

**APPENDIX 1 TO GIP  
INTERCONNECTION REQUEST**

1. [The undersigned Interconnection Customer submits this request to interconnect its Generating Facility, located in \_\_\_\_\_ County, [\_\_\_\_\_ State], with the Transmission System pursuant to the Tariff.] or;

[The undersigned MHVDC Connection Customer submits this request for Injection Rights for its MHVDC Transmission Line, located in \_\_\_\_\_ County, [\_\_\_\_\_ State], with the Transmission System pursuant to a Tariff.];

2. This Interconnection Request is for (check one):

- ☐ Proposed new Generating Facility
- ☐ Increase in the generating capacity or a Material Modification of an Existing Generating Facility
- ☐ Replacement of Existing Generating Facility with no increase in capacity
- ☐ Interconnection Request made in connection with a Generating Facility proposed for inclusion in a resource solicitation process
- ☐ Network Resource Interconnection Service for a Generating Facility in Commercial Operation or with an executed GIA
- ☐ Generating Facility requesting Surplus Interconnection Service
- ☐ Fast Track Process for Small Generating Facility
- ☐ Injection Rights associated with a new MHVDC Transmission Line.

3. The type of interconnection service requested is (check one as appropriate):

- ☐ Energy Resource Interconnection Service only
- ☐ Network Resource Interconnection Service (includes Energy Resource Interconnection Service)
- ☐ Network Resource Interconnection Service only for an Existing Generating Facility

- \_\_\_\_\_ Network Resource Interconnection Service in connection with a resource solicitation process
- \_\_\_\_\_ Surplus Interconnection Service
- \_\_\_\_\_ External Network Resource Interconnection Service (E-NRIS) for projects connecting to a Distribution System or non-MISO transmission system;

4. Interconnection Customer provides the following definitive information:

- a. Specific address or location (use closest street or intersection if no address is available) for the proposed new Generating Facility site or, in the case of an Existing Generating Facility, the name and specific location of the Existing Generating Facility (provide a site map and GPS coordinates);

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

GPS Coordinates: \_\_\_\_\_ N \_\_\_\_\_ W

- b. The following specific information related to the Interconnection Service Requested:

Required Information Related to Interconnection Request			Additional Information/Documentation
Installed Generating Facility Capacity (Maximum Gross Output)	Summer (MW/MVAR): ____/____	Winter (MW/MVAR): ____/____	
Existing Interconnection Service, if any	ERIS: (MW/MVAR): ____/____	NRIS: (MW/MVAR): ____/____	Provide GIA, and SIS report for Existing Generating Facility

New Interconnection Service or Increase in Existing Interconnection Service Requested (Maximum Injection at POI)	ERIS (New) (MW/MVAR): ____/____ or ERIS (Increase) (MW/MVAR): ____/____	NRIS (New) (MW/MVAR): ____/____ or NRIS (Increase) (MW/MVAR): ____/____	Requested total ERIS must be less than or equal to Installed Generating Facility Capacity. Requested total NRIS must be less than or equal to total requested ERIS.
Station Service Load, if any	Summer (MW/MVAR): ____/____	Winter (MW/MVAR): ____/____	
Surplus Interconnection Service Requested (No increase in Existing Interconnection Service)	Surplus Interconnection Service (MW/MVAR): ____/____		SIS report for existing unit and written statement pursuant to Section 6 of this Interconnection Request
“NRIS only”/ External NRIS	NRIS Only (MW/MVAR): ____/____	External-NRIS (MW/MVAR): ____/____	CP Node: _____ Point of Interconnection: _____ Bus Number in Power Flow Models: _____

- c. A description of the equipment configuration (i.e. Number of generators/inverters and number of Intermediate Step-up transformers, is this phase 2 of an existing project, etc.) for the entire Generating Facility:
- d. Generating Facility Commercial Operation Date \_\_\_\_\_,  
Synchronization Date \_\_\_\_\_, and required Interconnection Facilities  
In-Service Date \_\_\_\_\_ by day, month, and year;

- e. Name, address, telephone number, and e-mail address of the Interconnection Customer. If the Interconnection Customer has designated an agent, include its agent's contact person:

Interconnection Customer

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Interconnection Customer's Agent (if applicable)

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Agent's contact person: \_\_\_\_\_;

- f. An Internal Revenue Service Form W-9 or comparable state-issued document for the Interconnection Customer submitting this Interconnection Request;
- g. As applicable, documentation proving the existence of a legally-binding relationship between the Interconnection Customer and any entity with a vested interest in this Interconnection Request (*e.g.*, a parent company, a subsidiary, or financing company acting as agent for the Interconnection Customer) that the Interconnection Customer reasonably anticipates may claim rights or authority under this Interconnection Request. Such documentation may include but is not limited to the Interconnection Customer's Articles of Organization and Operating Agreement describing the nature of the legally-binding relationship;

- h. Interconnection Customer's banking information, or the banking information of any entity with a legally-binding relationship to the Interconnection Customer, in accordance with Section 4(f) of this Appendix 1, that wishes to make payments and receive refunds on behalf of the Interconnection Customer and in association with this Interconnection Request;

Bank Name: \_\_\_\_\_  
Account Holder Name: \_\_\_\_\_  
ABA number: \_\_\_\_\_  
Account Number: \_\_\_\_\_  
Company: \_\_\_\_\_  
Tax Reporting Name: \_\_\_\_\_  
Tax ID: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_  
Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

- i. Location of the proposed Point of Interconnection including the substation name or the name of the line to be tapped (including the voltage), the estimated distance from the substation endpoints of a line tap, address, and GPS coordinates (Not applicable to External NRIS Applications)

POI substation name: \_\_\_\_\_ or  
POI line name: \_\_\_\_\_ (endpoint 1) to \_\_\_\_\_ (endpoint 2)  
POI Distance from endpoint 1: \_\_\_\_\_ miles  
POI Distance from endpoint 2: \_\_\_\_\_ miles  
Interconnection voltage: \_\_\_\_\_ kV  
Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
GPS Coordinates: \_\_\_\_\_ N \_\_\_\_\_ W

j. Generating Facility Data (set forth in Attachment A);

k. Fuel Source(s) [Check all that are applicable]:

<input type="checkbox"/> Coal	<input type="checkbox"/> Nuclear	<input type="checkbox"/> Storage, specify type: _____
<input type="checkbox"/> Hydro	<input type="checkbox"/> Oil	<input type="checkbox"/> Wind
<input type="checkbox"/> Natural Gas	<input type="checkbox"/> Solar	<input type="checkbox"/> Other, specify type: _____

Describe the configuration of Generating Facility utilizing more than one fuel source:

\_\_\_\_\_  
\_\_\_\_\_;

If the proposed Generating Facility includes storage device(s), indicate whether the storage device(s) will be charged using energy from the Transmission System at any time: Yes \_\_\_\_\_ or No \_\_\_\_\_. If Yes, specify maximum MW that will be withdrawn from the Transmission System at any time: \_\_\_\_\_ MW. If Yes, specify the peak load charging case (check one):

\_\_\_\_\_ Will charge in the peak load study case  
\_\_\_\_\_ Will not charge in the peak load study case;

l. Qualifying Facility status including an indication of state and / or federal qualifications that have been met (optional);

m. If this Interconnection Request is made in connection with a resource solicitation process, attach a copy of a written agreement assigning the Interconnection Customer's rights under the GIP to the solicitor of the process and granting the

solicitor the right to act as the Interconnection Customer's agent for all purposes in the GIP;

- n. If this Interconnection Request is for Surplus Interconnection Service, attach a copy of the MISO Interconnection System Impact Study performed for the Existing Generating Facility when the Generating Facility was originally proposed for interconnection to the MISO Transmission System or, for Generating Facilities studied under a predecessor transmission provider's interconnection process, the original system impact study performed at the time such Generating Facility was originally studied for interconnection to the transmission system. If no such study is available, indicate this by checking the appropriate box below.
  - ☐ Study Attached (if this box is checked, a copy of the study must be included as an attachment to this Interconnection Request); or
  - ☐ No previous study is available;
- o. Energy Displacement Agreement (Appendix 12) and Monitoring and Consent Agreement (Appendix 11). In order for a Surplus Interconnection Request to remain valid, the Energy Displacement Agreement and Monitoring and Consent Agreement must be submitted prior to the conclusion of Generator Interconnection Agreement negotiations, pursuant to Section 11 of this GIP;
- p. Primary frequency response operating range for electric storage resources;
- q. If this Interconnection Request is for Generating Facility Replacement, Interconnection Customer must submit:  
Planned or Actual date of cessation of operation for the Existing Generating Facility: \_\_\_\_\_  
Expected Commercial Operation Date for the Replacement Generating Facility: \_\_\_\_\_

\_\_\_\_\_ (check if applicable) Interconnection Customer requests MISO to perform Attachment Y equivalent study in the Reliability Assessment Study;

- r. For Interconnection Requests proposing to share Interconnection Customer Interconnection Facilities with another Interconnection Request or existing project, a consent agreement meeting the requirements of Section 3.3.1.4 of the GIP and the Generator Interconnection Business Practices Manual executed by all Interconnection Customers affiliated with projects that propose to connect, or are connected, to the shared Interconnection Customer Interconnection Facilities.

\_\_\_\_\_ (check if applicable) Interconnection Customer proposes to share Interconnection Customer Interconnection Facilities with another Interconnection Request or existing project and has attached a fully executed consent agreement to this Interconnection Request.

If Interconnection Customer Interconnection Facilities will be shared, the MISO Project Number(s) of other Existing Generating Facilities or Interconnection Requests with which Interconnection Customer Interconnection Facilities will be shared shall be listed below. If no project number is available for any of the other Generating Facilities with which Interconnection Customer Interconnection Facilities will be shared, state the name of the Interconnection Customer and describe the applicable Generating Facilities below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_;

5. Interconnection Customer shall provide the applicable deposit amount as specified in the GIP;



6. If this Interconnection Request is submitted to request Surplus Interconnection Service, the undersigned Interconnection Customer shall supply a written statement from an officer of the Existing Generating Facility that is associated with this request for Surplus Interconnection Service that confirms the following:

- (i.) the amount of Surplus Interconnection Service made available by the Interconnection Customer of the Existing Generating Facility;
- (ii.) the type of Interconnection Service (i.e., ERIS or NRIS) made available by the Interconnection Customer for the Existing Generating Facility in accordance with the provisions in Section 3.2.3.1 of GIP (Attachment X); and
- (iii.) the circumstances under which the proposed Surplus Interconnection Service would be available, including an indication of whether the proposed Interconnection Service would be available on a continuous basis (i.e., a certain number of MW of Surplus Interconnection Service would always be available for use by a co-located generating facility) or on a scheduled, periodic basis (i.e., a specified number of MW of Surplus Interconnection Service that would be available intermittently);

7. Evidence of Site Control as specified in the GIP (check one)

- \_\_\_\_\_ Is attached to this Interconnection Request
- \_\_\_\_\_ Will be provided at a later date in accordance with the GIP;

8. This Interconnection Request shall be submitted electronically to the Transmission Provider in the manner specified by the Generator Interconnection Business Practices Manual (BPM-015).

9. Primary Representative of Interconnection Customer to contact:

[To be completed by Interconnection Customer]

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

Address: \_\_\_\_\_

City:\_\_\_\_\_ State:\_\_\_\_\_ Zip:\_\_\_\_\_

Phone:\_\_\_\_\_ Email:\_\_\_\_\_;

10. This Interconnection Request is submitted by:

[Name of Interconnection Customer Company]

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

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

Title:\_\_\_\_\_

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

**Attachment A to Appendix 1  
Interconnection Request**

**GENERATING FACILITY DATA**

**A. Unit Ratings**

1. Total Generator Rated Output (MW)	
2. Rated MVA	
3. Number of Generating units (repeat items 3-11 for each type of generator)	
4. Individual generator rated output (MW)	
5. Individual generator rated MVA	
6. Manufacturer	
7. Year manufactured*	
8. Nominal terminal voltage (kV)	
9. Minimum Short Circuit Ratio for turbine operation	
10. Rated power factor Refer: i. FERC Order No. 827 <a href="https://www.ferc.gov/whats-new/comm-meet/2016/061616/E-1.pdf">https://www.ferc.gov/whats-new/comm-meet/2016/061616/E-1.pdf</a> ii. MISO TO power factor requirements <a href="https://cdn.misoenergy.org/Reactive_Generator_Requirements108137.pdf">https://cdn.misoenergy.org/Reactive_Generator_Requirements108137.pdf</a>	
11. Generator Voltage Regulation range (+/-)	
12. Generator Power Factor Regulation range (+/-)	
13. Primary frequency response operating range for electric storage resources: i. Minimum state of charge: ii. Maximum state of charge:	 <hr/> <hr/>
14. Type (Induction, Synchronous, D.C. with Inverter)	
15. Connection (Delta, Grounded WYE, Undergrounded WYE, Impedance Grounded)	

**\*If available**

### A-1. Generator Short Circuit Information\*

(Provide following reactances in p.u. on the generator base)

1. $X''1$ —Positive sequence sub transient reactance (p.u.)	
2. $X2$ —Negative sequence reactance (p.u.)	
3. $X0$ —Zero sequence reactance (p.u.)	
4. Generator grounding: 4.a. Solidly grounded (yes/no) 4.b. Grounded through an impedance (yes/no) If yes: R _____ p.u.   X _____ p.u. 4.c. Ungrounded	

### A-2. Main Generator Step-up Up (GSU) Transformer

(Please fill out data in table below for each GSU transformer)

Number of Transformers \_\_\_\_\_

#### RATINGS

	Self-Cooled	Maximum Nameplate	
Capacity (kVA)			
	Generator Side	System Side	Tertiary
Voltage Ratio (kV)			
	Low Voltage	High Voltage	Tertiary Voltage
Winding Connections (Delta or Wye)			
IMPEDANCE	Primary-Secondary	Primary-Tertiary	Secondary-Tertiary
Positive $Z1$ (on self-cooled kVA rating)	_____ %    _____ X/R	_____ %    _____ X/R	_____ %    _____ X/R
Zero $Z0$ (on self-cooled kVA rating)	_____ %    _____ X/R	_____ %    _____ X/R	_____ %    _____ X/R
	<u>Fixed Taps Available</u>	<u>Present Tap Available</u>	
TAP SETTING			

### A-3. Pad Mount Transformer

(Please fill out data in table below for each GSU transformer)

Number of Transformers \_\_\_\_\_

#### RATINGS

	Self-Cooled	Maximum Nameplate	
Capacity (kVA)			
	Generator Side	System Side	Tertiary
Voltage Ratio (kV)			
	Low Voltage	High Voltage	Tertiary Voltage
Winding Connections (Delta or Wye)			
IMEPDANCE	Primary-Secondary	Primary-Tertiary	Secondary-Tertiary
Positive Z1 (on self-cooled kVA rating)	____ % ____ X/R	____ % ____ X/R	____ % ____ X/R
Zero Z0 (on self- cooled kVA rating)	____ % ____ X/R	____ % ____ X/R	____ % ____ X/R
	<u>Fixed Taps Available</u>	<u>Present Tap Available</u>	
TAP SETTING			

#### A-4. Interconnection Facilities Tie Line Information

(Only list data for lines that are to be added by the generation developer)

1. Nominal Voltage (kV)		
2. Line length (miles)		
3. Line termination points	1.	2.
4. Conductor Type/Size (kcm)		
5. Phase Configuration (Vertical or Horizontal)		
6. Summer line ratings in amperes (MVA)		
7. Positive sequence resistance (R) for entire length (in p.u.*)		
8. Positive sequence reactance (X) for entire length (in p.u.*)		
9. Zero sequence resistance (R0) for entire length (in p.u.*)		
10. Zero sequence reactance (X0) for entire length (in p.u.*)		
11. Positive sequence line charging (B) for the entire length (in p.u.*)		

\* On 100-MVA and nominal line voltage (kV) Base

**For wind/photovoltaic plants, provide System Equivalence Impedance Data. (Provide values for each equivalence collector circuit at all voltage levels. Equivalent collector system impedance does not include pad mount impedance)**

1. Nominal Voltage (kV)	
2. Summer line ratings in amperes (MVA)	
3. Positive sequence resistance (R) for entire length (in p.u.*)	
4. Positive sequence reactance (X) for entire length (in p.u.*)	
5. Zero sequence resistance (R0) for entire length (in p.u.*)	
6. Zero sequence reactance (X0) for entire length (in p.u.*)	
7. Positive sequence line charging (B) for the entire length (in p.u.*)	

\* On 100-MVA and nominal line voltage (kV) Base

#### **A-5. Dynamic Modeling Information**

The Interconnection Customer is to provide the appropriate PSS/E library model in the form of a Siemens PTI PSS/E dyr file. A detailed model of a generator must include:

- Generator Model
- Excitation System Model
  - May be omitted if unit is operated under manual excitation control
- Turbine-Governor Model
  - May be omitted if unit doesn't regulate frequency
- Power System Stabilizer Model
  - May be omitted if device is not installed or not active
- Reactive Line Drop Compensation Model
  - May be omitted if device is not installed or not active

Models submitted must be acceptable and recommended in the NERC Acceptable Model List posted at: [http://www.nerc.com/comm/PC/Pages/System-Analysis-and-Modeling-Subcommittee-\(SAMS\)-2013.aspx](http://www.nerc.com/comm/PC/Pages/System-Analysis-and-Modeling-Subcommittee-(SAMS)-2013.aspx) and also comply with MISO's MOD-032 Model Data Requirements and Reporting Procedures posted at: <https://www.misoenergy.org/planning/planning-modeling/mod-032-1>

#### **A-6. ONE-LINE & MODEL INFORMATION**

The Interconnection Customer shall provide a Power Flow model describing the generator in a format compatible with Siemens PTI PSS/E (.sav, .raw, .idev, .py, .prj, or equivalent format as specified by MISO).

The Interconnection Customer is to provide the definitive one-line diagram for the POI – Information shall include:

- Breaker layout, bus configuration (if available) and number of generators
- The zero sequence impedance (if applicable)
- The distance from the collector substation to the POI referenced in miles and the line impedance

- If the POI is a line tap, distance from the tap to the endpoints of the existing line referenced in miles
- Generator step up (GSU) transformer data and collector substation transformer data, including impedances for each phase of the transformer (if applicable)
- For inverter based generators, FERC Order 827 requires
  - Location and size of any dynamic and/or static VAR compensation devices
  - Equivalent collector system impedance

Models submitted should comply with MISO's Model Data Requirements and Reporting Procedures posted at: <https://www.misoenergy.org/planning/planning-modeling/mod-032-01>



**B. Synchronous Generator Information**  
**(e.g. Biomass, Coal, Diesel, Hydro, Natural Gas, Nuclear, Oil)**

1. (Repeat the following for each generator model) Rated Generator speed (rpm)		
2. Maximum Turbine MW (°F)		
3. Moment-of-Inertia, $WR^2$ (lb.ft. <sup>2</sup> for combined Turbine-Generator-Exciter-Inertia Data)		
4. Inertia Constant, H (kW sec/kVA for combined Turbine-Generator-Exciter-Inertia Data)		
<b>Reactance Data (Per Unit- Rated kVA)</b>		
	<b>Direct Axis</b>	<b>Quadrature Axis</b>
Synchronous-saturated	Xdv:	Xqv:
Synchronous-unsaturated	Xdi	Xqi
Transient – saturated	Xdv:	Xqv:
Transient – unsaturated	Xdi:	Xqi:
Subtransient – saturated	Xdv:	Xqv:
Subtransient – unsaturated	Xdi:	Xqi:
Negative Sequence - saturated	X2v:	
Negative Sequence - unsaturated	X2i:	
Zero Sequence – saturated	X0v:	
Zero Sequence – unsaturated	X0i:	
Leakage Reactance	Xlm:	
<b>Field Time Constant Data (sec)</b>		
Open Circuit	Td0:	Tq0:
Three-Phase Short Circuit Transient	Td3:	Tq:
Line-to-Line Short Circuit Transient	Td2:	
Line-to-Neutral Short Circuit Transient	Td1:	
Short Circuit Subtransient	Td:	Tq:
Open Circuit Subtransient	Td0:	Tq0:
<b>Armature Time Constant Data (sec)</b>		
Three Phase Short Circuit	Ta3	
Line-to-Line Short Circuit	Ta2	
Line-to-Neutral Short Circuit	Ta1	
<b>Armature Winding Resistance Data (Per Unit)</b>		
Positive	R1	
Negative	R2	
Zero	R0	
Rotor Short Time Thermal capacity I22t		
Field Current Rated kVA, Armature Voltage and, <b>PF</b>	= _____ amps	
Field Current Rated kVA, Armature Voltage and, <b>0 PF</b>	= _____ amps	

Three Phase Armature Winding Capacitance	= _____ microfarad
Field Winding Resistance	= _____ ohms C
Armature Winding Resistance (per Phase)	= _____ ohms C
5. Attach generator reactive capability curves	
6. Attach a plot of generator terminal voltage versus field current showing the air gap line, open-circuit saturation curve, and saturation curve at full load and rated power factor, and power quality curves specifying percent total harmonic distortion vertically and percent power output horizontally from 25 – 100% power output for both current and voltages or specify that the unit is IEEE 519 compliant.	

**B-1. Excitation System Information**  
(Repeat the following for each generator model)

1. Manufacturer and Type of excitation system used for the generator.	
2. Excitation System Response Ratio (ASA)	
3. Full load rated exciter output voltage	
4. Maximum exciter output voltage (ceiling voltage)	
5. Other comments regarding excitation system	
6. Attach IEEE block diagram of the excitation system and power system stabilizer (PSS) for computer representation in power system stability simulations and the corresponding excitation system and PSS constants for use in the model.	

**B-2. Turbine Governor Information**

(Repeat the following for each generator model and complete only section that applies to corresponding turbine type)

For all turbine types	a. Turbine manufacturer	
	b. Maximum turbine power output (MW)	
	c. Minimum turbine power output while on-line (MW)	
	d. Droop setting (speed regulation)	
	e. Is the governor mechanical-hydraulic or electro-hydraulic?	
	f. Other comments about turbine governor system?	
Steam, gas or combined cycle	a. Unit type (Steam, Gas, Combined Cycle)	
	b. If steam or combined-cycle, does turbine system have re-heat process (both high and low pressure turbines)?	

	c. If steam with reheat process, or if combined cycle, indicate low/high pressure turbine gas/steam (%)	
Hydro Turbines	a. Turbine efficiency at rated load (%)	
	b. Length of penstock (ft)	
	c. Average cross-sectional area of penstock (ft <sup>2</sup> )	
	d. Typical maximum head (vertical distance from the bottom of the penstock, at the gate, to the water level (ft)	
	e. Water supply (run-of-the-river or reservoir)	
	f. Water flow rate at typical maximum head (ft <sup>3</sup> /sec)	
	g. Average energy rate (kWh/acre-ft)	
	h. Estimated yearly energy production (kWh)	

### B-3. Induction Generator Information

1. Motoring Power (kW)	
2. Neutral Grounding Resistor (If Applicable)	
3. I22t or K (Heating Time Constant)	
4. Rotor Resistance	
5. Stator Resistance	
6. Stator Reactance:	
7. Rotor Reactance:	
8. Magnetizing Reactance:	
9. Short Circuit Reactance:	
10. Exciting Current:	
11. Temperature Rise:	
12. Frame Size:	
13. Design Letter:	
14. Reactive Power Required In Vars (No Load):	
15. Reactive Power Required In Vars (Full Load):	

16. Total Rotating Inertia, H:	_____ in Per Unit on KVA Base
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### C. Non-Synchronous Generator Information

#### C-1. Wind Generators Information

1. Number of generators to interconnect pursuant to Interconnection Request	
2. Average site elevation	
3. Field Volts	
4. Field Amperes	
5. Heating time constant (I22t)	
6. Rotor Resistance	
7. Stator Resistance	
8. Rotor Reactance	
9. Stator Reactance	
10. Exciting Current	
11. Temperature Rise	
12. Total Rotating inertia (H) (Per unit on 100 MVA Base)	
13. List of adjustable set- points for protective equipment or software*	
14. Generator type (e.g. GE doubly fed induction machine with back-to-back IGBT converters, or Micon induction generator)	
15. Generator voltage ride through capability	Min low-voltage threshold in percent to enable tripping _____ Max low-voltage duration in seconds to enable tripping _____
16. Provide voltage flicker data, if available, for the wind generator model to be installed specified in percent of total voltage output. The data may be provided at 25, 50, 75, and 100% of output or in the form of a curve with the Y-axis showing percent of flicker versus total output and the X-axis showing percent load output from at least 25% to 100% of total output.	
17. Provide voltage dropout limits expressed in voltage level versus time	
18. Provide frequency dropout limits expressed in frequency versus time	
19. Provide reactive power capability curve	
20. Provide a validated user-defined RMS positive sequence dynamic model	

21. Provide an appropriately parameterized generic library RMS positive sequence dynamic model, including a model block diagram of the inverter control system and plant control system, that corresponds to a model listed in a new table of acceptable models or a model otherwise approved by WECC
22. Provide a validated EMT model

**\*If available**

**C-2. Inverter-Based Parameters (e.g. Solar, Storage, Type 4 Wind Turbines)**

1. Number of inverters to be interconnected	
2. Inverter Manufacturer	
3. Inverter Model Name	
4. Inverter Model Number	
5. Inverter Version Number	
6. List of adjustable set points for the protective equipment or software	
7. Maximum design fault contribution current	
8. Harmonics Characteristics	
9. Start – up requirements	

**\*PSCAD models may be required/requested for inverter based resources as needed during the Generator Interconnection Process. If available please provide with application materials.**

**ATTACHMENT B TO APPENDIX 1 TO GIP  
INTERCONNECTION STUDY AGREEMENT (GENERATING FACILITY)**

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“Interconnection Customer,”) and the **Midcontinent Independent System Operator, Inc.**, a non-profit, non-stock corporation organized and existing under the laws of the State of Delaware, sometimes hereinafter referred to as the “Transmission Provider.” Interconnection Customer and Transmission Provider each may be referred to as a “Party,” or collectively as the “Parties.” Any capitalized term used herein but not defined herein shall have the meaning assigned to such term in the GIP and the GIA.

**RECITALS**

**WHEREAS**, Interconnection Customer is proposing to develop a Generating Facility or generating capacity addition to an Existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated \_\_\_\_\_; and

**WHEREAS**, Interconnection Customer desires to interconnect the Generating Facility with the Transmission System; and

**WHEREAS**, Interconnection Customer has requested Transmission Provider to perform Interconnection Studies and/or Provisional Interconnection Studies to assess interconnecting the proposed Generating Facility to the Transmission System, and of any Affected Systems;

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

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in the Transmission Provider's Commission-approved GIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed an Interconnection Study and/or an Provisional Interconnection Study consistent with the GIP in accordance with the Tariff, an Interconnection System Impact Study consistent with the GIP and an Interconnection Facilities Study consistent with the GIP, collectively referred to as the "Studies."
- 3.0 The Studies shall be based on the technical information provided by Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting, study results, or any other reason identified in the GIP. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as such information may reasonably become necessary consistent with Good Utility Practice during the course of the Studies and as designated in accordance with Section 3.3.3 of the GIP. If, after the designation of the Point of Interconnection pursuant to Section 3.3 of the GIP, Interconnection Customer modifies its Interconnection Request pursuant to Section 4.4, Transmission Provider may extend the time to complete The Studies.
- 4.0 **{Reserved}**
- 5.0 The Interconnection System Impact Study report shall provide the following information:
  - identification of any equipment short circuit capability limits exceeded as a result of the interconnection;

- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection (including as necessary, transient stability, both large and small signal, sub synchronous stability, dynamic voltage stability, mid and long-term stability, voltage flicker analyses, and excessive neutral current studies in accordance with Good Utility Practice), and
- preliminary description and non-binding, good faith, planning level estimated cost of facilities required to interconnect the Generating Facility to the Transmission System and to address the identified short circuit, instability, and power flow issues.

6.0 The Interconnection Facilities Study shall provide draft GIA appendices and supporting documentation, which will: (i) provide a description, estimated cost of (consistent with Attachment A), and schedule for required facilities to interconnect the Generating Facility to the Transmission System and (ii) address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.

7.0 Interconnection Customer shall provide deposits in the amount and timing outlined in Sections 3.3 of the GIP for the performance of the Studies.

Any difference between the deposit and the actual cost of The Studies shall be paid by or refunded to Interconnection Customer, as appropriate under Section 13.3 of the GIP.



- 8.0 Interconnection Customer may request all Base Cases and work papers associated with this Interconnection Request, subject to Transmission Provider provisions around acquiring Critical Energy Infrastructure Information.
- 9.0 Indemnity. To the extent permitted by law, each Party shall at all times indemnify, defend and hold the other Parties harmless from any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.
- 10.0 Limitation of Liability. Except with respect to the duties of defense and indemnity expressly provided in this Agreement, a Party shall not be liable to another Party or to any third party or other person for any damages arising out of actions under this Agreement, including, but not limited to, any act or omission that results in an interruption, deficiency or imperfection of Interconnection Service, except as provided in the Tariff. The provisions set forth in the Tariff shall be additionally applicable to any Party acting in good faith to implement or comply with its obligations under this Agreement, regardless of whether the obligation is preceded by a specific directive.
- 11.0 Miscellaneous. Except as otherwise provided herein, this Agreement shall include standard miscellaneous terms including, but not limited to, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations and the organizational nature of each Party. All of these provisions,

to the extent practicable, shall be consistent with the provisions of the GIP and the GIA.

**IN WITNESS THEREOF**, 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.

**Midcontinent Independent**  
**System Operator, Inc.**

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

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

Title: \_\_\_\_\_

**[Insert name of Interconnection Customer]**

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

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

Title: \_\_\_\_\_

## INTERCONNECTION STUDY AGREEMENT (INJECTION RIGHTS)

**THIS AGREEMENT** is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“MHVDC Connection Customer,”) and the **Midcontinent Independent System Operator, Inc.**, a non-profit, non-stock corporation organized and existing under the laws of the State of Delaware, sometimes hereinafter referred to as the “Transmission Provider.” MHVDC Connection and Transmission Provider each may be referred to as a “Party,” or collectively as the “Parties.” Any capitalized term used herein but not defined herein shall have the meaning assigned to such term in the GIP and the GIA.

### RECITALS

**WHEREAS**, MHVDC Connection Customer is proposing to develop an MHVDC Transmission Line or capacity addition to an existing MHVDC Transmission Line consistent with the Interconnection Request submitted by MHVDC Connection Customer dated \_\_\_\_\_; and

**WHEREAS**, MHVDC Connection Customer desires to interconnect the MHVDC Transmission Line with the Transmission System; and

**WHEREAS**, MHVDC Connection Customer has requested Transmission Provider to perform Interconnection Studies and/or Provisional Interconnection Studies to assess interconnecting the proposed MHVDC Transmission Line to the Transmission System, and of any Affected Systems;

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

1.0 When used in this Agreement, with initial capitalization, the terms specified shall

have the meanings indicated in the Transmission Provider's Commission-approved GIP.

- 2.0 MHVDC Connection Customer elects and Transmission Provider shall cause to be performed an Interconnection Study and/or an Provisional Interconnection Study consistent with the GIP in accordance with the Tariff, an Interconnection System Impact Study consistent with the GIP and an Interconnection Facilities Study consistent with the GIP, collectively referred to as the "Studies."
- 3.0 The Studies shall be based on the technical information provided by MHVDC Connection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting, study results, or any other reason identified in the GIP. Transmission Provider reserves the right to request additional technical information from MHVDC Connection Customer as such information may reasonably become necessary consistent with Good Utility Practice during the course of the Studies and as designated in accordance with Section 3.3.3 of the GIP. If, after the designation of the Point of Interconnection pursuant to Section 3.3 of the GIP, MHVDC Connection Customer modifies its Interconnection Request pursuant to Section 4.4, Transmission Provider may extend the time to complete The Studies.
- 4.0 **{Reserved}**
- 5.0 The Interconnection System Impact Study report shall provide the following information:
  - identification of any equipment short circuit capability limits exceeded as a result of the interconnection;
  - identification of any thermal overload or voltage limit violations resulting

from the interconnection;

- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection (including as necessary, transient stability, both large and small signal, sub synchronous stability, dynamic voltage stability, mid and long-term stability, voltage flicker analyses, and excessive neutral current studies in accordance with Good Utility Practice), and
- preliminary description and non-binding, good faith, planning level estimated cost of facilities required to interconnect the MHVDC Transmission Line to the Transmission System and to address the identified short circuit, instability, and power flow issues.

6.0 The Interconnection Facilities Study shall provide draft TCA appendices and supporting documentation, which will: (i) provide a description, estimated cost of (consistent with Attachment A), and schedule for required facilities to interconnect the MHVDC Transmission Line to the Transmission System and (ii) address the short circuit, instability, and power flow issues identified in the Interconnection System Impact Study.

7.0 MHVDC Connection Customer shall provide deposits in the amount and timing outlined in Sections 3.3 of the GIP for the performance of the Studies.

Any difference between the deposit and the actual cost of The Studies shall be paid by or refunded to MHVDC Connection Customer, as appropriate under Section 13.3 of the GIP.

8.0 MHVDC Connection Customer may request all Base Cases and work papers associated with this Interconnection Request, subject to Transmission Provider

provisions around acquiring Critical Energy Infrastructure Information.

- 9.0 Indemnity. To the extent permitted by law, each Party shall at all times indemnify, defend and hold the other Parties harmless from any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's performance, or non-performance of its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.
- 10.0 Limitation of Liability. Except with respect to the duties of defense and indemnity expressly provided in this Agreement, a Party shall not be liable to another Party or to any third party or other person for any damages arising out of actions under this Agreement, including, but not limited to, any act or omission that results in an interruption, deficiency or imperfection of Interconnection Service, except as provided in the Tariff. The provisions set forth in the Tariff shall be additionally applicable to any Party acting in good faith to implement or comply with its obligations under this Agreement, regardless of whether the obligation is preceded by a specific directive.
- 11.0 Miscellaneous. Except as otherwise provided herein, this Agreement shall include standard miscellaneous terms including, but not limited to, representations, disclaimers, warranties, governing law, amendment, execution, waiver, enforceability and assignment, that reflect best practices in the electric industry, that are consistent with regional practices, Applicable Laws and Regulations and the organizational nature of each Party. All of these provisions, to the extent practicable, shall be consistent with the provisions of the GIP and the GIA.

**IN WITNESS THEREOF**, 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.

**Midcontinent Independent  
System Operator, Inc.**

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

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

Title: \_\_\_\_\_

**[Insert name of MHVDC Connection Customer]**

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

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

Title: \_\_\_\_\_

**ATTACHMENT C TO APPENDIX 1: UNIVERSAL NON-DISCLOSURE AND  
CONFIDENTIALITY AGREEMENT**

**PROJECT NO. \_\_\_\_\_**

This Universal Non-Disclosure and Confidentiality Agreement (the “Agreement”) is entered into on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ and effective as of the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ (the “Effective Date”), by and between Midcontinent Independent System Operator, Inc. (“MISO”) and \_\_\_\_\_, (“Company”) whose principal offices are located at \_\_\_\_\_. MISO and Company each may be referred to individually as a “Party” or collectively as the “Parties.”

WHEREAS, MISO is prepared to disclose confidential information under this Agreement to Company in connection with MISO’s business with, or possible engagement of, Company (the “Purpose”);

WHEREAS, Company represents that it desires to receive confidential information pursuant to this Agreement; and,

WHEREAS, MISO and Company desire to set forth in writing the terms and conditions of their agreement.

NOW THEREFORE, in consideration of the mutual promises, covenants, representations and agreements contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

**1.0 Confidential Information.** “Confidential Information” as used in this Agreement means all information disclosed to Company by MISO or its employees, agents, contractors, representatives, consultants and advisors (collectively “Disclosing Party”) in connection



with the Purpose. Confidential Information includes, without limitation, (i) any and all business, technical, marketing, financial or other information, whether in electronic, oral or written form; (ii) trade secrets, business plans, techniques, methods, or systems, data, know-how, formulae, compositions, designs, sketches, mock-ups, prototypes, photographs, charts, graphs, forms, documents, drawings, samples, inventions, ideas, research and development, customer and vendor lists (including, without limitation, the identity, characteristics, contact persons, product and service needs thereof), rates, price lists, computer software programs and systems, financial statements, and budgets; (iii) all memoranda, summaries, notes, analyses, compilations, studies or those portions of other documents prepared by Company to the extent they contain or reflect such information of, or the contents of discussions with the Disclosing Party (“Company’s Material”), including the contents or existence of discussions or negotiations related to the Purpose; (iv) information not generally known or readily ascertainable; (v) information that provides a competitive advantage for Disclosing Party; and (vi) information that is marked “Confidential” or nonpublic information which under the circumstances surrounding disclosure a reasonable person would conclude should be treated as confidential. Confidential Information shall not include information that (a) is or becomes part of the public domain other than as a result of disclosure by Company, (b) becomes available to Company on a non-confidential basis from a source other than Disclosing Party, provided that, to the best of Company’s knowledge, such source is not prohibited from transmitting such information by a contractual, legal, or other obligation, or (c) was in Company’s possession prior to disclosure of the same by Disclosing Party.

- 2.0 Non-Use; Protection and Dissemination of Confidential Information.** Company agrees not to disclose, discuss, use, reproduce, duplicate, distribute, copy, reconstruct or in any way communicate, directly or indirectly, the Confidential Information for purposes other than in connection with the Purpose. Company shall not disclose, discuss, use, reproduce, duplicate, distribute or in any way communicate, directly or indirectly, the Confidential Information to any other party and will use all reasonable efforts to protect the confidentiality of such information. Company will require that Company’s employees, officers, directors, agents, contractors, representatives, consultants and

advisors who need to have access to such Confidential Information in order to assist Company in connection with the Purpose (1) are aware of the Company's confidentiality obligation hereunder, and (2) agree to be bound by such confidentiality obligations. Company shall notify Disclosing Party immediately of any loss, misuse, or misappropriation of any Confidential Information of which Company becomes aware.

**3.0 Ownership and Return.** All Confidential Information, including Company's Material, shall be and remain the property of Disclosing Party, and no right or license is granted to Company with respect to any Confidential Information. No transfer or creation of ownership rights in any intellectual property comprising Confidential Information is intended or shall be inferred by the disclosure of Confidential Information by Disclosing Party, and any and all intellectual property comprising Confidential Information disclosed and any derivations thereof, shall continue to be the exclusive intellectual property of Disclosing Party. Upon the termination by any Party of the Purpose, or sooner if so requested, Company agrees to immediately return all Confidential Information, including Company's Material, to Disclosing Party or to destroy all Confidential Information, including all copies of the same, however, Company shall not be required to destroy Confidential Information that has become embedded in Company's planning models. Upon request, the fact of any such destruction shall be certified in writing to Disclosing Party by Company. Nothing in this Agreement obligates Disclosing Party to disclose any information to Company or creates any agency or partnership relation between them.

**4.0 Compliance and Protection of Confidential Information.** Company represents and warrants that it has practices and procedures adequate to protect against the unauthorized release of Confidential Information received. Company must educate its employees, agents, and assigns in the provisions of this Agreement and provide to Disclosing Party upon request any information necessary to determine compliance with the terms of this Agreement.

**5.0 Indemnification.** To the extent permitted by law, Company agrees to indemnify, hold harmless and defend MISO, its employees, principals (owners, partners, shareholders or holders of an ownership interest, as the case may be), agents, contractors, representatives,

consultants and/or advisors against any and all liability, loss, costs, damages, expenses, claims or actions, joint or several, arising out of or by reason of any breach of this Agreement by Company and/or Company's employees, agents, contractors, representatives or consultants, or arising out of or by reason of any act or omission of Company and/or Company's employees, agents, contractors, representatives or consultants in the execution, performance, or failure to adequately perform their obligations under this Agreement. For purposes of this Section, to "indemnify" means to defend and pay all expenses (including reasonable attorneys' fees) and satisfy all judgments (including costs and reasonable attorneys' fees) which may be incurred or rendered against MISO, its employees, principals (owners, partners, shareholders or holders of an ownership interest, as the case may be), agents, contractors, representatives, consultants and/or advisors.

- 6.0 Compelled Disclosure.** If Company is requested or required by legal or administrative process to disclose any Confidential Information, Company shall promptly notify Disclosing Party of such request or requirement so that Disclosing Party may seek an appropriate protective order or other relief. In any case, Company will (a) disclose only that portion of the Confidential Information that its legal counsel advises is required to be disclosed, (b) use its reasonable efforts to ensure that such Confidential Information is treated confidentially, including seeking an appropriate protective order, and (c) notify Disclosing Party as soon as reasonably practicable of the items of Confidential Information so disclosed.
- 7.0 Remedies.** The Parties acknowledge that remedies at law may be inadequate to protect Disclosing Party against any actual or threatened breach of this Agreement by Company, and, without prejudice to any other rights and remedies otherwise available to Disclosing Party, agree to the immediate granting of preliminary and final injunctive relief (without prior notice and without posting any bond) in favor of Disclosing Party to enjoin and restrain any breach or violation, either actual or anticipatory, of this Agreement.
- 8.0 Purpose.** None of the Parties will be under any legal obligation of any kind whatsoever with respect to the Purpose by virtue of this Agreement, except for the matters

specifically agreed to herein. No representation or warranty is made by the Disclosing Party as to the accuracy or completeness of any information provided to the Company.

**9.0 Term and Termination.** Company's obligations under this Agreement shall be effective on the date set forth above and shall be perpetual, notwithstanding any expiration, cancellation or termination of this Agreement. Upon termination of the Agreement, Company shall either promptly (1) deliver or cause to be delivered to Disclosing Party or (2) certify to the Disclosing Party the destruction of, all Confidential Information, including all copies of the Confidential Information in Company's possession or control including, without limitation, originals and copies of documents, customer lists, prospect lists, price lists, operations manuals, and all other documents reflecting or referencing the Confidential Information, as well as all other materials furnished to or acquired by Company to facilitate the Purpose of the Agreement.

**10.0 Agency.** This Agreement is binding on Company, its employees, agents, contractors, representatives, consultants, advisors, successors and assigns. In the event of a dispute regarding liability for breach of this Agreement, common law agency principles apply.

**11.0 Waiver.** No waiver of any of the provisions of this Agreement will be deemed or will constitute a waiver of any other provision, whether or not similar, nor will any waiver constitute a continuing waiver. No waiver will be binding unless executed in writing by an authorized representative of the Party making the waiver. The failure of either Party in any one or more instances to insist upon strict performance of any of the terms and conditions of this Agreement will not be construed as a waiver or relinquishment, to any extent, of the right to assert or rely upon any such terms or conditions on any future occasion.

**12.0 Modification.** This Agreement may not be amended except in a writing signed by authorized representatives of both Parties.

**13.0 Governing Law.** Indiana law shall govern the interpretation and implementation of the Agreement and the resolution of any dispute between the parties regarding the effect of the Agreement without giving effect to principles of conflicts of law, and shall supplement, but not replace, the Uniform Trade Secrets Act as enacted by the State of Indiana. Each Party hereby submits itself for the sole purpose of this Agreement and any

controversy arising hereunder to the exclusive jurisdiction of the federal or state courts located in the State of Indiana serving the counties of Hamilton and Marion, and any courts of appeal therefrom, and waives any objection (on the grounds of lack of jurisdiction, or forum not convenient or otherwise) to the exercise of such jurisdiction over it by any such courts.

- 14.0 Severability and Survival.** Should any clause, portion or paragraph of this Agreement be unenforceable or invalid for any reason, such unenforceability or invalidity will not affect the enforceability or validity of the remainder of this Agreement, and any court having jurisdiction is specifically authorized and encouraged by the Parties to hold inviolate all portions of this Agreement that are valid and enforceable without consideration of any invalid or unenforceable portions hereof.
- 15.0** The headings of the sections in this Agreement are for the purposes of convenient reference only and are not intended to be part of this Agreement, or to limit or affect the meaning or interpretation of any of the terms hereof.
- 16.0 Assignment and Succession.** This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of the Parties hereto. Any successor to or assignee of MISO shall assume its rights and obligations under this Agreement with or without notice to Company. Company may not assign its rights hereunder without the written permission of MISO.
- 17.0 Attorney's Fees.** If Company breaches or defaults in the performance of any of the covenants, agreements, representations, or warranties described in this Agreement, then in addition to any and all of the rights and remedies which MISO may have against Company, Company will also be liable to and pay MISO its court costs and reasonable attorney's fees incurred in enforcing MISO's covenants, agreements, representations and warranties herein.
- 18.0 Employees Bound by Agreement.** The representative executing this Agreement hereby acknowledges and agrees that he/she is duly authorized to execute this Agreement on behalf of Company and that this Agreement shall bind and be enforceable by and against the employees, agents, or consultants of Company. The authorized representative of Company further acknowledges and agrees that only those employees who are listed on

the attached Appendix A incorporated herein shall be authorized to receive Confidential Information directly from MISO and that he/she will notify MISO in writing of any modification to Appendix A prior to releasing Confidential Information to those employees listed on Appendix A.

- 19.0 Notices.** All notices and other communications hereunder shall be in writing and shall be deemed given if delivered personally or by commercial delivery service, or mailed by registered or certified mail (return receipt requested) or sent via facsimile (with acknowledgment of complete transmission) to the parties at the following addresses (or at such other address for a party as shall be specified by like notice):

if to MISO, to: 720 West City Center Drive  
Carmel, Indiana 46032  
Attn: General Counsel  
Facsimile No.: (317) 249-5912

if to \_\_\_\_\_, to: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Facsimile No.: \_\_\_\_\_

- 20.0 Entire Agreement.** The Parties agree that this Agreement, including Appendix A incorporated herein and as modified, constitute their entire agreement with respect to the subject matter hereof and that it supersedes any prior agreements or understandings between them, whether written or oral.

Company acknowledges that it has read the Agreement, had the opportunity to discuss it with counsel, and is executing it with an understanding of its provisions. This Agreement may be executed in two or more counterparts, each of which will be deemed an original and all of which together will constitute one and the same document.

*remainder of page left intentionally blank*

[signatures appear on following page]

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed,  
effective as of the day, month and year written above.

**Midcontinent Independent System Operator, Inc.**

**Midcontinent Independent System  
Operator, Inc.**

**Company:**

\_\_\_\_\_

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

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

Print name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

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

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

Phone: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Fax: \_\_\_\_\_



**APPENDIX A TO ATTACHMENT C  
TO MISO UNIVERSAL NON-DISCLOSURE AND  
CONFIDENTIALITY AGREEMENT**

Company, \_\_\_\_\_ Employees, Agents, or Consultants  
subject to Confidentiality Agreement as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_:

	<u>Print Name</u>	<u>Title</u>	<u>E-mail Address</u>	<u>Transmission/Reliability or Merchant/Market, or N/A*)</u>
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

(Attach Additional Pages If Necessary)

\* An individual who is an employee of a Transmission Provider (as defined in 18 C.F.R. § 358.3(k) may not be subject to the FERC functional separation requirements (*i.e.*, “N/A” designation) under certain circumstances in accordance with FERC Order No. 717 and the FERC regulations therein adopted. If such an individual would receive information subject to this Amendment, the copy of this Appendix A executed for that individual must be accompanied by written confirmation from Company stating the following: (1) the designated individual is not engaged in transmission or marketing functions (*i.e.*, day-to-day duties and responsibilities for planning, directing, organizing or carrying out operations); (2) the individual has received training on the Standards of Conduct; and (3) the individual undertakes

to comply with such Standards, including in particular the “no conduit rule” set forth in 18 C.F.R. § 358.6.

NOTE: Any changes to the information on this Appendix A must be submitted electronically to the Transmission Provider in the manner specified by the Generator Interconnection Business Practices Manual (BPM-015).

**ATTACHMENT D TO APPENDIX 1: CRITICAL ENERGY INFRASTRUCTURE**  
**INFORMATION GENERAL NON-DISCLOSURE AGREEMENT**

WHEREAS, Midcontinent Independent System Operator, Inc. (“MISO”) is prepared to disclose Critical Energy Infrastructure Information (“CEII”) under this Critical Energy Infrastructure Information General Non-Disclosure Agreement (“NDA”) to \_\_\_\_\_ (“Recipient”), an individual (employee, manager or officer) employed with \_\_\_\_\_, in connection with a legitimate need for the CEII (the “Purpose”) (MISO and Recipient may be collectively referred to as “Parties” or singly as “Party”);

WHEREAS, Recipient represents that he/she has a legitimate purpose for requesting the CEII pursuant to this Agreement; and,

WHEREAS, MISO and Recipient desire to set forth in writing the terms and conditions of their agreement.

NOW THEREFORE, in consideration of the mutual promises, covenants, representations and agreements contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Definitions - For purposes of these provisions:

- a. The term “CEII” shall include specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure that: (1) relates details about the production, generation, transportation, transmission, or distribution of energy; (2) could be useful to a person in planning an attack on critical infrastructure; (3) is exempt from mandatory disclosure under the Freedom of Information Act, 5 U.S.C. 552 (2000); and (4) does not simply give the general location of the critical infrastructure. Narratives such as the descriptions of facilities and processes are generally not CEII unless they describe specific engineering and design details of critical infrastructure.

- b. The term “Recipient” means someone who has executed this NDA and is approved to receive CEII.
2. A Recipient certifies that it is his/her understanding that access to CEII is provided pursuant to the terms and restrictions of the provisions in this NDA, and that such Recipient has read the provisions and agrees to be bound by them.
3. Recipient may only discuss CEII with another Recipient of the identical CEII. A Recipient may check with MISO to determine whether another individual is a Recipient of the identical CEII.
4. A Recipient of CEII may use CEII as foundation for advice provided to others, but may not disclose CEII to another individual unless that individual is an approved Recipient of the same CEII.
5. A Recipient will not knowingly use CEII for an illegal or non-legitimate purpose.
6. All CEII shall be maintained by Recipient in a secure place. Access to those materials shall be limited to other Recipients of the identical material. Recipients may make copies of CEII, but such copies become CEII and subject to these same procedures. Recipients may make notes of CEII, which shall be treated as CEII notes if they contain CEII.
7. Recipients must return CEII to MISO or destroy CEII within fifteen days of a written request by MISO to do so, except that CEII notes may be retained in accordance with Paragraph 6, above. Within such time period, each Recipient, if requested to do so, shall also submit to MISO an affidavit stating that, to the best of his or her knowledge, all CEII has been returned or destroyed and that CEII notes have either been returned, destroyed or are being maintained by Recipient in accordance with Paragraph 6.

8. The Recipient remains bound by these provisions unless MISO rescinds the provisions or a court of competent jurisdiction finds that the information does not qualify as CEII.
9. MISO may reasonably audit the Recipient's compliance with this NDA.
10. Violation of this NDA will be reported to the Federal Energy Regulatory Commission (the "Commission") which in turn may result in criminal or civil sanctions against the Recipient.
11. I hereby certify my understanding that access to CEII is provided to me pursuant to the terms and restrictions of the above CEII provisions, that I have been given a copy of and have read the provisions, and that I agree to be bound by them. I understand that the contents of the CEII, any notes or other memoranda, or any other form of information that copies or discloses CEII shall not be disclosed to anyone other than another person who has been granted access to these same materials. I acknowledge that a violation of this NDA may result in criminal or civil sanctions, including the suspension of my ability to appear before the Commission pursuant to 18 C.F.R. § 385.2102. I agree that my compliance with this NDA is subject to reasonable audit by MISO.

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

Signature

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Representing: \_\_\_\_\_

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

**ATTACHMENT E TO APPENDIX 1: SITE CONTROL DEMONSTRATION**

Midcontinent Independent System Operator, Inc.  
Attn: Manager, Queue Administration  
720 City Center Drive  
Carmel, IN 46032

**[Date]**

Subject: Proof of Site Control Affidavit

1. The undersigned (“Affiant”) is an officer or an agent of the Interconnection Customer for the Interconnection Request associated with **[Project Name]**.
2. Affiant affirms that all of the Site Control documents for **[Project Name]** required pursuant to Section 7.2 of Attachment X of the MISO Tariff are submitted to MISO in their entirety.
3. Affiant has reviewed all such Site Control documents submitted for **[Project Name]** and has personal knowledge of its contents.
4. Affiant hereby affirms that the Interconnection Customer **[PLEASE SELECT FROM THE FOLLOWING:**  
\_\_\_\_ **(1) possesses Site Control for (Project Name) in accordance with Sections 7.2.1.1 of this GIP; OR**  
\_\_\_\_ **(2) is presently subject to regulatory restrictions that preclude Interconnection Customer from obtaining Site Control for (Project Name) pursuant to Section 7.2.1.2 of this GIP].**
5. **[TO THE EXTENT THAT REGULATORY RESTRICTIONS PRECLUDE SITE CONTROL PURSUANT TO GIP SECTION 7.2.1.2]** In accordance with Section 7.2.1.2 of the GIP, attached hereto the affiant provides a description of conditions that

must be met in order to satisfy the regulatory restrictions and the anticipated time by which the Interconnection Customer expects to satisfy the regulatory restrictions.

Sincerely,

**[Affiant signature]**

**[Affiant printed name]**

**[Affiant title]**

**[Affiant company name]**