreement becomes effective.

**14.5 Entire Agreement.** This Agreement contains the entire agreement and understanding between the Parties, their agents, and employees as to the subject matter of this



Manitoba Hydro

Agreement. Each party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement.

**14.6 Assignment.** Neither Party shall voluntarily assign this Agreement or any of its rights or duties hereunder without the written consent of the other Party, which consent shall not be unreasonably withheld. Any such assignment or delegation made without such written consent shall be null and void.

**IN WITNESS WHEREOF**, the Parties hereto have executed this Agreement.

**[Insert name of Generator]**

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

**Manitoba Hydro**

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

**ATTACHMENT 5  
INTERCONNECTION AND OPERATING AGREEMENT  
FOR DR TYPE II, III AND TYPE IV FACILITIES**

**made between**

**MANITOBA HYDRO**

**and**

**on the \_\_\_\_ day of \_\_\_\_\_, 2005**

## DISTRIBUTED RESOURCES

### INTERCONNECTION AND OPERATING AGREEMENT

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_ 2005, by and between \_\_\_\_\_, existing under the laws of the Province of Manitoba, (hereinafter referred to as “Generator”) and Manitoba Hydro, incorporated pursuant to *The Manitoba Hydro Act*, R.S.M. 1987, c.H190. Generator and Manitoba Hydro, 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 Manitoba Hydro;

**AND WHEREAS**, Generator has requested, and Manitoba Hydro has agreed to enter into this Interconnection and Operating Agreement with Generator for the purposes of interconnecting the Facility with the System 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

**1.1** Terms used in this Agreement with initial capitalization, unless otherwise defined herein, shall have the meanings specified in the Glossary of Terms (Appendix 1 to the Manitoba Hydro Distributed Resources Interconnection Procedures) (the “Glossary”). Terms used in this Agreement with initial capitalization not defined in the Glossary shall have the meanings specified in the Manitoba Hydro Open Access Interconnection Tariff.

#### ARTICLE 2 - TERM OF AGREEMENT

**2.1 Effective Date.** This Agreement shall become effective on the later of: (i) the date on which this Agreement is executed by the Parties; and (ii) the date upon which all required regulatory or legal authorizations are received 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 4.1.5; or (v) Generator, having no outstanding contractual obligations to Manitoba Hydro under this Agreement, terminates

this Agreement after providing Manitoba Hydro with written notice at least 20 twenty 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.** Manitoba Hydro shall provide Generator with Interconnection Service for the Facility at the Point of Interconnection for the term of this Agreement.
- 3.2 Limitations on Scope of Service.** Except as otherwise provided under this Agreement, Manitoba Hydro shall have no obligation under this Agreement to pay Generator any wheeling or other charges for electric power and/or energy transferred through the Facility.

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

- 4.1 Construction.**
- 4.1.1 Generator Obligations.** Generator shall, at its expense, design, procure, construct, and install the Facility and the Generator Interconnection Facilities in accordance with the Engineering Study, Interconnection Requirements and Good Utility Practice. The Generator Interconnection Facilities shall satisfy all requirements of applicable safety and/or engineering codes, including Manitoba Hydro's, and further, shall satisfy Applicable Laws and Regulations.
- 4.1.2 Generator Specifications.** Generator shall submit all final specifications for Generator Interconnection Facilities, including System Protection Facilities, to Manitoba Hydro for review and approval at least ninety (90) days prior to interconnecting Generator Interconnection Facilities with the System 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 Manitoba Hydro Engineering Study and Interconnection Requirements. Manitoba Hydro shall review and comment on such specifications within thirty (30) days.
- 4.1.3 Manitoba Hydro Review.** Manitoba Hydro'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. Manitoba Hydro 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 Manitoba Hydro'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 Manitoba Hydro in accordance with Good Utility Practice. The cost of such changes shall be borne in accordance with Section 4.3.4.

**4.1.4 Manitoba Hydro Obligations.** Manitoba Hydro shall design, procure, construct and install, and Generator shall pay, consistent with Section 13.3, the cost of, all Manitoba Hydro Interconnection Facilities and Interconnection System Upgrades identified in Appendix A. 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 Manitoba Hydro Interconnection Facilities and Interconnection System Upgrades ("Construction Expenditures"). All Manitoba Hydro Interconnection Facilities and Interconnection System Upgrades designed, procured, constructed, installed and maintained by Manitoba Hydro pursuant to this Agreement shall satisfy all requirements of applicable safety and/or engineering codes, including those of Manitoba Hydro, and comply with Good Utility Practice, and further, shall satisfy all Applicable Laws and Regulations. Manitoba Hydro Interconnection Facilities and Interconnection System Upgrades shall be owned by Manitoba Hydro.

**4.1.5 Right to Suspend Due to Default.** Manitoba Hydro reserves the right, upon written notice to Generator, to suspend, at any time, work by the Manitoba Hydro and the incurrence of additional expenses associated with the construction and installation of the Manitoba Hydro 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 Manitoba Hydro shall not affect Manitoba Hydro's right to terminate the work or this Agreement pursuant to Section 17.7. In such events, Generator shall be responsible for costs which Manitoba Hydro incurs.

**4.1.6 Construction Status.**

**4.1.6.1 Manitoba Hydro Status Reports.** Manitoba Hydro 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 Manitoba Hydro 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 Manitoba Hydro reasonably expects may delay construction of, or may increase the cost by ten percent (10%) or more of, the Manitoba Hydro Interconnection Facilities and/or Interconnection System Upgrades.

**4.1.6.2 Generator Status Reports.** Generator shall inform Manitoba Hydro on a regular basis, and at such other times as Manitoba Hydro 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.

**4.1.7 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 4.1.7 and Subsections 4.1.7.1 and 4.1.7.2; 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 Generator's premises shall be provided by and at Generator's expense for installation of metering devices, unless Manitoba Hydro elects to install meters on poles or other locations controlled by it. Generator grants to Manitoba Hydro at all reasonable times and with reasonable supervision, the right of free ingress and egress to Generator's premises for the purpose of installing, testing, reading, inspecting, repairing, operating, altering or removing any of Manitoba Hydro's property located on Generator's premises.

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

**4.1.7.2 Safety.** In connection with the Access Party's exercise of rights under Section 4.1.7, 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.

#### **4.1.8 Timely Completion and Testing.**

**4.1.8.1 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 A, which schedule may be revised from time to time by mutual agreement of the Parties.

**4.1.8.2 Manitoba Hydro Obligations.** Manitoba Hydro shall use Reasonable Efforts to design, procure, construct, install, and test the Manitoba Hydro Interconnection Facilities and Interconnection System Upgrades in accordance with the schedule set forth in Appendix A, 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 Manitoba Hydro Interconnection Facilities or the Interconnection System Upgrades, or the ability to complete any of them, Manitoba Hydro shall promptly notify Generator. In such circumstances, Manitoba Hydro shall, within fifteen (15) days after notifying Generator of such an event and corresponding delay, convene a technical meeting between Generator and Manitoba Hydro to evaluate the alternatives available to Generator. Manitoba Hydro 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 Manitoba Hydro that is reasonably needed by Generator to evaluate alternatives. Manitoba Hydro 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, provided that Generator authorizes such actions and the costs associated therewith in advance.

**4.1.9 Pre-Commercial Testing.** Prior to the interconnection and operation of the Facility in parallel with the System (the "Operation Date"), the Interconnection Facilities and Interconnection System Upgrades shall be tested to ensure, to Manitoba Hydro's satisfaction, their safe and reliable operation in accordance with Good Utility Practice, any applicable Manitoba Hydro criteria and requirements, including Interconnection Requirements and any Applicable Laws and Regulations ("Pre-Commercial Testing"). Similar testing may be required after initial energization, but prior to Operation Date and again as required by Manitoba Hydro or the above-mentioned organizations. The cost of all such testing shall be borne by Generator.

**4.1.10 Modifications Prior to Operation Date.** Based upon the Pre-Commercial Testing, Generator shall be responsible for making any modifications prior to the

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 Manitoba Hydro and requirements, and all Applicable Laws and Regulations, and Manitoba Hydro is responsible for making any modifications prior to the Operation Date that are necessary to ensure the safe and reliable operation of the Manitoba Hydro Interconnection Facilities and Interconnection System Upgrades in accordance with Good Utility Practice and all applicable Manitoba Hydro criteria and requirements, and all Applicable Laws and Regulations. The costs of all such modifications are to be borne by Generator.

**4.2 Drawings.** Subject to the requirements of Article 19, upon completion of any construction or modification to the Facility and/or the Generator Interconnection Facilities that may reasonably be expected to affect the System, but not later than ninety (90) days thereafter, Generator shall issue "as built" drawings to Manitoba Hydro, unless the Parties reasonably agree that such drawings are not necessary.

**4.3 Modifications Subsequent to Operation Date.**

**4.3.1 General.** Subject to the remainder of the provisions in this Section 4.3, either Party may undertake modifications, additions or replacements ("modification") to its facilities subsequent to the 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.

**4.3.2 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 Manitoba Hydro to make additions, modifications or replacements to Manitoba Hydro Interconnection Facilities or the System shall not be scheduled until Manitoba Hydro has completed the necessary modifications to its facilities and Generator has made payment pursuant to Section 4.3.4.



- 4.3.3 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, and Manitoba Hydro guidelines.
- 4.3.4 Modification Costs.** Generator shall be responsible for payment in advance of the costs of (i) any additions, modifications, or replacements made to Manitoba Hydro 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 4.1.3, Good Utility Practice or to comply with changes in Applicable Laws and Regulations, or Applicable Reliability Organization requirements.
- 4.3.5 Capacity Increases.** The provisions of this Section 4.3 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 Manitoba Hydro technical requirements document DRG2003 as may be amended or replaced from time to time. Such modifications shall require the submission of an Interconnection Request pursuant to the Interconnection Procedures.

## ARTICLE 5 - OPERATIONS

- 5.1 General.** The respective operations of Manitoba Hydro and Generator under this Agreement shall comply with Interconnection Requirements, the Operating Requirements attached hereto as Appendix D and the requirements, directions, manuals, standards, and guidelines of Manitoba Hydro.
- 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 Facility 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 Manitoba Hydro Obligations.** Manitoba Hydro shall cause the System and Manitoba Hydro 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, including those of 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.** Manitoba Hydro shall have direct control of the System. This responsibility and control will require that, from time to time, Manitoba Hydro will provide operating instructions to Generator consistent with this Agreement, Good Utility Practice, applicable operational and/or reliability criteria, protocols, and directives, including those of the Applicable Laws and Regulations. Generator shall inform Manitoba Hydro of any consequential, negative impacts on Generator of the direction provided by the Manitoba Hydro to Generator. Manitoba Hydro shall factor these impacts into the direction it then provides to Generator, to the extent considered feasible by Manitoba Hydro. Any direction provided to Generator shall follow Good Utility Practice, applicable operational and/or reliability criteria, protocols, and directives, including those of the 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 those of Manitoba Hydro 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
- 5.7 Operating Requirements.** Prior to the Operation Date, Manitoba Hydro shall establish Operating Requirements to promote coordinated and reliable operation of the Parties' respective facilities. The Operating Requirements shall be attached as Appendix D. Manitoba Hydro shall have the right to revise the Operating Requirements from time to time as deemed necessary without the consent of Generator. Written notice of the revised Operating Requirements and their effective date shall be provided to Generator and included by the Parties in Appendix D. Operating Requirements as established pursuant to Section 5.7 and as amended from time to time by Manitoba Hydro shall be incorporated into and form part of this Agreement.
- 5.8 Operating Expenses.** Generator shall be responsible for all expenses associated with operating the Facility and the Generator Interconnection Facilities. Generator shall reimburse Manitoba Hydro, by way of monthly payments pursuant to Section 13.4, for the actual cost incurred by Manitoba Hydro for operating and maintaining the Manitoba Hydro 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.
- 5.9 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 Manitoba Hydro Interconnection Facilities or the System in connection with the operation of the Facility shall be installed by Manitoba Hydro at Generator's expense.
- 5.9.1 Requirements for Protection.** In compliance with applicable Interconnection 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 Manitoba Hydro 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-or under-frequency, sudden load rejection, over-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.

**5.9.2 Power Quality.** The design and operation of the Facility shall not adversely impact power quality as specified in the Manitoba Hydro power quality specification document PQS2000 as may be amended or replaced from time to time.

**5.9.3 Notice of Changes.** Generator shall notify Manitoba Hydro 30 days in advance of Generator's intention to change protection and control settings. Manitoba Hydro may disallow any changes that, in Manitoba Hydro's reasonably exercised discretion would result in a negative impact on Manitoba Hydro's operation of its transmission facilities.

**5.9.4 Manitoba Hydro Right to Inspect.** Manitoba Hydro shall have the right, but shall have no obligation or responsibility, upon reasonable notice to Generator 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. However, the exercise or non-exercise by the Manitoba Hydro 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.

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

### **5.10.1 Outage Restoration.**

**5.10.1.1 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.

**5.10.1.2 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.

**5.10.2 Disconnection.**

**5.10.2.1 Disconnection after Agreement Terminates.** Upon termination of this Agreement by its terms, Manitoba Hydro may disconnect the Facility from the System in accordance with a plan for disconnection upon which the Parties agree.

**5.10.3 Interruptions.**

**5.10.3.1 Preservation of Reliable Operations.** Subject to the provisions of this Section 5.10.3.1, if required by Good Utility Practice to do so, Manitoba Hydro may require Generator to curtail, interrupt or reduce deliveries of electricity if such delivery of electricity adversely affects Manitoba Hydro'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 Manitoba Hydro 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 5.10.3.1:

- (a) The curtailment, interruption, or reduction shall continue only for so long as reasonably necessary under Good Utility Practice; and
- (b) 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.

**5.10.3.2 Interruptions for Other Causes.** Notwithstanding any other provision of this Agreement, Manitoba Hydro shall not be obligated to accept, and Manitoba Hydro may require Generator to curtail, interrupt or reduce, deliveries of energy if such delivery of energy impairs the ability of Manitoba Hydro 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, Manitoba Hydro shall exercise good faith efforts under the circumstances to provide Generator with reasonable notice thereof.

## ARTICLE 6 - MAINTENANCE

- 6.1 Manitoba Hydro Obligations.** Manitoba Hydro shall maintain the Manitoba Hydro 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; (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 those of the Applicable Reliability Organization; (iv) in accordance with Applicable Laws and Regulations; (v) in accordance with the provisions of this Agreement; and (vi) Generator shall be responsible for all expenses associated with maintaining the Facility and the Generator Interconnection Facilities. The expense incurred by Manitoba Hydro in maintaining the Manitoba Hydro 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 Manitoba Hydro as set forth in Section 5.8.
- 6.3 Coordination.** The Parties shall confer regularly to coordinate the planning and scheduling of preventative and corrective maintenance.
- 6.4 Inspections and Testing.** Each Party shall perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Facility with the System in a safe and reliable manner.
- 6.5 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.
- 6.6 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.

- 6.7 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.

## ARTICLE 7 - EMERGENCIES

- 7.1 Obligations.** Generator agrees to comply with the Emergency Condition procedures of Manitoba Hydro.
- 7.2 Manitoba Hydro Authority.** Manitoba Hydro 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. Manitoba Hydro 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 Manitoba Hydro 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 Manitoba Hydro 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. As requested by Manitoba Hydro, Generator shall assist Manitoba Hydro with any restoration efforts of the System.
- 7.4 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. Manitoba Hydro shall use Reasonable Efforts to assist Generator in such actions.
- 7.5 Interruption for Emergency Condition.** If at any time, in Manitoba Hydro's reasonable judgment exercised in accordance with Good Utility Practice, the continued operation of the Facility would cause an Emergency Condition, Manitoba Hydro may curtail, interrupt, or reduce energy delivered from the Facility to the System 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.

- 7.6 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, 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 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 Engineering Study.
- 9.2 Reactive Power Operations.** Generator shall operate the Facility to maintain voltage schedules, reactive schedules, or power factor schedules at the Point of Interconnection as prescribed by Manitoba Hydro. Generator shall not be entitled to compensation for the supply of reactive power.
- 9.3 Station Service.** Generator shall be responsible for making all appropriate arrangements for Station Power requirements, including distribution 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; and (ii) the retail purchase of energy.

## ARTICLE 10 - METERING

- 10.1 General.** Unless otherwise agreed by the Parties, Manitoba Hydro shall provide, install, operate, maintain, own and/or control suitable Metering Equipment at the Point of Interconnection prior to any operation of the Facility, excluding check metering. Generator shall supply, own, install and maintain check metering if Generator determines that such metering is desirable. Power flows to and from the Facility shall be measured at or, at Manitoba Hydro's option, compensated to the Point 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 Manitoba Hydro'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 Manitoba Hydro.

**10.3 Testing of Metering Equipment.** Manitoba Hydro shall, at Generator's expense, inspect and test all Manitoba Hydro-owned Metering Equipment upon installation and at least once every two (2) years thereafter. If requested to do so by Generator, Manitoba Hydro shall inspect or test Metering Equipment more frequently than every two (2) years, at the expense of Generator. Manitoba Hydro 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 Manitoba Hydro and the readings are available to Generator and if such data are requested by Manitoba Hydro, Generator shall report same to Manitoba Hydro'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 Manitoba Hydro and one or more locations designated by Generator.

**10.5 Communications.**

**10.5.1 Generator Obligations.** If required by Manitoba Hydro, Generator shall at its own expense maintain satisfactory operating communications with Manitoba Hydro's system dispatcher or representative, as designated by Manitoba Hydro, 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.

**10.5.2 Remote Terminal Unit.** If required by Manitoba Hydro, 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 Manitoba Hydro at Generator's expense, to gather accumulated and instantaneous data to be telemetered to a location(s) designated by Manitoba Hydro 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 Manitoba Hydro. Instantaneous bi-directional analog real power and reactive power flow information must be telemetered directly to the location(s) specified by Manitoba Hydro. 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 Manitoba Hydro’s control center or successor in function. Manitoba Hydro 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.

**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 incurred shall not be suspended by Force Majeure.

## ARTICLE 12 - INFORMATION REPORTING

- 12.1 Information Reporting Obligations.** Generator shall, in accordance with Good Utility Practice, promptly provide to Manitoba Hydro all relevant information, documents, or data regarding Generator's Facility and equipment which may reasonably be expected to pertain to the reliability of Generator's Facility and equipment and which has been reasonably requested by Manitoba Hydro.

## ARTICLE 13 - CREDITWORTHINESS, BILLING AND PAYMENTS

- 13.1 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 or (ii) the first date specified in Appendix A for the ordering of equipment by Manitoba Hydro for installing the Manitoba Hydro Interconnection Facilities and/or Interconnection System Upgrades, Generator shall provide Manitoba Hydro, at Manitoba Hydro's option, with a form of adequate assurance of creditworthiness satisfactory to Manitoba Hydro. If the adequate assurance is a parental guarantee or surety bond, it must be made by an entity that meets the creditworthiness requirements of Manitoba Hydro, have terms and conditions reasonably acceptable to Manitoba Hydro 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 Manitoba Hydro and must be acceptable to Manitoba Hydro and Manitoba Hydro's financial institution and the issuing bank, specify a reasonable expiration date and may provide that the maximum amount available to be drawn under the letter shall reduce on a monthly basis in accordance with the monthly payment schedule. The surety bond must be issued by an insurer reasonably acceptable to Manitoba Hydro, 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. 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 pursuant to this Agreement 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, Manitoba Hydro shall notify Generator of the estimated monthly payment obligation pursuant to this Agreement. Generator's estimated liability under Section 13.7 is stated in Appendix A.
- 13.2 Generator's Continuing Creditworthiness.** In the event Generator's creditworthiness becomes unsatisfactory to Manitoba Hydro, in its reasonably exercised discretion, for amounts for which payment is not otherwise assured, Manitoba Hydro may demand that Generator provide, at Generator's option (but subject to Manitoba Hydro's acceptance based upon reasonably exercised discretion), 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. 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 Manitoba Hydro 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 Manitoba Hydro, in its reasonably exercised discretion, for any of, but not limited to, the following reasons: failure of Generator to pay third parties; substandard performance by Generator of this Agreement; 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) 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 Manitoba Hydro 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 Manitoba Hydro Interconnection Facilities and the Interconnection System Upgrades ("Construction Expenditures"), as identified in Appendix A, in accordance with this Section 13.3.

**13.3.2 Advance Payment.** Prior to Manitoba Hydro commencing construction of the Manitoba Hydro Interconnection Facilities and any Interconnection System Upgrades and continuing throughout the construction period, Generator shall provide Manitoba Hydro with monthly cash deposits by wire transfer to the bank designated by Manitoba Hydro in amounts to be determined by Manitoba Hydro in accordance with the payment schedule attached as Appendix A. Manitoba Hydro shall provide Generator with monthly invoices itemizing the Construction Expenditures which have been drawn against the cash deposit. Manitoba Hydro 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. Interest shall be payable by or to Generator, as the case may be, on amounts by which the Generator's deposit for payment of Construction Expenditures pursuant to this Section, based on estimated costs, exceeds or is less than the actual costs incurred by Manitoba Hydro each month. Interest shall be calculated monthly at the rate of one percent less than the Prime Lending Rate, as in effect on the first day of the month, for the entire month.

- 13.3.3 Final Invoice for Construction Expenditures.** Within three (3) months after completion of the construction of the Manitoba Hydro Interconnection Facilities and the Interconnection System Upgrades, Manitoba Hydro shall provide an invoice of the final Construction Expenditures for the Manitoba Hydro 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 Manitoba Hydro Interconnection Facilities and the Interconnection System Upgrades exceeds 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 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, Manitoba Hydro shall refund to Generator an amount equal to the difference within thirty (30) days of the issuance of such final cost invoice. Manitoba Hydro shall use Reasonable Efforts to minimize its costs.
- 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 Manitoba Hydro for the installation of the Manitoba Hydro 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. 1952, c.148, as am.) and *The Income Tax Act* (R.S.M. 1987, c.110). 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 installation of the Manitoba Hydro 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 Manitoba Hydro becomes subject to taxation, or any amount in lieu thereof, Generator shall protect, indemnify and hold harmless Manitoba Hydro and its affiliated and associated companies, from all claims by any Governmental Authority for any tax, amount in lieu thereof, interest and/or penalties. Generator shall not be required to pay Manitoba Hydro for the tax, amount in lieu thereof, interest and/or penalties prior to the seventh (7th) 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 this Article 13, 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 13.7.1. Such estimated liability shall be stated in Appendix A.

- 13.7.2 Other Taxes.** 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.
- 13.8 Billing Disputes.** In the event of a billing dispute between Manitoba Hydro, and/or Generator, Manitoba Hydro 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 Manitoba Hydro 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, Manitoba Hydro 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 Payment During Dispute.** Subject to Section 13.8, in the event of a billing dispute between Manitoba Hydro 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 Manitoba Hydro 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 obligation hereunder. Any such assignment or delegation made without such written consent shall be null and void. In addition, Manitoba Hydro shall be entitled to assign this Agreement to any wholly-owned direct or indirect subsidiary of Manitoba Hydro.
- 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 Manitoba Hydro'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 Manitoba Hydro 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 Manitoba Hydro. 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 Manitoba Hydro, Manitoba Hydro shall provide notice and reasonable opportunity for such lenders to cure any Default under this Agreement. Manitoba Hydro 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 Manitoba Hydro 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 Manitoba Hydro are in Default; (ii) all representations made by Manitoba Hydro in this Agreement are true and complete as of the specified date; and (iii) all conditions to be satisfied by Manitoba Hydro 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, provide and maintain in effect for the term of this Agreement, minimum insurance coverage (in any combination of primary and excess layers) as follows:

**15.1.1 Commercial General Liability – If the generating capacity is equal to or less than 2MW, commercial general liability insurance including contractual liability coverage, for liabilities assumed under this Agreement and personal injury compensation in the minimum amount of \$1 million dollars (\$1,000,000) per occurrence for bodily injury and property damage. If the generating capacity is greater than 2 MW and less than or equal to 10 MW, commercial general liability insurance including contractual liability coverage, for liabilities assumed under this Agreement and personal injury compensation in the minimum amount of \$5 million dollars (\$5,000,000) per occurrence for bodily injury and property damage.** The policy shall be endorsed to include Manitoba Hydro 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. Manitoba Hydro shall not, by reason of their inclusion under this policy, incur liability to the insurance carrier for payment of premium for this policy.

**15.2 Generator Self-Insurance.** Generator, at its option, may, upon terms and conditions satisfactory to Manitoba Hydro, 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 the Manitoba Hydro 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 Manitoba Hydro 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.

**15.2 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

date the Facility is first operated in parallel with the System and annually thereafter during the term of this Agreement, certificates of insurance shall be furnished by Generator to Manitoba Hydro.

- 15.3 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 (R.S.M. 1987, c.W200) and upon failure to do so, Manitoba Hydro 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. Manitoba Hydro 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.** 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, 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 Person") 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 Person 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 Person; *provided*, however, that if the defendants in any such action include one or more Indemnified Persons and the indemnifying Party and the Indemnified Person shall have reasonably concluded that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the indemnifying Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on behalf of such Indemnified Person; provided, further that the indemnifying Party shall only be required to pay the fees and expenses of one additional



law firm to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses. The Indemnified Person 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 Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person or there exists a conflict or adversity of interest between the Indemnified Person and the indemnifying Party, and in such event the indemnifying Party shall pay the reasonable expenses of the Indemnified Person 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 Person, which shall not be unreasonably withheld or delayed.

**16.3 Indemnified Person.** If an Indemnified Person 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 Person 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 Person harmless under this Article 16, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, not of any insurance or other recovery.

**16.5 Limitation on Damages.** 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. 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.

## 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 Manitoba Hydro 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 where known and applicable, the steps necessary to cure such Breach. Upon receiving written notice of the Breach hereunder, the Breaching Party shall have thirty (30) days to cure such Breach 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. If the Breach is such that it cannot be cured within thirty (30) days, the Breaching Party shall commence in good faith all steps as are reasonable and appropriate to cure the Breach within such thirty (30) day time period and thereafter diligently pursue such action to completion. 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, 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 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 Manitoba Hydro 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 and, if applicable, Section 17.7.

**18.2 Disposition of Facilities Upon Termination of Agreement.**

**18.2.1 Manitoba Hydro Obligations.** Upon termination of this Agreement, unless otherwise agreed by the Generator in writing, Manitoba Hydro shall:

- (a) prior to the construction and installation of any portion of the Manitoba Hydro 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 Manitoba Hydro 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 Manitoba Hydro, Generator shall reimburse Manitoba Hydro for any costs incurred by Manitoba Hydro in performance of the actions required or permitted by Section 18.2.1 and for the cost of any Manitoba Hydro Interconnection Facilities and Interconnection System Upgrades described in Appendix A, including any study 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 Manitoba Hydro on or before the date of the termination of this Agreement. Manitoba Hydro 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 Manitoba Hydro Interconnection Facilities or Interconnection System Upgrades, Manitoba Hydro 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 Manitoba Hydro shall be responsible for all costs associated with procuring such facilities. To the extent that Generator has already paid Manitoba Hydro for any or all of such costs, Manitoba Hydro shall refund such amounts to Generator. If Manitoba Hydro elects not to retain any portion of such facilities, Manitoba Hydro 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 19 shall survive termination of this Agreement.

## ARTICLE 19 - CONFIDENTIALITY

- 19.1 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 19, each Party shall hold in confidence and shall not disclose to any person Confidential Information.
- 19.2 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 supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party, after due inquiry, was under no obligation to the other Party to keep such information confidential; (iv) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (v) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or breach of this Agreement; or (vi) is required, in accordance with Section 19.7 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.

- 19.3 Release of Confidential Information.** No Party shall release or disclose Confidential Information to any other person, except on a need-to-know basis, to its employees, consultants or to parties who may be or considering providing financing to or equity participation with Generator in connection with this Agreement, unless such person has first been advised of the confidentiality provisions of this Article 19 and has agreed to comply with such provisions. 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 19.
- 19.4 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.
- 19.5 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.
- 19.6 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as that it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. 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.
- 19.7 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 appropriate protective

order or agreement, or waive compliance with the terms of this Agreement. Notwithstanding the absence of a protective order or agreement, 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.

- 19.8 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 19, which equitable relief shall be granted without bond or proof of damages, 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 19, 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 19.

#### **ARTICLE 20 - INFORMATION ACCESS AND AUDIT RIGHTS**

- 20.1 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 20.1 and to enforce their rights under this Agreement.
- 20.2 Audit Rights.** Subject to the requirements of confidentiality under Article 19, 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. Any audit authorized by this Section 20.2 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 21 - DISPUTES**

- 21.1 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.
- 21.2 Equitable Remedies.** Subject to Section 21.3, 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.

- 21.3 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 22 - NOTICES

- 22.1 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 Manitoba Hydro:

[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]

- 22.2 Billings and Payments.** Billings and payments shall be sent to the addresses shown in Section 22.1.

- 22.3 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 Manitoba Hydro:

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 23 - MISCELLANEOUS

- 23.1 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.
- 23.2 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.
- 23.3 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.
- 23.4 Amendments.** 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.
- 23.5 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.
- 23.6 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.
- 23.7 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.
- 23.8 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.
- 23.9 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, and the expiration of any time period associated therewith. Each Party shall in good faith seek these other approvals as soon as is reasonably practicable.
- 23.10 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 23.10, 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.



**23.12 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 24 - REPRESENTATIONS AND WARRANTIES**

**24.1 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:

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

**24.1.2 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.

**24.1.3 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.

**24.1.4 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.

**24.1.5 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: \_\_\_\_\_

Manitoba Hydro

Name (typed or printed):

Title:

**Manitoba Hydro**

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

Name (typed or printed):

Title:

**APPENDIX A**  
**POINT OF INTERCONNECTION, MANITOBA HYDRO INTERCONNECTION**  
**FACILITIES, INTERCONNECTION SYSTEM UPGRADES, COST ESTIMATES**  
**AND RESPONSIBILITY, TRANSMISSION CREDITS, CONSTRUCTION**  
**SCHEDULE, AND MONTHLY PAYMENT SCHEDULE**

This Appendix A is a part of the Interconnection and Operating Agreement between Generator and Manitoba Hydro.

**1.1 Point of Interconnection.** The Point 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 of Interconnection, the metering point(s) shall be located at \_\_\_\_\_.

**1.2 Manitoba Hydro Interconnection Facilities (including metering equipment) to be constructed by Manitoba Hydro.** Manitoba Hydro shall construct \_\_\_\_\_.

**1.3 Manitoba Hydro Interconnection Facilities (including metering equipment) to be constructed by Generator.** Generator shall construct \_\_\_\_\_.

**1.4 Interconnection System Upgrades to be installed by Manitoba Hydro.** Manitoba Hydro shall install \_\_\_\_\_.

**1.5 Cost Estimates and Responsibility.** Generator and Manitoba Hydro hereby acknowledge and agree that the cost indicated below is only an estimate and that Generator hereby agrees to and shall reimburse Manitoba Hydro for all actual costs associated with the construction and installation by Manitoba Hydro of Manitoba Hydro Interconnection Facilities and the Interconnection System Upgrades.

**1.5.1** The cost for Manitoba Hydro Interconnection Facilities to be constructed by Manitoba Hydro is estimated at \$ \_\_\_\_\_.

**1.5.2** The cost for the Interconnection System Upgrades is estimated at \$ \_\_\_\_\_.

**1.5.3** The total cost for Manitoba Hydro Interconnection Facilities and Interconnection System Upgrades is estimated at \$ \_\_\_\_\_.

**1.5.4** Generator's liability for reimbursement of Manitoba Hydro 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 Manitoba Hydro Interconnection Facilities and Interconnection System Upgrades stated in Section 1.5.3 of this Appendix A.

**1.5.5** Generator shall comply with the following payment schedule if payment is made by cash.

**1.6 Construction Schedule.** Construction of the Facility, Generator Interconnection Facilities, Manitoba Hydro Interconnection Facilities and Interconnection System Upgrades is scheduled as follows: **[Insert construction schedule]**

**1.7 Permits, Licenses and Authorizations.** Manitoba Hydro shall obtain the following permits, licenses and authorizations:

**APPENDIX B  
FACILITY AND GENERATOR INTERCONNECTION FACILITIES**

This Appendix B is a part of the Interconnection and Operating Agreement between Generator and Manitoba Hydro.

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

**1.3 Permits, Licenses and Authorizations.** Generator shall obtain the following permits, licenses and authorizations:

Manitoba Hydro

### **APPENDIX C - OPERATION DATE**

This Appendix C is a part of the Interconnection and Operating Agreement between Generator and Manitoba Hydro.

**[Date]**

**[Generator]**

**[Address]**

**[Address]**

**[Address]**

**Re: [Facility]**

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

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

**Thank you.**

**[Signature]**

**[Manitoba Hydro Representative]**

## **APPENDIX D - OPERATING REQUIREMENTS**

This Appendix D is a part of the Interconnection and Operating Agreement between Generator and Manitoba Hydro.

**The unique requirements of each generation interconnection shall dictate the establishment of Operating Requirements by Manitoba Hydro that further define the requirements of this Interconnection and Operating Agreement.**

**Such Operating Requirements shall be attached to this Agreement as Appendix D prior to the Operation Date and as revised from time to time.**

**ATTACHMENT 6 – DR INTERCONNECTIONS 10 kW or LESS**

**REGISTRATION FORM**

1. Generator Contact Information

|                                |             |
|--------------------------------|-------------|
| Owner:                         |             |
| Street Address:                |             |
| City:                          |             |
| Email:                         |             |
| Phone Number:                  | Fax Number: |
| Emergency Contact:             |             |
| Manitoba Hydro Account Number: |             |

2. Electrical Inspection Permit Number \_\_\_\_\_.

3. Describe Electrical Disconnection Point

- a. Distribution Panel \_\_\_
- b. External Disconnect Switch \_\_\_
- c. Other \_\_\_\_\_

4. In-service date \_\_\_\_ \ \_\_\_\_ \ \_\_\_\_.

5. This Registration Form shall be submitted to:

Bob Graham Energy Services Advisor,  
 Customer Services Representative  
 Manitoba Hydro  
 235-10th St.  
 Brandon, MB  
 R7A 7J8  
 Phone (204) 727-9264  
 Fax (204) 727-7660  
 Email: [rgraham@hydro.mb.ca](mailto:rgraham@hydro.mb.ca)

6. Generating Facility / Inverter Information

|   |   |   |
|---|---|---|
| Manufacturer:   |   |   |
| Model No:   | Version No:                                   | Serial No:  |
| Generating Facility Type Single Phase <input type="checkbox"/>                |   |   |
| Nameplate AC Rating: _____ kW or _____ kVA                                    |   |   |
| Generating Facility/Inverter AC output voltage: _____ Volts                   |   |   |
| Rated Current: _____ (amps)   |   |   |
| Prime Mover:  |   |   |
| Photovoltaic <input type="checkbox"/>   | Reciprocating Engine <input type="checkbox"/> | Fuel Cell <input type="checkbox"/>                            |
| Turbine   | Other <input type="checkbox"/>                |   |
| Energy Source:  |   |   |
| Solar <input type="checkbox"/>  | Wind <input type="checkbox"/>                 | Hydro <input type="checkbox"/> Other <input type="checkbox"/> |
| CSA/ UL 1741 Listed? Yes <input type="checkbox"/> No <input type="checkbox"/> |   |   |

7. Address of installation (If different than 1 above)

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8. **Registration Form is submitted by:**

Name \_\_\_\_\_

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

Name (type or print): \_\_\_\_\_

Date signed: \_\_\_\_\_