COORDINATION AGREEMENT

BY and BETWEEN

MIDCONTINENT INDEPENDENT SYSTEM OPERATOR INC. (MISO)



AND

INDEPENDENT ELECTRICITY SYSTEM OPERATOR (IESO)



EFFECTIVE DATE: "July 22, 2016"

THIS AGREEMENT made this 22nd, day of July, 2016.

BETWEEN:

INDEPENDENT ELECTRICITY SYSTEM OPERATOR, a not-for-profit, non-share capital corporation established pursuant to the *Electricity Act*, (Hereinafter called the "IESO")

OF THE FIRST PART

- And -

MIDCONTINENT INDEPENDENT SYSTEM OPERATOR, INC., a not-for-profit corporation organized under the laws of Delaware, (Hereinafter called "MISO")

OF THE SECOND PART

WHEREAS, MISO and the IESO are sometimes hereinafter referred to as the "Parties" or individually as a "Party"; and

WHEREAS, the IESO Balancing Authority is a NERC registered Balancing Authority; and

WHEREAS, MISO is a NERC registered Balancing Authority; and

WHEREAS, both *Parties* desire to coordinate interconnected operation to maintain reliability for both the power systems of the province of Ontario, Canada, and power systems that are under the authority of MISO, recognizing the *Parties*" desire to maximize the reliability of their respective electric power systems for their mutual advantage in order to achieve, as a result of coordinated operation, benefits to their respective power systems and thereby to the public serviced by each; and

WHEREAS, related to the *Interconnection Facilities*:

A. MISO is the *Reliability Coordinator*, the *Transmission Service Provider*, the *Balancing Authority, and* the *Interchange Coordinator* across its entire footprint. MISO is responsible for the secure operation of the Michigan-Ontario Interconnection in accordance with that certain agreement between International Transmission Company and MISO under Appendix I of the MISO Tariff and is responsible for the secure operation of the Manitoba-Ontario Interconnection, and the Minnesota-Ontario Interconnection, all in compliance with and subject to (where applicable) the terms of the respective Presidential Permits issued by the U.S. Department of Energy governing the Michigan and Minnesota interconnections, and in compliance with the requirements and guidelines as set forth by *NERC*, and as such MISO has the power and authority to enter into this *Agreement* and perform its obligations under it;

- **B.** The IESO is the *Reliability Coordinator*, the *Transmission Service Provider*, the *Balancing Authority*, the *Interchange Coordinator*, the *Transmission Operator and* the market operator for the Province of Ontario pursuant to and subject to the restrictions of the *Electricity Act*, and as such has the power and authority to enter into this *Agreement* and perform its obligations under it;
- **C.** MISO *Transmission System* and the *Ontario Transmission System* or the *IESO* controlled grid are interconnected at certain points of *Interconnection* as more specifically described in this *Agreement* and the *Parties* wish to record their agreement as to the operational and other matters addressed herein and pertaining to the interconnected *Transmission Systems*; and

WHEREAS, the *Parties* desire to manage the reliability aspects of their interconnected operations by developing, administering and implementing practices, procedures and information relating to security coordination and power system operation that will be managed and approved by a committee formed under this *Agreement*; and

WHEREAS, the *Parties* recognize the Interconnection Agreement between the IESO and Minnesota Power and its obligations; and

WHEREAS, the *Parties* recognize the Interconnection Agreement between Ontario Hydro and The Manitoba Hydro-Electric Board and its obligations;

NOW THEREFORE THIS *AGREEMENT* **WITNESSES THAT** in consideration of the mutual agreements and obligations between the *Parties* and for other good and valuable consideration MISO and the IESO agree as follows:

1.0: DEFINITIONS

In this *Agreement*, the following words and terms shall have the meanings (such meanings to be equally applicable to both the singular and the plural forms) ascribed to them in this Article 1:

"Adequacy" means the ability of the electric system to supply electrical demand and energy requirements at all times, taking into account scheduled and unscheduled outages of system elements.

"Agreement" means this Agreement and the Schedule(s) attached hereto and incorporated herein.

"Balancing Authority (BA)" shall mean the responsible entity that maintains load-interchangegeneration balance and supports Interconnection frequency in real time.

"Balancing Authority Operator" means the person responsible for the secure operation of a Balancing Authority as set forth by NERC.

"Coordination Committee" means the jointly constituted MISO and IESO committee established to administer the terms and provisions of this *Agreement* pursuant to Article 7.

"Delivery Point" means the border point at each of the several points of direct Interconnection between the Ontario Balancing Authority and MISO Balancing Authority.

"Dispute" has the meaning attributed thereto in Article 12.0.

"Effective Date" means the reference date of this Agreement as shown on the first page.

"Electricity Act" means the Electricity Act, 1998 (Ontario), as amended from time to time.

"Emergency" means any abnormal system condition that requires remedial action to prevent or limit loss of transmission or generation facilities that could adversely affect the *Reliability* of the electricity system.

"Emergency Energy" means energy supplied from Operating Reserve or electrical generation available for sale in Ontario or in the MISO Balancing Authority areas or available from another Balancing Authority.

"Force Majeure" means an event of force majeure as described in Section 13.1.

"Good Utility Practice" means any of the practices, methods and acts engaged in or approved by a significant portion of the North American electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgement in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result consistent with good business practices, *Reliability*, safety and expedition. *Good Utility Practice* is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted by *NERC*.

"IESO controlled grid" means the Ontario Transmission System with respect to which, pursuant to operating agreements, the IESO has authority to direct operations.

"Intentional Wrongdoing" means an act or omission taken or omitted by a Party with knowledge or intent that injury or damage could reasonably be expected to result.

"Interchange Coordinator" means the entity that authorizes implementation of valid and balanced Interchange Schedules between Balancing Authority Areas, and ensures communication of Interchange information for reliability assessment purposes, as set forth in NERC standards.

"Interconnection" means a connection between two or more individual *Transmission Systems* that normally operate in synchronism and have interconnecting *Interties*.

"ISO Agreement" means the agreement that establishes the Midcontinent Independent System Operator, Inc.

"ISO/TO Agreement" means the agreement that establishes the terms and conditions under which the *Transmission Owners* transferred to MISO *Operational Control* over designated transmission facilities.

"ISO Services Tariff" means the MISO Energy and Operating Reserves Tariff.

"Local Balancing Authority" or "LBA" means an operational entity which is:

- (i) responsible for compliance to NERC for the subset of NERC Balancing Authority Reliability Standards defined for its local area within the MISO Balancing Authority Area, and
- (ii) a party (other than the MISO) to the Balancing Authority Amended Agreement which, among other things, establishes the subset of NERC Balancing Authority Reliability Standards for which the LBA is responsible.

"Market Participant" means an entity that, for its own account, produces sells, and/or purchases for its own consumption or resale capacity, energy, energy derivatives and ancillary services in the wholesale power markets. Market Participants include transmission service customers, power exchanges, load serving entities, loads, holders of energy derivatives, generators and other power suppliers and their designated agents.

"Metered Quantity" means apparent power, reactive power, active power, with associated time tagging and any other quantity that may be measured by a Party's Metering Equipment and that is reasonably required by either Party for Security reasons or revenue requirements.

"Metering Equipment" means the potential transformers, current transformers, meters, interconnecting wiring and recorders used to meter any Metered Quantity.

"MISO Transmission System" for the purpose of this Agreement means the Transmission System, as that term is defined in the MISO Energy and Operating Reserves Tariff.

"Mutual Benefits" as described in Article 3, means the transient and steady-state support that the integrated generation and *Transmission Systems* that MISO and Ontario provide to each other inherently by virtue of being interconnected. The term *Mutual Benefits* does not mean incidental benefits that may accrue from inadvertent flows of energy across the *Transmission System* of one Party or the other.

"NEB" – means the National Energy Board of Canada.

"NERC" – means the North American Electric Reliability Council or its successor organization.

[&]quot;Interconnection Facilities" means the interconnection facilities described in Schedule A.

[&]quot;Intertie" means a transmission line that forms part of an Interconnection.

"Ontario Market Rules" means the rules made from time to time, and any and all amendments thereto or replacements thereof, pursuant to Section 32 of the *Electricity Act*, and all policies, procedures, and guidelines contemplated thereby.

"Ontario Transmission System" means the integrated transmission facilities located in the Province of Ontario including Interconnection Facilities, except for distribution systems operating at a nominal voltage level of less than 50 kV as defined in the *Electricity Act*.

"Operating Instructions" means the operating procedures, steps, and instructions for the operation of the Interconnection Facilities established from time to time by the Coordination Committee in accordance with Schedule B of this Agreement and includes changes from time to time by the Coordination Committee to such established procedures, steps and instructions.

"Operational Control" means Security monitoring, adjustment of generation and transmission resources, coordinating and approval of changes in transmission status for maintenance, determination of changes in transmission status for Reliability, coordination with other Balancing Authorities, voltage reductions and load shedding, except that each legal owner of generation and transmission resources continues to physically operate and maintain its own facilities.

"Operating Reserve" means generation capacity or load reduction capacity which can be called upon on short notice by either *Party* to replace scheduled energy supply which is unavailable as a result of an unexpected outage or to augment scheduled energy as a result of unexpected demand or other contingencies.

"Parties" means MISO and IESO and Party means either one of them.

"Reliability" means the degree of performance of the bulk electric system that results in electricity being delivered within Reliability Standards and in the amount desired. Electric system Reliability can be addressed by considering two basic and functional aspects of the electric systems: Adequacy and Security.

"Reliability Coordinator" means the person or persons delegated to perform Interconnection security functions as set forth by NERC.

"Reliability Standards" means the criteria, standards and requirements relating to Reliability established by a Standards Authority.

"Schedule" means a schedule attached to this Agreement and all amendments, supplements, replacements and additions hereto.

"Security" means the ability of the electric system to withstand sudden disturbances including, without limitation, electric short circuits or unanticipated loss of system elements.

"System Operating Limits" – means operating electricity system voltage limits, stability limits and thermal ratings.

"Standards Authority" means the North American Electric Reliability Corporation, any successor thereof, or any other agency or body that recommends standards or criteria to either *Party* relating to the *Reliability* of *Transmission Systems*.

"Transmission Operator" means the entity that operates and maintains the transmission facilities and equipment, as set forth in NERC standards.

"Transmission Owner" means an entity that owns a Transmission System.

"Transmission Service Provider" means an entity that provides transmission service as set forth in NERC standards.

"Transmission System" means a system for transmitting electricity, and includes any structures, equipment or other facilities used for that purpose.

2.0: SCOPE OF AGREEMENT

2.1 Purpose of this Agreement

This *Agreement* provides for the reliable operation of the interconnected *Transmission Systems* of MISO and Ontario in accordance with the requirements of the *Standards Authority*.

This *Agreement* establishes a structure and framework for the following functions related to the *Reliability* of interconnected operations between the *Parties*:

- (a) developing and issuing *Operating Instructions* and *Security Limits*;
- (b) coordinating operation of the *Transmission Systems*;
- (c) developing and adopting operating criteria and standards;
- (d) operating performance review of the *Interconnection Facilities*;
- (e) considering matters of transmission service and access;
- (f) implementing the respective requirements of each of *NERC* and appropriate regional coordinating council with respect to the *MISO Transmission System and Ontario Transmission System*;
- (g) providing assistance in an *Emergency* and system restoration.

The *Parties* shall, to the maximum extent they deem consistent with the safe and proper operation of their respective *Transmission Systems* and necessary coordination with other interconnected systems, and with the furnishing of dependable and satisfactory service to their own customers, operate their *Transmission Systems* in accordance with the following procedures and principles.

3.0: MUTUAL BENEFITS

3.1 No Charge for Mutual Benefits of Interconnection

MISO Transmission System and Ontario Transmission System, by virtue of being connected with a much larger Interconnection, share Mutual Benefits such as transient and steady-state support. IESO and MISO shall not charge one another for Mutual Benefits.

3.2 Maintenance of Mutual Benefits

The *Parties* shall endeavor to operate or direct the operation of the *Interconnection* to realize the *Mutual Benefits*. The *Parties* recognize circumstances beyond their control, such as a result of operating configurations, contingencies, maintenance, or actions by third parties, may result in a reduction of *Mutual Benefits*.

4.0: INTERCONNECTED OPERATION

4.1 Obligation to Remain Interconnected

The *Parties* shall at all times during the term of this *Agreement* operate or direct the operation of their respective *Transmission Systems* so that they remain interconnected except:

- (a) during the occurrence of an event of *Force Majeure* which renders a *Party* unable to remain interconnected:
- (b) when an *Interconnection* is opened in accordance with the terms of an *Operating Instruction*;
- (c) when an *Interconnection* is opened to avoid an imminent risk of equipment failure, or of danger to personnel or the public, or a risk to the environment, or risk to system *Security* or *Reliability* of a *Transmission System*, which cannot be avoided by *Good Utility Practice*;
- (d) when an *Interconnection* is opened to comply with operating requirements imposed by or incorporated into the U.S. D.O.E Presidential Permit or *NEB* export permits applicable to a facility that is part of an *Interconnection*; or
- (e) during planned maintenance where notice has been given in accordance with outage procedures as implemented by the *Coordination Committee*.

4.2 Radial Facility Operation

Any radial *Interconnection Facilities* shall be operated with the normally-open points as described in *Schedule* A, except by mutual agreement of the *Parties*.

4.3 Notification of Circumstances

In the event that an *Interconnection Facility* is opened or if the *Interconnection Facility* transfer capability is changed, the *Party* which plans to initiate the opening of, or the transfer capability change to the *Interconnection Facility* shall immediately provide the other *Party* with notification indicating the circumstances of the opening or transfer capability change and expected restoration time, in accordance with procedures implemented by the *Coordination Committee*.

4.4 Compliance with Decisions of the Coordination Committee Direction.

MISO shall direct the operation of the MISO Transmission System and the IESO shall direct the operation of the IESO controlled grid in accordance with the obligations of their respective tariffs, rules and standards and applicable directions of the Coordination Committee that conform with their respective tariffs, rules and standards, except where prevented by Force Majeure. The Coordination Committee direction includes decisions and jointly developed and approved Operating Instructions. If decisions of the Coordination Committee do not anticipate a particular circumstance, the Parties shall act in accordance with Good Utility Practice.

4.5 Control and Monitoring

Each *Party* shall provide or arrange for 24-hour control and monitoring of their portion of the *Interconnection Facilities*.

4.6 Reactive Transfer

In the absence of a commercial agreement, each *Party*, unless mutually agreed otherwise, shall endeavor to provide its own reactive power supply such that there is no intentional net transfer of reactive power across the *Interconnection*.

4.7 Inadvertent

Inadvertent power transfers on all *Interconnection Facilities* shall be controlled and accounted for in accordance with the standards and procedures incorporated into applicable U.S. DOE Presidential Permits, *NEB* export permits, and those developed by *NERC* and appropriate regional coordinating council and implemented by the *Coordination Committee*.

4.8 Adoption of Standards

The *Parties* hereby agree to adopt, enforce and comply with requirements and standards that will safeguard *Reliability* of the interconnected *Transmission Systems*. Such *Reliability* requirements and *Reliability Standards* shall be:

- (a) adopted and enforced for the purpose of providing reliable service;
- (b) not unduly discriminatory in substance or application;

- (c) applied consistently to both *Parties* and,
- (d) consistent with the *Parties* respective obligations to applicable *Standards Authorities* including, without limitation, any relevant requirements or guidelines from each of *NERC*, appropriate regional coordination council or any other regional *Standards Authority* or regional transmission group, and applicable U.S. DOE Presidential Permits and Canadian National Energy Board Permits.

4.9 Transfer Point for Real and Reactive Power

Real and reactive power will be transferred over the *Interconnection Facilities* as described in *Schedule* A where these circuits cross the international boundary. *Interconnection Facilities* that use phase shifters to control the MW flow across said facilities

should be operated as dictated by applicable agreements.

5.0: EMERGENCY ASSISTANCE

5.1 Emergency Assistance

Both *Parties* shall exercise due diligence to mitigate an *Emergency* to the extent practical as per applicable requirements of each of *NERC*, appropriate regional coordinating council, the MISO Energy and Operating Reserves Tariff and the pertinent *Ontario Market Rules*. In mitigating an *Emergency*, both *Parties* shall strive to allow for commercial remedies. *Emergency Energy* may be provided in cases of sudden and unforeseen outages of generating units, transmission lines or other equipment, or to meet other sudden and unforeseen circumstances such as forecast errors, or to provide sufficient *Operating Reserve*.

5.2 Emergency Energy Transactions

IESO shall, to the maximum extent it deems consistent with the safe and proper operation of the *Ontario Transmission System*, provide *Emergency Energy* to MISO pursuant to Schedule E. MISO shall to the maximum extent it deems consistent with the safe and proper operation of the *MISO Transmission System*, provide *Emergency Energy* to IESO pursuant to Schedule E. Both Parties agree to facilitate the delivery of emergency energy from remote BAs pursuant to Schedule E.

5.3 Emergency Plans

The Parties agree to the same communication protocols during normal and emergency conditions. The Parties shall provide copies of their updated emergency plans to one another.

The Parties agree to coordinate these plans with each other and with other neighboring BAs and RCs. Parties shall coordinate load shedding plans and shall coordinate generation and transmission outages to maximize capacity or conserve fuel in short supply. The Parties agree to

provide emergency assistance to one another and to facilitate obtaining emergency assistance from remote BAs.

6.0: EXCHANGE OF INFORMATION AND CONFIDENTIALITY

6.1 Information

MISO and IESO agree to exchange such information as may be required from time to time for the *Coordination Committee* to perform its duties and for the *Parties* to fulfill their obligations under this *Agreement*. Such information will be comprised of the following:

- (a) Information required to develop *Operating Instructions*;
- (b) *Transmission System* facility specifications and modeling data required to perform *Security* analysis;
- (c) Functional descriptions and schematic diagrams of *Transmission System* protective devices and communication facilities;
- (d) Ratings data, and associated ratings methodologies, for Interconnection Facilities;
- (e) Telemetry points, equipment alarms and status points required for real time monitoring of *Security* dispatch;
- (f) Data required to reconcile accounts for *Emergency Energy* transactions;
- (g) Commercially valuable *Transmission System* information concerning such things as transfer capabilities, physical curtailments and interruptions, ancillary services; provided, however, that this commercially valuable *Transmission System* information shall not be shared by the receiving *Party* with any other party that is a *Market Participant*; and
- (h) Such other information as may be required for the *Parties* to maintain the reliable operation of their interconnected *Transmission Systems* and fulfill their obligations under this *Agreement* and to any *Standards Authority* of which either *Party* is a member, provided, however, that this other information will be exchanged only if that can be done in accordance with restrictions on the disclosure of information to either *Party*.
 - (i) Reliability data to be exchanged shall be considered and adopted as an Operating Instruction deemed appropriate by the Coordination Committee, if the Parties do not already exchange such information. Among the considerations to be addressed by the Coordination Committee are the prospect

of future expenditures to make data available in compatible formats, and to supply data of the type required, and the time to implement required changes to software and hardware systems.

(j) The Parties agree to implement a methodology to exchange the information referred to in subparagraph (i) of this section 6.1. The Parties agree to negotiate in good faith to develop the aforementioned methodology that will minimize the cost of developing exchanging data.

6.2 Confidentiality

The *Party* receiving information pursuant to this Article 6 shall treat such information as confidential, and shall not, except as provided for in subsection 6.3, or as required to transmitters for the purpose of coordinating interconnected operation to maximize the reliability for both the power systems of the province of Ontario, Canada, and power systems under the authority of MISO, disclose any of the information received without the prior written consent of the *Party* supplying the information. The obligation of each *Party* under this subsection 6.2 continues and survives the termination of this *Agreement* by 7 years.

6.3 Demands for Disclosure

If information received by a *Party* is required to be disclosed in compliance with an order or subpoena of a court or regulatory body, or the award of an arbitrator, the *Party* that received the information, consistent with its legal and regulatory obligations, shall seek to protect the information demanded. The *Party* receiving the demand for disclosure shall also, consistent with its legal and regulatory obligations, notify the other *Party*, so as to give the other *Party* an opportunity to seek appropriate protection for the information demanded.

6.4 Communication Protocols

During normal and emergency operations, the Parties shall use any, some or all of the listed communication mediums: Reliability Coordinator Information System (RCIS), telephones, faxes, and e-mail. Contact information for these mediums for each company shall be maintained and exchanged by Parties separately from this agreement. The Parties agree to use uniform line identifiers when referring to transmission facilities of an interconnected network as described in Schedule A.

7.0: COORDINATION COMMITTEE

7.1 Coordination Committee Inauguration & Authorization

The *Parties* shall form a *Coordination Committee* under this *Agreement*. Within 30 days of the execution of this *Agreement*, each of the *Parties* shall appoint two representatives, a principal and an alternate, to serve as members of the *Coordination Committee* with the authority to act on their behalf with respect to actions or decisions taken by the *Coordination Committee*. A *Party*

may, at any time upon providing prior notice to the other *Party*, designate a replacement principal member or alternate member to the *Coordination Committee*.

7.2 Coordination Committee Duties and Responsibilities

The *Coordination Committee* exists to administer the implementation of the provisions of this *Agreement*. The *Coordination Committee* shall develop and adopt policies, instructions, and recommendations relating to the *Parties'* performance of their obligations under this *Agreement*, attempt to resolve *Disputes* between the *Parties* pursuant to Article 12 of this *Agreement*, and shall undertake any other actions specifically delegated to it pursuant to this *Agreement*.

The *Coordination Committee* shall undertake to jointly develop and authorize *Operating Instructions* to implement the intent of this *Agreement* in accordance with *Schedule* C, 'Procedures for Development and Authorization of *Operating Instructions*'.

Should the terms and conditions contained in this *Agreement* be found to conflict with or fail to recognize obligations of a *Standards Authority* of which either *Party* is a member or other regulatory requirements the *Parties* agree to amend this *Agreement* accordingly.

Any effective recommendations on revisions to this *Agreement* shall be provided to each *Party's* appropriate corporate officers for approval.

7.3 Limitations of Coordination Committee Authority

With the exception of periodic changes to the *Schedules*, the *Coordination Committee* is not authorized to modify or amend any of the terms of this *Agreement*. The *Coordination Committee* has no authority to commit either *Party* to any expenditure that is beyond those expenses described herein, nor to commit either *Party* to a course of action or an *Operating Instruction* that would violate a term or condition of an existing agreement between a *Party* and an owner of facilities constituting an *Interconnection*, or that would violate a rule, regulation, regulatory order, permit, or other applicable standard.

7.4 Exercise of Coordination Committee Duties

The *Coordination Committee* shall hold meetings no less frequently than twice each calendar year. The matters to be addressed at all meetings shall be specified in an agenda, which shall contain items specified by either *Party* in advance of the meeting and sent to the representatives of the other *Party*. All decisions of the Coordination Committee must be unanimous. Special meetings may be called at any time if the *Coordination Committee* deems such meetings to be necessary or appropriate.

Subject to the limitations on its authority as described in Section 7.3 of this *Agreement*, the *Coordination Committee* has the responsibility and authority to take action on all aspects of this *Agreement*, including, but not limited to the following:

- (a) amending, adding or canceling *Schedules*, or *Operating Instructions* and providing written notice in accordance with Article 16.0;
- (b) assessment of non-compliance with this *Agreement* and, subject to Article 12, the taking of appropriate action in respect thereof;
- (c) documentation of decisions related to the initial resolution of *Disputes* as set out in Article 12, or in cases of unresolved *Disputes*, the circumstances relevant to the *Dispute* in question as contemplated by the requirements of Article 12;
- (d) preparation, documentation, retention and distribution of *Coordination Committee* meeting minutes and agendas; and
- (e) joint development and implementation of decisions involving but not limited to the following work activities:
 - (i) development and maintenance of procedures for active power and reactive power accounting, including but not limited to methods of energy balancing;
 - (ii) approval of information and data exchange costs and scope;
 - (iii) documented points of operational data, as required by mutual agreement;
 - (iv) development and maintenance of outage scheduling and coordination procedures with respect to the reliable operation of the Interconnection Facilities:
 - (v) coordination of system tests; and
 - (vi) development of system restoration and mutual assistance procedures.

8.0 SECURITY COORDINATION AND RELIABILITY ASSESSMENT OF OUTAGES

Both *Parties* agree to provide each other with appropriate updates on planned outage schedules and other activities that may impact on the *Reliability* or availability of the interconnected *Ontario Transmission System* and *MISO Transmission System*. Such notice for planned outages shall be provided as far in advance as possible. Similarly, notice shall be provided as soon as possible following forced outages. As *Balancing Authority Operator* and *Reliability Coordinator* the IESO for the province of Ontario and MISO shall interact with each other as required, and with other *Balancing Authority Operators* and *Reliability Coordinators*, to establish *Security Limits* and to perform *Security* coordination and *Reliability* assessments of outages.

9.0: OPERATIONAL INFORMATION

9.1 Obligation to Provide Operational Data and Status Points

The *Parties* shall ensure that appropriate monitoring facilities are installed as required to provide for electric power quantities or equipment loading to enable monitoring of *System Operating Limits*, and to meet requirements of each of *NERC* and appropriate regional coordinating council.

9.2 Points of Operational Data

The points of data for operating information are those points as may be agreed in writing by the *Coordination Committee* from time to time.

10.0: INTERCONNECTION REVENUE METERING

Interconnection Revenue metering obligations shall remain with the LBAs and IESO.

11.0: LIABILITY AND INDEMNITY

11.1 Liability Between Parties

The *Parties*" duties and standard of care with respect to each other, and the benefits and rights conferred on each other shall be no greater than as expressly stated herein. Neither *Party*, nor its directors, officers, trustees, employees or agents, shall be liable to the other *Party* for any loss, damage, claim, cost, charge or expense, whether direct, indirect, incidental, punitive, special, exemplary or consequential, arising from the *Party's* performance or nonperformance under this *Agreement*, except to the extent that a *Party* is found liable for gross negligence or willful misconduct, in which case the *Party* will not be liable for any incidental, consequential, punitive, special, exemplary or indirect damage.

11.2 Liability for Interruptions

Neither *Party* shall be liable to the other *Party* for any claim, demand, liability, loss or damage, whether direct, incidental, punitive, special, exemplary or consequential, resulting from an occurrence on the circuits and system that are under the *Operational Control* of the other *Party* and which results in damage to or renders inoperative such circuits and system, or the separation of the systems in an emergency, or interrupts or diminishes service, or increases, decreases or in any way affects for whatever length of time the voltage or frequency of the power and energy delivered hereunder to the other *Party*.

11.3 Liability to Third Parties

Except as otherwise expressly provided herein, nothing in this *Agreement* shall be construed or deemed to confer any right or benefit on, or to create any duty to, or standard of care with reference to any third party, or liability or obligation, contractual or otherwise, on the part of the *Parties* to this *Agreement* to any third party.

12.0: DISPUTE RESOLUTION

In the event of a *Dispute* arising out of or relating to this *Agreement* that is not resolved by the representatives of the *Parties* who have been designated under Section 7.1 of this *Agreement* within 7 days of the reference to such representatives of such *Dispute*, each *Party* shall, within 14 days" written notice by either *Party* to the other, designate a senior officer with authority and responsibility to resolve the Dispute and refer the Dispute to them. The senior officer designated by each Party shall have authority to make decisions on its behalf with respect to that Party's rights and obligations under this Agreement. The senior officers, once designated, shall promptly begin discussions in a good faith effort to agree upon a resolution of the Dispute. If the senior officers do not agree upon a resolution of the Dispute within 14 days of its referral to them, or do not within the same 14 day period agree to refer the matter to some individual or organization for alternate dispute resolution, then either *Party* shall have the right to pursue any and all remedies available to it at law or in equity. Neither the giving of notice of a *Dispute*, nor the pendency of any Dispute resolution process as described in this Section, shall relieve a Party of its obligations under this Agreement, extend any notice period described in this Agreement or extend any period in which a *Party* must act as described in this *Agreement*. Notwithstanding the requirements of this section, either Party may terminate this Agreement in accordance with its provisions, or pursuant to an action at equity. The issue of whether such a termination is proper shall not be considered a Dispute hereunder.

13.0: FORCE MAJEURE

13.1 Force Majeure Defined

A *Party* shall not be considered to be in default or breach of this *Agreement*, and shall be excused from performance or liability for damages to any other *Party*, if and to the extent it shall be delayed in or prevented from performing or carrying out any of the provisions of this *Agreement*, arising out of or from any act, omission, or circumstance by or in consequence of any act of God, labor disturbance, sabotage, failure of contractors or suppliers of materials, act of a public enemy, war, invasion, insurrection, riot, fire, storm, flood, ice, earthquake, explosion, epidemic, breakage or accident to machinery or equipment or any other cause or causes beyond such *Party's* reasonable control, including any curtailment, order, regulation, or restriction imposed by governmental, military, or lawfully established civilian authorities, or by making of repairs necessitated by an emergency circumstance not limited to those listed above upon the property or equipment of the *Party* or property or equipment of others which is deemed under the *Operational Control* of the *Party*. Any *Party* claiming a *Force Majeure* event shall promptly give written and reasonably descriptive notification to the other *Party*, shall use reasonable diligence to remove the condition that prevents performance and shall not be entitled to suspend

performance of its obligations in any greater scope or for any longer duration than is required by the *Force Majeure* event. Each *Party* shall use its best efforts to mitigate the effects of such *Force Majeure* event, remedy it's inability to perform, and resume full performance of it's obligations hereunder; provided, however, a *Party* shall not be obliged to settle a labor disturbance to accomplish the foregoing.

14.0: GOVERNING LAW

This *Agreement* shall be governed and construed in accordance with the laws of the State of Delaware, with the exception of any choice of laws provisions therein.

15.0: EFFECTIVE DATE, TERMINATION AND ASSIGNMENT

15.1 Effective Date

This *Agreement* shall take effect on the date that MISO begins to perform *Balancing Authority* operations.

15.2 Termination

This *Agreement* may be terminated at any time by mutual agreement in writing. It may also be terminated by either of the *Parties* with at least one year's prior written notice to the other *Party* of its intention to terminate, provided that such unilateral termination shall not prejudice any outstanding obligations entered into under this *Agreement* that have accrued as at the date of termination.

15.3 Force of Agreement

This *Agreement* shall be binding upon and shall inure to the benefit of the IESO and MISO, and their respective successors and permitted assigns.

15.4 Assignment Requirements and Limitation

This *Agreement* shall not be assigned by either *Party* without the prior written consent of the other *Party*, such consent not to be unreasonably withheld or delayed. No assignment shall constitute a novation or release the assigning *Party* from its obligations under this *Agreement* without the express, written agreement of the other *Party*.

16.0: NOTICES

16.1 Correspondence

All notices shall be addressed to the respective corporate officers of MISO and the IESO set out in Section 16.2.

16.2 Notices

All notices shall be sufficiently given and conclusively deemed to be delivered:

- (a) on the date of transfer, receipt confirmed, if by means of facsimile transfer or electronic mail;
- (b) on the third business day after the day of mailing, if by mail and
- (c) at the time of delivery, if delivered by hand.

In the case of MISO to:
Midcontinent Independent System Operator, Inc.
720 City Center Drive
Carmel, IN 46032
USA
Attention:, General Counsel
Fax (317) (249-5912)
misolegal@misoenergy.org

In the case of the IESO to: Independent Electricity System Operator Station A, Box 4474 Toronto, Ontario M5W 4E5 Attention: John Rattray, General Counsel

Fax¹: (416) 506-28439 Telephone: (416) 506-2856 mailto:john.rattray@ieso.ca

Fax machine is located in a common area, any confidential facsimiles should be coordinated with a telephone call.

Either *Party* shall notify the other *Party* from time to time of a change to the foregoing information by sending a notice to that effect in accordance with the provisions of this Section 16.2.

IN WITNESS WHEREOF the *Parties* hereto have caused this *Agreement* to be executed in duplicate as of the day and year first written above.

Approved: Jennifer Curran

For: MIDCONTINENT INDEPENDENT SYSTEM OPERATOR, INC.



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10 1100	4-1	1 1000		

Vice President – System Planning and Seams Coordination Midcontinent Independent System Operator, Inc.

Signature Date: 7/12/16

For: INDEPENDENT ELECTRICITY SYSTEM OPERATOR.



Approved: Kim Warren

Vice President of Market & System Operation and Chief Operating Officer Independent Electricity System Operator

Signature Date: 7-4-20/6

Schedule A: Description of Interconnection Facilities

The IESO – MISO Coordination Agreement covers the MISO – Ontario *Interconnection Facilities*.

Michigan and Ontario:

The Michigan-Ontario Interconnection is comprised of the 4 main *Interties*, namely;

- 1. 230kV Interconnections J5D
- 2. 230kV Interconnection B3N
- 3. 345kV Interconnections LAD
- 4. 230kV Interconnection L51D

Interconnection Line J5D

Near Windsor, Ontario, a 230kV transmission circuit designated as J5D equipped with an in-line phase shifting voltage regulating transformer (PSR5) rated at 230/230 kV, 500 MVA, connecting the J Clark Keith Transformer Station to the Waterman Switching Station in Detroit, Michigan.

Interconnection Line B3N

Near Marysville, Michigan, a 230kV transmission circuit designated as B3N equipped with an in-line autotransformer (T201) rated at 235.75/126 kV, 675 MVA and two series in-line phase shifting transformers (PST1 and PST2) rated at 240 kV, 700 MVA (each), connecting the Bunce Creek Station to the Sarnia-Scott Transformer Station at Sarnia, Ontario.

Interconnection Line L4D

Near Courtright, Ontario, a 345kV transmission circuit designated as L4D equipped with two inline autotransformers (T7 and T8) operating in parallel and each rated at 346/225 kV, 600 MVA and an in-line phase shifting transformer (PS4) rated at 845 MVA, connecting the Lambton Transformer Station to the St Clair Power Plant near Marine City, Michigan.

Interconnection Line L51D

Near Marine City, Michigan, a 230kV transmission circuit designated as L51D equipped with an in-line autotransformer (T351) rated at 346/225 kV, 1000 MVA connecting the St Clair Power Plant, to the Lambton Transformer Station and an in-line phase shifting transformer (PS51) rated at 845 MVA, near Courtright, Ontario.

Minnesota-Ontario

The Minnesota-Ontario Tie is a synchronous 115 kV tie consisting of the following facilities, namely; 2.3 miles of 115 kV transmission line, F3M, similarly known as Line No. 726, from the

Fort Frances 115 kV switchyard in Ontario to the International Falls 115 kV switchyard in Minnesota.

Two 115 kV phase shifting regulating transformers at International Falls Substation, each capable of shifting ± 76 degrees. These two phase shifters are connected in series to provide a phase shifting capability of ± 152 degrees.

Boise Cascade-USA F3M Emergency radial supply 115 kV transmission line, from the Fort Francis 115 kV switchyard in Ontario to the Boise Cascade Substation #1 in the State of Minnesota.

This radial circuit is normally operated with an open point at Boise Cascade U.S Substation #1. (This section of transmission line is strung on common F3M towers A and B in Ontario and then splits off on separate structures crossing the Rainy River to the Boise Cascade Substation in Minnesota.)

Manitoba-Ontario

The Manitoba-Ontario Interconnection is comprised of three separate transmission circuits, two 230 kV circuits that are normally operated synchronously and a single 115 kV circuit, which is normally operated in a radial manner.

The two 230 kV circuits, K21W and K22W that physically connect Kenora in Ontario and Whiteshell in Manitoba are normally operated synchronously. Each circuit has a step up transformer and a phase shifting transformer located at Whiteshell that is used to control actual power flows to scheduled interchange within a control threshold range.

The 115 kV circuit SK1 that can connect Seven Sisters in Manitoba and Rabbit Lake in Ontario is normally operated radially with an open point between Star Lake in Manitoba and Clearwater Bay in Ontario.

Schedule B: [Reserved for Future Use]

Schedule C: Procedures for Development and Authorization of Operating Instructions

1.0 Overview

The Coordination Committee shall jointly develop and approve Operating Instructions and review them at least semiannually. The Coordination Committee shall submit draft material to one another for review and comment. The Coordination Committee shall provide comment on the draft material promptly and in any event within 30 days. The Coordination Committee shall promptly provide such information as may reasonably be required in connection with establishing, or reviewing, the material.

In the event that any conflicts arise or are made apparent to a Party, they shall notify the other Party and engage the Coordination Committee if necessary to resolve such conflicts. Outlined below are the key principles and items of methodology to be observed while the Coordination Committee is engaged in developing and approving Operating Instructions, and issuing them to their respective operations staff.

2.0 Principles

Given that the Parties' respective operations staff benefit from following a single instruction for all aspects of their execution of interconnected operations, it is an acceptable practice to combine this content to achieve the single Operating Instructions for use by a respective Party's operations staff.

Each Party shall coordinate the issuance internally of any Operating Instructions developed and agreed to by the Coordination Committee to ensure that their respective operations staff have the same Operating Instructions at the same time.

Operating Instructions, when approved by the Coordination Committee, shall be binding on the Parties insofar as they relate to the Coordination Facilities until they expire, are changed, deleted, or superseded by authority of the Coordination Committee, or unless terminated in advance by mutual agreement of the Parties or cancelled by either Party sending a 30-day prior written notice to the other Party.

3.0 Items of Methodology

Each page of the approved *Operating Instructions* shall be identified in the header or footer as the IESO – MISO *Coordination Committee*'s with any revision number. The effective date of the revision shall be listed on page one (1) of the *Operation Instructions*. This identification shall continue to be displayed internally when a given *Party* issues *Operating Instructions* in their respective company's documentation system.

By mutual agreement of the *Coordination Committee*, one *Party* shall control the revision process from the initial drafting of material through to the conversion of the *Operating*

Instruction into its final form.

Schedule D: Principles of Operating Interconnected Facilities

The MISO and the IESO entities shall respect the appropriate operating procedures set forth in current interconnection agreements with *Balancing Authorities* that border with Ontario.

Schedule E: Emergency Energy Transactions

1.0 INTRODUCTION

The IESO or the MISO may, from time to time, have insufficient Operating Reserves available to their respective systems, or need to supplement available resources to cover sudden and unforeseen circumstances such as loss of equipment or forecast errors. Such conditions could result in the need by the Party experiencing the deficiency to purchase Emergency Energy for Reliability reasons.

The purpose of this Section is to allow for the exchange of Emergency Energy between the IESO and the MISO during such times when resources are insufficient and commercial remedies are not available. The offer to provide Emergency Energy shall be available only when the Party experiencing the deficiency has declared an Energy Emergency Alert, Level Alert 2, as defined in NERC Standards.

For all transactions under this schedule, the MISO is the counterparty acting for and on behalf of its Market Participants, as set forth in the MISO Tariff.

2.0 CHARACTERISTICS OF THE POWER AND ENERGY

Unless otherwise mutually agreed, all power and energy made available by the Delivering BA shall be three phase, 60 Hz alternating current at operating voltages established at the Delivery Point in accordance with system requirements and appropriate to the Interconnection.

3.0 NATURE OF SERVICE

- **3.1** The IESO, to the maximum extent it deems consistent with:
- (a) the safe and proper operation of its own system,
- (b) the furnishing of dependable and satisfactory services to its own customers, and
- (c) its obligations to other parties, shall make available to the MISO Emergency Energy from available generating capability in excess of its load requirements up to the transfer limits in use between the two Balancing Authority Areas.

The IESO shall refer to all Emergency Energy transactions as being sold:

- (d) "Recallable" where such a delivery could reasonably be expected to be recalled if the IESO needed the generation for a deployment of reserves or other system Emergency; or
- (e) "Non-Recallable" where the IESO would normally be able to continue delivering the Emergency Energy following a reserve deployment.

The Parties shall use reasonable efforts to ensure that an Emergency Energy transaction continues only until it can be replaced by a commercial transaction.

- **3.2** The MISO, to the maximum extent it deems consistent with:
- (a) the safe and proper operation of its own Transmission System,
- (b) the furnishing of dependable and satisfactory services to its own customers, and
- (c) its obligations to other parties, including the terms and conditions of the MISO Tariff shall make available to the IESO Emergency Energy from available generating capability in excess of its load requirements up to the transfer limits in use between the two Balancing Authority Areas.

The MISO shall refer to all Emergency Energy transactions as being sold:

- (d) "Recallable" where such a delivery could reasonably be expected to be recalled if the MISO needed the generation for a deployment of reserves or other system Emergency; or
- (e) "Non-Recallable" where the MISO would normally be able to continue delivering the Emergency Energy following a reserve deployment.

The Parties shall use reasonable efforts to ensure that an Emergency Energy transaction continues only until it can be replaced by a commercial transaction.

- **3.3** In the event the Delivering BA is unable to provide Emergency Energy to Receiving BA when needed, but there is energy available from a third party Balancing Authority, delivery of such Emergency Energy will be facilitated to the extent feasible.
- **3.4** MISO does not take title to energy, or Emergency Energy, under its tariff but will purchase or sell such energy for and on behalf of, its Market Participants and will invoice and make payment to IESO, on behalf of the MISO Market Participants, as set forth in the MISO Tariff.

4.0 RATES AND CHARGES

- **4.1** All Emergency Energy transactions shall be billed based on scheduled deliveries.
- **4.2** All rates and charges associated with Emergency Energy shall be expressed in funds of the United States of America.
- **4.3** MISO and the IESO agree that the charge for Emergency Energy delivered by MISO or the IESO to the other Party shall be as defined below.

The Delivering Party shall be allowed to include, in the total price charged for Emergency Energy, all costs incurred in the delivery of Emergency Energy to the Delivery Point, and the Receiving Party shall be responsible for all costs at and beyond the Delivery Point.

Direct Transaction:

The charge for Emergency Energy supplied by Delivering Party in any hour to the Receiving Party shall be calculated using the following two-part formula. The first part of the formula calculates the energy portion of the charge and the second part incorporates any transmission charges incurred by the Delivering Party to deliver the Emergency Energy to the Delivery Point. In the case of the IESO as the Delivering Party, the cost of the energy portion shall be the higher of 150% of any applicable Intertie Zone price at the point(s) of delivery to provide the Emergency Energy, or \$100/MWHr. In the case of the MISO as the Delivering Party, the cost of the energy portion shall be the higher of the 150% of the LMP at the point(s) of exit at the bus or buses at the border of the Delivering Party's market, or \$100/MWHr.

Energy Portion for an hour =

(Emergency Energy supplied in the hour in MWHr) times

(Delivering Party's cost of such energy in \$/MWHr)

Transmission Charge to Delivery Point (if applicable) =

The actual ancillary services (including Delivering Party's market charges applicable to export schedules) and transmission costs incurred by the Delivering Party in delivering such Emergency Energy to the Delivery Point pursuant to the Delivering Party's Transmission Tariffs or the equivalent thereof.

Total Charge for Emergency Energy supplied in any hour =

The sum of the Energy Portion for an hour and the Transmission Charge for that same hour.

A Party requesting Emergency Energy under this Section is obligated to pay for the Emergency Energy in the amount requested once the Delivering Party has initiated the redispatch of generation in the Delivering Party's energy market or dispatch order, so that the energy will be made available at the time requested to the Receiving Party at the Delivery Point.

Transaction from Third Party Supplier:

The charge for Emergency Energy supplied to the Receiving Party from a third party through the Delivering Party's system shall be calculated using the following two-part formula. The first part of the formula calculates the energy portion of the charge and the second part incorporates any transmission charges incurred by the Delivering Party to Deliver the Emergency Energy to the Delivery Point. The Delivering Party's cost for Emergency Energy shall be the cost that the

third-party supplier charges the Delivering Party or as otherwise stated in an agreement between Receiving Party and the third-party supplier.

Energy Portion for an hour =

(Emergency Energy supplied in the hour in MWHr) times

(Third-party Supplier's charge for such energy in \$/MWHr)

Transmission Charge to Delivery Point (if applicable) =

The actual ancillary service costs (as applicable), transmission costs and all other applicable costs attributable to such transactions incurred by the Delivering Party in delivering such energy to the Delivery Point pursuant to the Delivering Party's Transmission Tariffs or the equivalent thereof.

Total Charge for Emergency Energy supplied in an hour =

The sum of the energy Portion for an hour and the transmission Charge for that same hour. A Party requesting Emergency Energy under this Section E is obligated to pay the Transmission Charge once the Delivering Party has entered the necessary schedules in the Delivering Party's system.

5.0 MEASUREMENT OF ENERGY INTERCHANGED

All Emergency Energy supplied at the Delivery Point shall be metered. The Delivering Party shall be responsible for the actual losses as a result of delivery to the Delivery Point and the Receiving Party shall be responsible for all losses from the Delivery Point.

6.0 BILLING AND PAYMENT

- **6.1** Unless otherwise specifically agreed upon by the Parties, the seven day period following receipt of an invoice shall be the standard period for all payments under this Section. Promptly after each emergency energy transaction MISO and the IESO shall prepare or cause to be prepared and within seven days of such transaction render to the other Party an invoice for the payment obligations, if any, incurred by the other Party hereunder.
- **6.2** Unless otherwise agreed by MISO and the IESO, all invoices under this Section shall be due and payable in immediately available same-day funds in accordance with each Party's invoice instructions on or before the seventh (7) day following receipt of the invoice. If such a day is not a banking day, then payment is due and payable on the first banking day common to the Parties following the due date. Each Party will make payments by electronic funds transfer in the currency of the United States of America, or by other mutually agreeable

- method(s), to the account designated by the other Party. When payments are mailed, the bill shall be considered paid on the date of receipt by the invoicing Party.
- **6.3** If the rendering of an invoice is unavoidably delayed, the Delivering Party may issue an interim invoice based on estimated charges. Each invoice shall be subject to adjustment for any errors in calculation, meter readings, estimating or otherwise. Any such adjustments shall be made as promptly as practical, but in no event later than six months after issuing the invoice.
- **6.4** MISO and the IESO hereby agree that they shall discharge mutual debts and payment obligations due and owing to each other under this Section through netting. As such, all amounts owed by MISO and the IESO to the other Party for the purchase and sale of Emergency Energy during the billing period under this Section, including any interest, and payments or credits, shall be netted so that only the excess amount remaining due shall be paid by the Party who owes it.
- If no mutual debts or payment obligations exist and only one of the Parties owes a debt or obligation to the other Party during the billing period including, but not limited to, any interest, that Party shall pay such sum in full when due.
- 6.5 Any amount not paid by the due date shall be deemed delinquent and subject to interest. Interest shall be computed from the due date until the date payment is received as follows: At an average prime rate for each calendar quarter on all unpaid amounts (including all interest applicable to such rates or charges). The applicable average prime rate for each calendar quarter shall be the arithmetic mean, to the nearest one-hundredth of one percent, of the prime rate values published in the Federal Reserve Bulletin, or in the Federal Reserve's "Selected Interest Rates" (Statistical Release G. 13), for the fourth, third, and second months preceding the first month of the calendar quarter. The interest required to be paid, shall be compounded quarterly.
- 6.6 If any invoice remains unpaid after the due date the Delivering Party may, in addition to all other remedies available to it, and after giving the Receiving Party at least five (5) days written notice of the Delivering Party's intention to do so, refuse to provide Emergency Energy under this Section so long as any amounts remain unpaid. Such action shall not be construed as a breach of contract by the Delivering Party and shall not relieve the Receiving Party of its obligations to pay for Emergency Energy in accordance with the provisions of this Section.
- **6.7** If a Party objects to all or a portion of any invoice, that Party shall, on or before the date payment of the invoice is due, pay the full amount of the invoice and shall give notice to the other Party within seven (7) days from the date the invoice is rendered, setting forth in specific details the basis for its objection and the amount thereof in dispute. The authorized officers of the Parties or their designees shall use their best efforts to develop a solution to the billing dispute. The authorized officers may choose to submit the billing dispute to a form of alternative dispute resolution to which the authorized officers may agree. If the objection

is upheld resulting in a refund, the disputing Party shall receive interest upon such amount as specified in Section 5.5 herein, from the date payment was received until the date upon which refund is made. Any refunds agreed to will be paid, with interest, within seven (7) banking days.

- **6.8** The applicable provisions of this Section shall continue in effect after termination of this Section to the extent necessary to provide for final billing, billing adjustments, payments and disposition of any claims outstanding.
- **6.9** Amounts due and owing from IESO to a third-party supplier under an agreement for the supply of Emergency Energy shall be invoiced and settled pursuant to the terms and conditions stated in that agreement.

7.0 RECORDS

Each Party hereto shall keep or cause to be kept complete and accurate records and memoranda of its operations hereunder and shall maintain such data as may be necessary to determine with reasonable accuracy any item required hereunder. With respect to invoicing records, each Party shall maintain or cause to be maintained such records, memoranda and data for the current calendar year plus the previous calendar year. A Party shall have the right to examine all such records and memoranda that are not confidential in so far as may be reasonably necessary for the purpose of ascertaining the reasonableness and accuracy of any statements of costs relating to transactions hereunder.

8.0 TERMINATION, REPLACEMENT OR REVISION OF OPERATING INSTRUCTION

This Operating Instruction shall remain in full force for the period as specified above unless terminated in advance by mutual agreement of the Parties or cancelled by either Party by sending a 30-day prior written notice to the other Party.