ISO Rules

Effective: December 1, 2007

Deleted: September 27
PREFACE

The ISO Rules Document is a combination of the previous Pool Rules, the Pool Code, the Transmission Administrator Operating Procedures (“TAOPs”) and the Settlement System Code. In addition, the new Electric Utilities Act (SA 2003 cE-5.1) (“EUA”) on June 1st, 2003, requires the ISO to establish schedules of fees and charges (s.20) and administrative penalties (s.22). While schedules are not considered rules, they are included in the ISO Rules Document for convenience.

In addition to a generally applied section that includes ISO rule definitions, the ISO Rules Document contains two broad categories: the first is Market Participation Rules; the second is Operating Policies and Procedures (“OPPs.”) The Market Participation Rules represent the combination of the Power Pool Rules and the Settlement System Code. The Operating Policies and Procedures combine the TAOPs and Pool Code, so they are now functionally one document.

Prior to the proclamation of the new EUA, the Transmission Administrator established Transmission Administrator Operating Policies or TAOPs, subsequent to consultation with industry. In conjunction with the establishment of TAOPs, the Power Pool Council established complimentary implementation procedures, as part of the rules of the power pool. These were referred to as the Pool Code. The authority to establish the TAOPs has been derived from the tariffs of the transmission facility owners. That tariff also contains a procedure for the parties to utilize in the event of a dispute regarding a TAOP. It is acknowledged that, notwithstanding that the TAOPs are now part of the ISO Rules through inclusion in the OPPs, matters dealing with the enforcement of TAOPs will continue to be dealt with through the TFOs tariff and not through the ISO Rules.

The objective of the ISO Rules Document was to create a single document that would comply with the new EUA. The ISO Rules Document also reduces duplication between previous rules and operating procedures. A consolidation of the definitions and terminology has also been included to ensure the language of the ISO Rules Document is consistent with the EUA.

The ISO Rules Document does not include either the ISO’s regulated transmission tariff, associated Terms and Conditions or the System Access Service agreements, given that these are beyond the scope of the rules process and are subject to the regulatory oversight of the Alberta Energy and Utilities Board (EUB). In the future, the AESO may consider consolidating all key AESO documentation in one “Manual” for ease of reference including the tariff related items and the Pool Participant manual.
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General
G1 DEFINITIONS

In the ISO rules:

“acceptable operational reason” means with respect to an asset, any one or more of the following:

i) a circumstance related to the operation of the generating asset which if it operated could reasonably be expected to affect the safety of the generating asset, the environment, personnel working at the generating asset or the public; or

ii) re-positioning an asset within the energy market due to the need to meet a dispatch given to that asset from the system controller to serve the stand-by ancillary services market; or

iii) re-positioning a generating asset within the energy market to manage physical or operational constraints associated with the asset; or

iv) re-positioning an importer's or exporter’s asset within the energy market to manage physical or operational constraints associated with an interconnection or a neighbouring control area; or

iv) a circumstance directly resulting in the generating asset not being capable of operation, which circumstance was solely caused by an occurrence of force majeure; or

vi) re-positioning a generating asset for electric energy that is:
   a) produced on the property of which a person is the owner or a tenant; and
   b) consumed solely by that person and solely on that property.

“Act” means the Electric Utilities Act (Alberta), as amended from time to time.

“adequacy” means the ability of the electric system to supply the aggregate electrical demand and energy requirements of the system access customers at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements.

“advance energy dispatch” means a dispatch of one or more blocks of energy for a specified future time. Advance energy dispatches are issued in anticipation of expected demand changes or to spread workload. Under normal operating conditions, interconnected control areas do not allow changing of interchange schedules without an advance energy dispatch.

“affiliate” has the same meaning given to it in the Alberta Business Corporations Act.

“AGC unit” means a generating unit equipped for Automatic Generation Control operation.

“agent” means a representative of a market participant, duly appointed and authorized by the market participant in accordance with rule 1.8.

“aggregation” means a collection of particulars into a whole mass or sum; total; combined.

“AIES” means Alberta’s “Interconnected Electric System” as that term is defined in the Act.
“AIES demand” means the aggregate or total, AIES demand for electric energy, including exports and associated AIES losses.

“Alberta Internal Load” (AIL) means the total energy Alberta consumes including behind-the-fence load. AIL represents the total domestic consumption of AIES connected loads in Alberta and include industrial loads served by on-site generation, and the City of Medicine Hat’s load served by the city’s generators.

“alert” means a communication issued by the system controller requesting readiness of the market participants to take urgent and timely actions to maintain the Alberta control area in a secure state with regard to energy balance. The alert also serves as information to interconnected control areas regarding the increased risk of the AIES to require obligation energy and its limitations in delivering such energy to others.

“ancillary service declaration” mean the ancillary service declarations identified under rule 3.6.

“ancillary service directive” means direction given to an ancillary service provider by the system controller with the understanding that the provider must comply, accepting that the facility owner retains the right and duty to take any action it deems prudent to protect the facility, its personnel, the public or the environment.

“ancillary service dispatch” means direction given to an ancillary service provider by the system controller to request the provider to supply ancillary services within those criteria agreed upon between the system controller and the ancillary service provider.

“ancillary service exchanges” means market entities for the purpose of buying and selling contracts for ancillary services.

“ancillary service merit order” means a list of all qualified ancillary service provider assets and resources for each type of ancillary service sorted in order of preference for ancillary service dispatch.

“ancillary service provider” means the pool participant holding the ancillary service dispatch rights for an asset.

“ancillary services” has the same meaning as that provided in the Act.

“apparent power” means the product of the volts and amperes, comprising both real and reactive power, usually expressed in kilovoltamperes (“kVA”) or megavoltamperes (“MVA”).

“area control error” (ACE) means the instantaneous difference between actual and scheduled interchange, taking into account the effects of frequency bias, time error and unilateral inadvertent interchange if automatic correction is part of the AIES’s AGC, and a correction for metering error.

"asset" means a generating asset, load, import volume, export volume or other power pool transaction represented by an ISO identifier that enables a pool participant to submit bids, offers, operating constraints, ancillary service declarations and/or identify specific settlement information.

“asset addition form” means the form, as established by the ISO, which ISO applicants or pool participants indicate their intent to add an asset, and includes a description of that asset.
"asset marginal price" means the price in $/MWh of a pool participant’s asset determined in accordance with rule 6.3.9.2.

“asset minimum off time” means the minimum time in hours, following de-synchronization that must elapse prior to accepting a dispatch to start-up and synchronize the asset to the transmission system.

“asset minimum on time” means the minimum time, in hours, which must elapse following synchronization before being able to accept a dispatch to de-synchronize the asset.

“asset schedule” means a schedule that in part identifies which assets are planned to receive an energy market dispatch to meet the forecast AIES demand for a trading day.

“automated dispatch and messaging system” means the software and procedures used to communicate between the system controller and market participants for real time management of the AIES.

“automatic generation control” (AGC) means equipment that automatically adjusts a control area’s generation to maintain its frequency or interchange schedule plus or minus frequency bias.

“automatic voltage regulator” (AVR) means the automatic control equipment that adjusts the excitation level of a generating unit to maintain voltage levels.

“available capability” (AC) means with respect to the following:

• for a generating asset, the maximum quantity (MW) that the generating asset is physically capable of providing during each settlement interval of the trading day.
• for an import source asset, the maximum quantity (MW) that the importer is prepared to provide during each settlement interval of the trading day.
• for an export sink asset, the maximum quantity (MW) that the exporter is prepared to consume during each settlement interval of the trading day.
• For a bid (excluding an export sink asset), the maximum quantity (MW), after accounting for any restatements to the asset’s availability to which the asset may receive an energy market dispatch in real time operations.

“available capacity factor” means the percentage of time that a generating unit is available at full machine capacity.

“available transfer capability” (ATC) means a measure of the transfer capability remaining in the physical transmission network for further commercial activity over and above already committed uses. Mathematically, ATC is defined as the total transfer capability (TTC) less the Transmission Reliability Margin (TRM), less the sum of existing transmission commitments (which includes retail customer service) and the capacity benefit margin.

“bank value” means that the power pool has sufficient funds in its bank account on the date of settlement in order to meet obligations relating to payment of funds.

“bid” means a submission made by a pool participant in accordance with rule 3.0.

“bid load” means the price responsive load bid into the ISO that can be dispatched for interruption at a set price to avoid high purchaser energy supply costs.
“billing capacity” shall have the meaning given to that term in rate schedule DTS.

“black start capability” (BSC) means the ability of a power plant or generating asset to start up without external electric supply and serve to provide power to the AIES.

“blackout” a condition where a major portion or all of the AIES is de-energized.

“block” see operating block.

“budget” means the budget prepared by the ISO under rule 2.2.

“business day” means a day other than a Saturday, a Sunday or a statutory or non-statutory holiday in the Province of Alberta during which financial banking privileges in Alberta are suspended.

“business hours” means the normal business hours of the ISO.

“calibration factor” means an adjustment to the loss charges ensuring that the actual cost of losses is reasonably recovered through charges and credits under the ISO tariff on an annual basis.

“capacity benefit margin” (CBM) means that amount of transmission transfer capability reserved by load-serving entities with generation on the AIES up to the purchased/owned amount of transmission, to ensure access to generation from interconnected systems to meet generation reliability requirements. CBM is currently not utilized in Alberta.

“capital contribution” means a one time payment required to be made by a system access customer for the provision of transmission facilities required for system access service.

“commercial operation” means the date upon which a load or generating unit begins to operate on the transmission system in a manner which is acceptable to the ISO and which is expected to be normal for it to so operate, after energization and commissioning.

“commissioning” means the process by which a facility is test, tuned and ultimately accepted for commercial operation.

“commissioning certificate” means the formal document signed by the owner of a project being constructed under the terms of the ISO request for proposal process (or his representative) and also by representatives of ISO. The purpose of the document is to certify that all commissioning tests have been completed and accepted by the ISO, and all deficiencies have been resolved, or will be resolved by a specified date. Any deficiencies are specifically listed. The date indicated on this certificate marks the start of commercial operation for the facilities and thus must be very specific.

“complaint” means a submission to the ISO regarding compliance with an ISO rule by a market participant or an interested party. A complaint must be in writing and contain, at a minimum, the following:

a) The name, address, telephone number (and email address, if available) of the market participant or interested party making it;

b) Whether the submission is made on a confidential basis;

c) The particulars of the complaint;

d) Any facts or information that support the complaint;
e) The signature of the individual or authorized representative of the market participant or interested party making the complaint.

“complainant” means the market participant or interested party who submits a complaint.

“compressed loss factor” means the loss factors determined by applying compression to the annualized loss factors to comply with the loss factor limitations described in the TR section 19(2)(f).

“confidential information” means:

- information provided to the ISO that has been specifically identified as being confidential in nature by the provider of such information; or
- information required by these rules or the ISO tariff to be kept confidential; or
- where disclosure of such information by the ISO could reasonably be expected to result in a material loss or gain to that provider; or could reasonably be expected to prejudice the provider's competitive position; or
- is financial, commercial, scientific or technical information, which if disclosed would put the supplier of the information at financial risk or competitive disadvantage.

Information is not confidential information if it is provided as a requirement of being a pool participant and identified in these rules or the ISO tariff as being required to be published by the ISO or otherwise required to be made available to others to ensure a fair, efficient and competitive market for electric energy.

“confirmation notice” is a notification from the ISO to a system access customer that the system access customer’s system access service application is complete and will be processed.

“constrained down” means, in respect of any generating unit, being directed to a lower MW output than the in merit MW output, as a result of a directive by the system controller.

“constrained on” means, in respect of a generating unit, being directed on while not in merit, as a result of a directive by the system controller.

“contingency” means an event occurring on the AIES; a “single-contingency” means the loss of a single system element under any operating condition or anticipated mode of operation.

“contingency reserve” means the reserve used to recover the area control error according to WECC criteria.

“contingency reserve obligation” to the NWPP means the provision of capacity and energy from one NWPP member to another following a contingency in accordance with NWPP guidelines.

“contract capacity” means the peak demand or supply capability (expressed in MW), as set out in the system access service agreement; it may change only in accordance with the provisions of that agreement.

“control area” means a geographic area comprised of an electric system or systems, bounded by interconnection metering and telemetry, capable of controlling generation to maintain its interchange schedule with other control areas, and contributing to frequency regulation of the interconnection, all in accordance with the requirements of the WECC.
“control area operator” means the entity that has responsibility for maintaining a control area’s AGC functionality to ensure frequency levels and interchange are maintained per WECC standards.

“Crown” has the same meaning as that provided in the Act.

“Current DDS submission” means a valid DDS offer submitted in accordance with rule 3.5.5 and includes any revision of prices and quantities in MW submitted for such DDS offer in accordance with rules 3.5.5.2 and 3.5.5.3.

“Current submission” means a valid offer or bid submitted in accordance with rule 3.5.1 and includes any revision submitted of prices and quantities in MW for that offer or bid in accordance with rule 3.5.3.2 b), 3.5.3.3, 3.5.4.2 b) or 3.5.4.3.

“Customer’s facilities” means all facilities interconnecting with the AIES on the system access customer’s side of the POD or POS.

“data model” means facts, figures, measurements and information pertaining to the power system. This data includes, but is not limited to, physical and electrical information associated with generators, transmission facilities and load.

“day” means the period in Alberta:

- in the case of a day on and from which time is to be one hour in advance of mountain standard time (first Sunday in April), 23 hours; or
- in the case of a day on and from which time is no longer to be one hour in advance of mountain standard time (last Sunday in October), 25 hours; and
- in all other cases, 24 hours;

beginning and ending at midnight.

“Day-ahead submission” means a valid offer or bid submitted for the next trading day in accordance with rule 3.5.1 and includes any revision submitted using a locking restatement for that offer or bid in accordance with rule 3.5.2 a) or rule 3.5.3 a).

“Deemed profiles” mean the pre-specified load shapes agreed to in advance. Commonly, this method has been used for loads, such as street lighting, with predictable, essentially flat shapes. However, a deemed shape could be developed for other applications based on engineering analysis and/or load shapes from other territories.

“Demand customers” are load system access customers and generation system access customers that consume power, the latter for the purposes of obtaining their back up supply.

“Demand opportunity service” (DOS) means service under any one of rate schedules demand opportunity service (DOS 7 minutes), demand opportunity service (DOS 1 hour), demand opportunity service (DOS standard).

“Demand Transmission Service” (DTS) means service under rate schedule demand transmission service.
“Designated TFO” means with respect to a Project, the TFO whom the ISO has determined pursuant to rule 9.1.1, to be the TFO eligible to be issued a Direction or to whom the ISO has issued a Direction, as the case may be;

“direct sales agreement” is an agreement, contract or arrangement that has the same meaning as that provided in the Act.

“Direction” means the Direction issued or to be issued by the ISO to a Designated TFO to submit a transmission facility proposal to the EUB for approval pursuant to the HEEA of a Project, or portion of a Project, consistent with the Service Proposal and Service Proposal Estimate for such Project provided by such Designated TFO, including without limitation the Project cost, in service date and functional specifications;

“directive” means a direction given to a market participant by the system controller with the understanding that the market participant must comply, accepting that the facility owner retains the right and duty to take any action it deems prudent to protect the facility, its personnel, the public or the environment. A directive may instruct a market participant to curtail or restore load, or to stop planned work on a transmission or generation element and restore the element to service as quickly as possible.

“dispatch” has the same meaning as that provided in the Act, which means a direction from the ISO to a pool participant to cause, permit or alter the exchange of electric energy or ancillary services.

“dispatch down service” (DDS) means a voluntary service offered by a source asset to be dispatched off, in accordance with rule 6.3.6.

“DDS block” means the discrete MW level as identified within an offer and is the basis by which an asset receives a DDS dispatch.

“DDS dispatch” means a direction given by the system controller to a pool participant to provide DDS.

“DDS dispatched off” means a DDS dispatch has been issued for the termination of the provision of DDS.

“DDS dispatched on” means a DDS dispatch has been issued for the provision of DDS.

“DDS merit order” means a list of all valid DDS offers by DDS providers for a settlement interval consisting of DDS blocks sorted in order of price.

“DDS offer” means a submission made by a pool participant in accordance with rule 3.5.5

“dispatch log” means the permanent written or electronic record entered by the system controller that logs all dispatches and operational activities having been undertaken during a trading day.

“dispatch time” means:

- for intra-Alberta generation and load energy market dispatches, the time to start increasing or decreasing supply or demand volume (MW);
- for interconnection energy market dispatches, the interchange schedule start time;
• for ancillary service dispatches, the time when an ancillary service resource is to be in position to provide the amount (MW) of ancillary service dispatched or the time when the ancillary service is no longer required.

“dispatched off” means, when applied to bids in the energy market merit order, a dispatch has been issued for the termination of energy consumption. When applied to offers in the energy market merit order, it means a dispatch has been issued for the termination of energy delivery.

“dispatched on” means, when applied to bids in the energy market merit order, a dispatch has been issued for the consumption of electrical energy. When applied to offers in the energy market merit order, it means a dispatch has been issued for the delivery of electrical energy.

“dispute submission period” means the 20 business days after the final pool statement is issued that includes the final reconciliation settlement for a settlement period.

“distributor” means a party providing “distribution access service” as defined in the Act.

“disturbance” means an unplanned event which produces an abnormal system condition or the effects experienced by a power system following a contingency, such as high or low frequency, abnormal voltage, or oscillations in the system.

“disturbance control standard” (DCS) means a performance measure applied to a control area (CA) or reserve sharing group (RSG) for recovering from a disturbance within 15 minutes by restoring area control error (ACE) to 0 or to its pre-disturbance level.

“DOS One (1) hour” means opportunity service to system access customers who are recallable within one (1) hour and which is provided when sufficient transmission capacity exists to accommodate the capacity scheduled for opportunity service.

“DOS request” means the document that is faxed to the system controller requesting opportunity service.

“DOS seven (7) minutes” means opportunity service to system access customers who are recallable within seven (7) minutes and which is provided when sufficient transmission capacity exists to accommodate the capacity scheduled for opportunity service.

“DOS standard” means opportunity service to system access customers which is provided when sufficient transmission capacity exists to accommodate the capacity scheduled for opportunity service.

“dynamic estimates” are the results of a profiling method using load research data from the day of interest.

“dynamic VArS” means reactive power that is generated or consumed by an asset as part of the asset’s inherent response during system disturbances.

“E&GI Act” means the Electricity and Gas Inspection Act (Canada) and regulations made thereunder, as amended from time to time, or such replacement legislation as may be enacted.

“electrical islands” a condition in the electrical system where geographical areas of the AIES electrically separate from the AIES, resulting from system disturbances, such that there exists both generation and load in these separated areas.

“electronic submission facilities” means the electronic facilities through which a pool participant interacts with the ISO, and as described in the pool participant manual.
“electronic tag” (e-tag) means an electronic form which contains information and data necessary for control areas and other operating entities to assess, confirm, approve or deny, implement, and curtail interchange transactions as stipulated by NERC.

“emergency assistance” means energy provided to the party experiencing a system emergency, by the other party.

“emergency limit” means the maximum operating limit of a system element permitted by the owner of the element for a predefined duration.

“energization” means the electrical connection of the facilities to the AIES.

“energization certificate” means the formal document signed by representatives of the party requesting permission to connect transmission facilities, a load or a generator and also by representatives of the ISO. The purpose of the document is to certify that all requirements for interconnection either have been met or will be met. Any deficiencies are specifically listed.

“energy consumption” means for all pool participants

- not exporting from the AIES through use of an interconnection, the metered MWh value for the settlement interval representing the deemed electric energy received by the pool participant as recorded in the ISO data base.
- exporting from the AIES through use of an interconnection, the energy market dispatch MW volume to be transferred across that interconnection during the settlement interval and as recorded in the dispatch log.

“energy market dispatch” means a direction given by the system controller to a pool participant to cause a specified amount of electric energy to be provided to or taken off the AIES based on the energy market merit order and includes an instruction to synchronize, desynchronize, increase or decrease electrical output.

“energy market merit order” means the list of all valid offers and bids for a settlement interval sorted in order of offer and bid price blocks.

“energy production” means for all pool participants

- not importing to the AIES through use of an interconnection, the metered MWh value for the settlement interval representing the actual electric energy supplied by the pool participant as recorded in the ISO data base.
- importing to the AIES through use of an interconnection, the energy market dispatch MW volume to be transferred across that interconnection during the settlement interval and as recorded in the dispatch log.

“energy production uplift” means an amount that may be paid to a pool participant with a source asset that has received an energy market dispatch, subject to the conditions and calculations provided for in rule 8.1.2.
“Energy Trading System” (ETS) means the Internet-based system used to manage electricity market transactions.

“enforcement escalation notice” For purposes of load settlement, a formal notice provided to a stakeholder who, as a result of not completing the requirements stated in a Non-Compliance Notice, is being escalated to the next enforcement level.

“enforcement withdrawal notice” For purposes of load settlement, a formal notice provided to a stakeholder who has completed the requirements for withdrawal from enforcement.

“EPA approval” means the approval or approvals required under the Environmental Protection Act (Alberta) for the construction of a facility.

“EUB” means the Alberta Energy and Utilities Board established under the Alberta Energy and Utilities Board Act (Alberta).

“exception” means an error requiring special attention has occurred. To raise an exception means the act of detection of the problem and flagging the problem for remediation whether by automated or manual means.

“export service” means service under rate schedule export service.

“exporter” means a consumer of electric energy for delivery out of Alberta.

“external referral” means a submission to the ISO regarding compliance with an ISO rule by a market participant or an interested party that does not comply with the requirements of a complaint.

“external spinning reserves” means spinning reserves obtained from a host control area.

“Final Cost Report” means a document to be completed substantially in the form of the “Final Cost Report” posted by the ISO on its website.

“final reconciliation settlement” means the final settlement calculations provided by load settlement agents.

“final statement” means the accounting statement issued pursuant to a default action in accordance with rule 8.5.1.

“financial obligations” means the power pool financial obligations of a pool participant actually incurred or likely to be incurred, including the net dollar value of the transactions plus any charges expected or to be owed to the ISO.

“financial year” means the 12 calendar month period beginning on January 1 in each year and ending on December 31 in the same year.

“firm interchange transaction” means an import or export interchange transaction for which the source control area carries the associated operating reserve.

“firm load” means the load that the ISO and system members will use reasonable best efforts to supply without interruption.

“firm load responsibility” means the Alberta control area’s firm load demand served under Demand Transmission Service (DTS), plus AIES losses, plus firm export transactions, minus
firm import transactions, minus that firm load under the ISO’s DTS which is under contract to provide operating reserves.

“flexible block” means a block of energy that may be partially or fully dispatched on.

“force majeure” means any occurrence which is beyond the reasonable control of the market participant, which could not have been avoided by the exercise of reasonable diligence and which prevents a market participant from performing its obligations under the ISO rules; provided that the foregoing force majeure shall not include a lack of finances or any occurrence which can be overcome by incurring reasonable additional expenses.

“forced outage” means a necessary, automatic or emergency removal of the facility directly caused by defective equipment, adverse weather, adverse environment, system condition, human element or foreign interference to avoid risk of danger or damage to personnel, the public, or physical plant.

“forced supply reduction” means a non-elective reduction in the supply of energy, including ancillary services, to an electric system or a forced extension to an outage or derate, caused by an unplanned failure of a generator or supply from another electric system, or an automatic or manual action taken to secure the electric system, or unusual or abnormal operating conditions, which results, in real time, in one of the parties lacking or being projected to lack, after drawing on all available resources, sufficient supply, including ancillary services, on its electric system to securely meet its load requirement, or obligations to WECC or MAPP.

“forecast asset marginal price” means the price of a pool participant’s asset in $/MWh determined in accordance with rule 5.2.2.

“forecast dispatch price” means the price in $/MWh calculated for each settlement interval in accordance with rule 5.2.1.

“forecast pool price” means the price in $/MWh calculated for each settlement interval in a forecast scheduling period in accordance with rule 5.3.1.

“forecast schedule” means a schedule of the kind referred to in rule 5.2.1 that in part identifies which assets are planned to receive an energy market dispatch to meet the forecast AIES demand for day 2 through day 7 of the forecast scheduling period.

“forecast scheduling period” means the 7 day period starting with HE 1 of the next trading day and ending HE 24, of the 6th day following the next trading day.

“forward contract” has the same meaning as given in the Act.

“forward market operator” means a person that provides net settlement instruction MWh volumes on behalf of pool participants, and has entered into an operating agreement with the ISO.

“generating asset” has the same meaning as generating unit as defined in the Act.

“generating facility owner” (GFO) has the meaning as that provided for “owner” in the Act, of a generating unit.

“generating unit” has the same meaning as given in the Act.

“generating year” means the period from commercial operation to December 31 in the calendar year in which a generating asset reaches commercial operation, and the period from January 1 to December 31 in all subsequent calendar years.
“generic stacking order” means the ISO’s annual forecast of the operational dispatch of generating units and their respective operating blocks based on historical data and other information provided to the ISO expressed on a seasonal basis.

“good electric operating practice” means, in respect of a party, the standard of practice attained by exercising that degree of knowledge, skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances. Good electric operating practice is not restricted to the optimum practice or course of action to the exclusion of all others but rather comprises the spectrum of reasonable practices, methods or acts applicable to the circumstances, and having regard to economic considerations.

“governor” or “governor system” means automatic control equipment with speed droop characteristics to control generating unit speed and/or electric power output.

“gross MVar” means 1 million VArS or 1000 kiloVArS of reactive power measured at the generating unit voltage terminals.

“gross MW” means 1 million watts or 1000 kilowatts of real power measured at the generating unit voltage terminals.

“HEEA” means the Hydro and Electric Energy Act (Alberta).

“hh” refers to the current clock hour.

“high net regulating limit” means the maximum hourly average net MW that an asset is capable of producing while performing AGC services.

“host control area” means the control area, outside the Alberta control area, within whose metered boundaries the resources utilized by the external supplemental/spinning reserve provider to provide the spinning reserve are located.

“hour ending” or “HE” means the 60 minute period ending that hour. For example, HE 24 includes the time between 23:00 and 24:00. For pool price and dispatch purposes, the hour starts at hh:00:00 and ends hh:59:59 for hh+1.

“hybrid estimates” are the results of a profiling method combining modeling of historical load research data with load research data from the current day.

“import load remedial action scheme” (ILRAS) means a service provided by one or more ancillary service providers that consists of a transfer tripping scheme between the 500 kV circuit breakers at Langdon and Cranbrook on the 500 kV tie-line between Alberta and British Columbia and one or more system access customer load breakers. The remedial action scheme (RAS) is so designed that the tripping of the tie line causes the load breaker(s) to open automatically, within 8 cycles of the trip initiation of the 500 kV breaker(s).

“import service” means service under rate schedule import service.

“importer” means an importer of electric energy to Alberta.

“in merit” means a designation applied to an asset dispatched by the system controller that qualifies the asset as eligible to set the system marginal price.
“incapability Factor” (ICBF) = 1 – available capacity factor

“inadvertent interchange” or “inadvertent energy” means the difference between the control area’s net actual interchange and net interchange schedule.

“incremental loss factor” means the total increase in AIES losses experienced as a result of a specific energy transfer for a specified period of time divided by the amount of such transfer over the same period of time. “Specific energy transfer” takes into consideration locational effects.

“Independent System Operator” (ISO) has the same meaning as that provided in the Act.

“inflexible block” means a block of energy that may be dispatched on or dispatched off, but not partially dispatched on.

“initial daily settlement” is a calculation of load settlement conducted within 5 business days after the day of flow. Initial daily settlement, by virtue of its timing, does not use consumption information from cumulative meter readings, nor does it use interval data retrieved on a monthly basis.

“initial monthly settlement” is a calculation of load settlement for the preceding month.

“interchange schedule” means the planned interchange of energy between two adjacent control areas that results from the implementation of one or more interchange transaction(s).

“interchange transaction” means an energy transaction that crosses one or more control area boundaries.

“interconnected electric system” has the same meaning as that provided in the Act;

“interconnected members” means any organization external to the AIES being an owner of transmission facilities which are directly connected to facilities of the AIES.

“interconnection” means the electrical connection of the AIES with any electric system in a jurisdiction bordering Alberta.

“intermediary control area” means a control area on the interchange transaction path between the source control area and sink control area.

“internal referral” means a submission to the ISO regarding compliance with an ISO rule by the ISO board, an ISO employee or a contractor of the ISO.

“interruption” means any action causing partial or full curtailment of electrical power flow.

“ISO asset list” means the list of assets as maintained by the ISO as contemplated by rule 1.3.2, which identifies current assets.

“ISO board” means members of the Independent System Operator created under section 7 (1) of the Act.

“ISO fees” means the fees established by the ISO pursuant to the Act.

“ISO load forecast” means a twenty-year load forecast for the AIES established and updated by the ISO not less than once each year.
“ISO rules” means the rules made by the ISO pursuant to the Act.

“ISO tariff” means the tariff prepared by the ISO, that has been approved by the EUB, pursuant to the Act.

“load” means the instantaneous amount of electric energy delivered or required at any specific point or points on the AIES.

“load profile” is a series of load or consumption amounts for each interval over a particular time period. In this document, the intervals are one hour, so that the profile may be considered either as average load (kW) or total consumption (kWh) for each interval. The profile may be expressed either as the average per customer or as the total load for each interval.

“load profile shape” is a normalized load profile. Specifically, the energy consumption in each interval (hour) is expressed as a fraction of the total energy consumption for the time span of the profile.

“load settlement agent” (LSA) is the party conducting load settlement calculations for a particular settlement zone.

“load settlement calculations” are the calculations conducted by a load settlement agent.

“load settlement system” is a computer system and associated operations and interfaces operated by load settlement agents used to determine the load responsibility at each unit of the settlement interval for each retailer operating within the settlement zone.

“Load Shed Service” (LSS) means a block of load contracted by the ISO to provide instantaneous 59.5 Hz underfrequency load shedding (UFLS). The magnitude of this load will vary and will be telemetered to the ISO by the service provider.

“locking restatement” means a revised daily offer or bid for a trading day, which restates the MW volume of an asset’s individual blocks.

“loss factors” means a number determined by the ISO:

- for each generating unit connected to the interconnected electric system, which when multiplied by the MW output of the unit reasonably represents the unit’s impact on average transmission system losses,
- for each demand opportunity service connected to the interconnected electric system, which when multiplied by the MW demand reasonably represents the service’s impact on transmission system losses,
- for each opportunity import and export transaction scheduled on the interconnected electric system, which when multiplied by the MW demand of the transaction reasonably represents the impact on transmission system losses, and
- for firm import transactions (service not currently available) scheduled on the interconnected electric system, which when multiplied by the MW demand of the transaction reasonably represents the import transaction’s impact on average transmission system losses.

“loss factor methodology” means the detailed methodology for determining loss factors set forth in Appendix 7.
“losses” means the energy that is lost through the process of transmitting electric energy.

“low net regulating limit” means the minimum hourly average net MW that an asset is capable of producing while performing AGC services.

“maneuverability” means the ability of a resource to change its real- or reactive-power output over time. Maneuverability is characterized by the ramp rate (e.g., MW/minute) of the resource and, for regulation, its acceleration rate (e.g., MW/minute\(^2\)).

“MAP buyer” means the entity purchasing a MAP product from the Balancing Pool under a Balancing Pool Power Sale Agreement of December 2000 and any permitted assignee or transferee of those rights.

“MAP product” means the energy rights purchased, under a Balancing Pool Power Sale Agreement of December 2000 for the Market Achievement Plan (MAP), by a MAP buyer.

“market participant” has the same meaning as that provided in the Act.

“marketer” means an importer, an exporter, or a person trading within Alberta registering net settlement instructions.

“Market Surveillance Administrator” (MSA) has the same meaning as given in the Act.

“material adverse change” means a downgrade in the credit rating of a pool participant by any credit rating agency, or an event that may result in the materially weaker creditworthiness of a pool participant as reasonably determined by the ISO.

“maximum capability” means:

- for a generating asset, the maximum quantity (MW) that the generating asset is physically capable of providing under optimal operating conditions for that asset while complying with all applicable ISO rules and terms and conditions of the ISO tariff; or
- for an import source asset, the available capability.

“maximum continuous rating” (MCR) means the maximum net power output that can be sustained by a generator.

“measurement data” is data that has been collected from meters, compensated and aggregated appropriately, and has been subjected to the required VEE checks, included in load settlement rules.

“measurement point data” is the data associated with a metered measurement point.

“measurement point definition record” is a specification that defines the physical arrangement of the metering systems as well as any algorithms used to manipulate the metering data to produce the measurement data associated with the measurement point to which the specification applies.

“mediation committee” means the committee formed under rule 11.0.

“merchant facility proponent” means the person proposing a merchant transmission facility;

“merchant transmission facility” means a transmission facility as defined in s.15(1)(a) of the Transmission Regulation;
“merchant transmission terms and conditions” means terms and conditions set by a merchant facility proponent which provides standards, classifications, regulations, practices, measures and terms and conditions applicable to a person who obtains transmission capacity on a merchant transmission facility pursuant to this rule 9.6;

“meter” means the apparatus which measures active energy, reactive energy or both, including any internal recorder, or clock, which is normally tested as part of the apparatus.

“meter data manager” (MDM) means an entity responsible for collecting metering data, correcting and validating interval metering data, storing historic data, and reporting load and consumption data and corresponding time periods to appropriate parties.

“meter service provider” (MSP) means an entity that performs installation, removal, repair, and maintenance of meters.

“metered demand” means the rate at which electric energy is delivered to a POD, or from a POS, expressed in kW or MW, averaged over a 15-minute or shorter interval as deemed necessary by the ISO.

“metered energy” means the quantity of energy reflected by the relevant metering equipment as having been transferred in a particular period of time.

“metered quantity” means apparent power, reactive power, real power, time tagging and any other quantity that may be measured by metering equipment and that is required by the ISO in connection with the performance of its duties or functions under the Act.

“metering data” means the data associated with a metering point.

“metering equipment” means any current transformers, potential transformers, interconnecting wiring, meters, remote metering communication facilities and records used by the owner of the metering equipment in connection with the ISO tariff to measure metered demand.

“metering system” means a metering system is the devices required for metering a site, and the apparatus includes meter, CT/PT and communications.

“minimum stable generation” means the minimum generation level that an asset can be continuously operated at without becoming unstable.

“modeled estimates” are the results of a profiling method using historical load research data, together with weather or other conditions from the day of interest.

“month” means a calendar month.

“month-at-a-time (MAAT) settlement” is a process of conducting settlement for all days of a month at once.

“Mountain Prevailing Time” means Mountain Standard Time when Daylight Saving Time is not in effect, and Mountain Daylight Saving Time when Daylight Saving Time is in effect.

“Mega VAr” or “MVAr” means 1 million VArS or 1000 kiloVArS of reactive power.

“MW” means megawatt(s) or means 1 million watts or 1000 kilowatts of real electrical power.
“MWh” means megawatt hour(s). A unit of energy.

“MW capacity” means an asset's MW capacity is defined as the highest MW value, after accounting for any restatements to the asset's availability to which the asset may receive an energy market dispatch in real time operations.

“N minus 1” (N-1) means a single transmission outage, or the first contingency, when all other transmission lines are in service.

“NERC” means the North American Electric Reliability Council.

“net MW” means the megawatt(s) produced by an asset as measured or calculated on the high voltage side of the unit transformer.

“net settlement instruction” means a direct sales agreement or forward contract registered with the ISO by a pool participant or forward market operator under the requirements of rule 4.2, which will be netted out of meter volumes for purposes of calculating power pool settlements.

“net settlement instruction MWh volume” means net settlement instruction quantities of energy in MWh, registered with the ISO that a seller has agreed to sell or to provide a purchaser for a specified settlement interval.

“net system load shape” (NSLS) is the shape of a total load of a settlement zone, minus interval metered loads, deemed loads, loads based on specific load-research-based profiled classes and known losses.

“NID” means a needs identification document referred to in s. 34 of the Act and the TR;

“NID Estimate” means a document to be completed substantially in the form of the “Needs Application Cost Estimate” posted by the ISO on its website;

“non-compliance notice” For purposes of load settlement, a formal notice provided to a stakeholder who has not complied with an ISO Rule.

“non-dispensated metering equipment” means metering equipment installed after May 31, 1998 which is not the subject of a waiver or dispensation by Industry Canada of requirements under the E&GI Act.

“non-spinning reserve” means that operating reserve not connected to the AIES but capable of serving demand within a defined period, or interruptible load that can be removed from the AIES within a defined period all in accordance with WECC criteria.

“non-zero block” means any block of energy with volume that is not 0 MW.

“normalized annual loss factor” or “Final Loss Factor” is set as the weighted average of the four seasonal shifted loss factors.

“NWPP” means the North West Power Pool.

“off peak” means those periods of time which are not on peak.

“offer” means a submission made by a pool participant in accordance with rule 3.0.
“on peak” means the period of time from HE 9 to HE 21 inclusive, Mountain Prevailing Time during a business day. For the BC interconnection, this means HE 0800 to HE 2300 Mountain Prevailing Time, Monday to Saturday, except for additional off-peak days identified in NERC Operating Policy 1, Appendix 1F. For the Saskatchewan interconnection, this means HE 0700 to HE 2200 CST (no Daylight Saving Time), Monday to Saturday, except for Alberta and Saskatchewan statutory holidays as agreed by the ISO and SaskPower. Exceptions to this definition may be used for purposes of WECC reporting, or as otherwise noted.

“open access” means providing market participants and other interested parties wishing to obtain transmission capacity on a transmission facility, the right to do so in an open and non-discriminatory manner;

“operating block” means the discrete MW level as identified within an offer or bid and is the basis by which an asset receives an energy market dispatch.

“operating constraint” means a constraint as identified in electronic submission facilities.

“operating reserves” means the capability above system demand required to provide for regulation, load forecasting errors, equipment forced and scheduled outages and local area protection. It consists of spinning reserve and non-spinning reserve.

“operating transfer capability” (OTC) means means the maximum amount of actual power that can be transferred over direct or parallel transmission elements comprising an interconnection from one control area to another control area, and as further defined by the WECC.

“operating week” means the period from 00:00 Saturday to 24:00 Friday.

“opportunity capacity” means the incremental amount of transmission capacity that is available under a system access service agreement for demand opportunity service to provide capacity in addition to contract capacity for DTS.

“opportunity service” means system access service offered to any system access customer who can establish to the ISO’s satisfaction that it would not take system access service pursuant to rate schedule DTS and with respect to which, therefore, the service requirement presents the opportunity for incremental revenue with which the ISO can offset transmission costs, subject to the availability of transmission capacity.

“opportunity service customers” means those system access customers which meet the criteria for opportunity service, as defined in the ISO tariff.

“outage” means any full or partial unavailability of equipment.

“overfrequency” means the abnormal operating state or system condition that results in a system frequency above the normal 60-HERTZ.

“owner” has the same meaning as that provided in the Act;

“participation factor” means a number between 0 and 100 which describes the nature and the extent of the response of an AGC unit during a control cycle. AGC units recording participation factors from 0.1 to 100 are providing non-emergency AGC service. AGC units recording a participation factor of zero provide AGC service only during a system emergency or disturbance.
“peak metered demand waiver” refers to the process by which the ISO may, in its sole discretion, disregard the peak metered demand for a settlement period, for the purposes of calculating the billing capacity.

“physical capacity” means the maximum amount of electric power which a transmission facility, as rated by a TFO, is able to transmit.

“point of delivery” (POD) means a conceptual point of delivery from the transmission system. A POD is the point at which energy is deemed to be delivered from the transmission system to the distribution system. A POD is a collection of one or more interval meters (metering points) aggregated according to measurement point definition records.

“point of distribution interchange” (PDI) is a conceptual point of interchange between distribution systems.

“point of distribution supply” (PDS) is a conceptual point of supply onto a distribution system. A PDS is the point at which energy is deemed to be supplied on to the distribution system. This is the interconnection point between a distributed generator and a distribution system.

“point of interconnection” (POI) is a conceptual point of exchange with non-AIES control areas at transmission voltages. A POI is a collection of PODs and POSs aggregated according to a fixed formula to create a real or virtual point of energy delivery or receipt from outside the transmission system.

“point of supply” (POS) is a conceptual point of supply onto the transmission system. A POS is the point at which energy is deemed to be supplied to the transmission system.

“pool participant” means a market participant who is registered to transact, listed in the pool participant list.

“pool participant agreement” means the form of agreement, as established by the ISO, which a person must enter into in order to become a pool participant as contemplated by rule 1.1 and shown in Appendix 2.

“pool participant list” means the list of pool participants as maintained by the ISO as contemplated by rule 1.3.1 which identifies current pool participants and details pool participant information such as mailing locations.

“pool participant manual” means the ISO reference document that provides both technical guidance to pool participants wishing to execute ISO electronic interactions with the ISO and specific directions in using ISO sanctioned software and procedures.

“pool participation fee” means any annual participation fees determined under rule 2.2.2.

“pool price” means the price for electric energy in $/MWh reported by the ISO for each settlement interval of the trading day in accordance with rule 6.3.9.1.

“pool settlement date” means the business day on which financial settlements relating to the pool statement will occur in accordance with rule 8.4.3.

“pool statement” means the accounting statement issued pursuant to rule 8.4.
“post final adjustment mechanism” (PFAM) is a process that market participants must follow when final settlement data is being disputed and the market participants are requesting financial adjustments be made as a result of the dispute.

“power factor” means the ratio of real power to apparent power.

“power pool” means the power pool within the meaning of the Act.

“power purchase arrangement” (PPA) means those instruments setting forth the rights and obligations of the parties in relation to operation of generating units and entitlements to electricity and ancillary services and approved by the EUB under provisions of the Act.

“power system data” means a compilation of electrical characteristics in an integrated format representative of the physical system.

“power system monitor” means a data acquisition system that detects disturbances and stores the voltage and/or current and/or watt and/or VAr and/or frequency response information.

“power system stabilizer” (PSS) means automatic control equipment that modulates the generating unit excitation through an AVR to dampen electric power swings.

“PPA buyer” means the entity holding energy rights as acquired from the original purchase of a power purchase arrangement as contemplated in the Act, or as subsequently transferred or assigned in whole per Article 18 of the thermal power purchase arrangements.

“PPA effective date” means January 1, 2001 or such other date as the power purchase arrangements become effective.

“price block” means the discrete block identified in $/MWh for which a pool participant has placed an offer or bid within a defined MW level (see operating block).

“price responsive load” means load which, by owner discretion, may be removed or connected to the AIES as a function of the system marginal price for electricity.

“profile segmentation” is the method of dividing sites into profiling classes.

“profiling cap” is the size level above which a site is required to have interval-metering data.

“profiling class” is a group of sites that will be settled using a common load profile.

“Project” means the project generally described as any one of the following:

(i) the means or manner by which a constraint or condition affecting the operation or performance transmission system could be alleviated as identified in a NID approved by the EUB pursuant to s. 34(3) of the Act;

(ii) the request for system access service pursuant to s. 5(5)(b) of the TR;

(iii) all the transmission facility proposals referred to in s. 35(1)(a) of the Act with respect to a specific approved NID; or

(iv) the “transmission line”, as defined in the HEEA, which has been approved by the EUB pursuant to the HEEA;
“Project Change Proposal” means a document to be completed substantially in the form of the “Project Change Authorization Form” posted by the ISO on its website;

“Project Energization” means the date on which a project, including a project that is energized in stages, is fully energized and operational, as specified in an energization certificate or energization checklist of the ISO.

“Project Material” means with respect to a Project, all equipment, material and construction, installation, testing and commissioning services required for the construction of the Project and provided by a third party, but excluding any engineering services;

“Project Progress Report” means a document to be completed substantially in the form of the “Monthly Project Progress Report” posted by the ISO on its website;

“prudential requirements” means the requirements related to power pool settlement established by the ISO pursuant to rule 2.1 and as detailed in Appendix 3.

“Quarter” means each consecutive three months of a calendar year commencing January 1;

“Quarterly Projects Report” means a document to be prepared by the ISO substantially in the form of the “Quarterly Projects Report” posted by the ISO on its website;

“ramp rate” means the rate at which an asset will change its level of supply or demand in MW per minute in response to an energy market dispatch or directive.

“ratchet level” shall have the meaning ascribed thereto in rate schedule DTS.

“rated capacity” means the maximum amount of electric power which a transmission facility is rated by the manufacturer to be able to transmit.

“raw loss factor” means the loss factor calculated for each generating unit for each base case load flow condition prior to applying a shift factor or compression;

“reactive power” is the portion of electricity that establishes and sustains the electric and magnetic fields of alternating current equipment, usually expressed in kiloVAr (“kVar”) or megaVAr (“MVAr”).

“real power” means the rate of producing, transferring, or using electrical energy, expressed in kilowatts (“kW”) or megawatts (“MW”).

“receiving control area” means the control area importing the interchange schedule.

“reference price” means the price in $/MWh calculated and determined by the ISO in accordance with rule 3.10.

“registered aggregate asset” means:

• in relation to multiple generating assets physically located at a single site, that a single offer must be submitted for the cumulative capability of the generators located at the site; or

• in relation to certain run of river hydro generation schemes that a single offer must be submitted for the cumulative capability of the registered group of generators; or
in relation to certain generating assets or demand management processes that are operated via a single command and control scheme, that a single offer or bid must be submitted for the cumulative capability of the management scheme.

“regulated rate provider” (RRP) has the same meaning as that provided in the Act.

“regulating reserve” (RR) means the amount of spinning reserve responsive to automatic generation control that is sufficient to provide normal regulating margin.

“regulation” means the provision of generation and load response capability, including capacity, energy, and maneuverability, that responds to automatic controls issued by the system controller.

“reliability” means the combination of adequacy and system security.

“reliability compliance committee” (RCC) means the committee established by the WECC pursuant to the WECC Reliability Criteria Agreement. The responsibilities of the RCC are set out in the WECC Reliability Criteria Agreement.

“reliability management system” (RMS) means the contractual reliability management program implemented through the WECC Reliability Criteria Agreement, the WECC RMS Agreements and the Generator RMS Agreements.

“remedial action scheme” (RAS) means protection schemes designed to perform pre-planned corrective measures following a disturbance to provide for acceptable AIES performance or equipment protection.

“retailer” has the same meaning as that provided in the Act.

“retailer of record” is the single entity, either the retailer or the regulated rate provider, that the load settlement system recognizes as providing service to a given site for a given day.

“rules” see ISO rules.

“scheduling program” means the computer program used to develop the asset schedule, and as described in rule 5.1.3.

“self retailer” means a person that is a “customer” as defined in the Act, which is carrying out the functions of a retailer to obtain electricity for the customer’s own use.

“sending control area” means the control area exporting the interchange schedule.

“service area” means any of the geographic areas determined by the EUB as the area of an electric distribution system pursuant to ss. 28 and 29 of the HEEA;

“Service Proposal” means a document to be completed substantially in the form of the “Proposal to Provide Service” posted by the ISO on its website;

“Service Proposal Estimate” means a document to be completed substantially in the form of the “Service Proposal Estimate” posted by the ISO on its website;

“settlement interval” means a period beginning on the hour and ending 60 minutes later and is the time increment that MWh amounts are settled financially by the ISO. A settlement interval is the time increment at which distinct load estimates are calculated by load settlement systems.
“settlement period” means the period beginning at HE 01 on the first day of each month and ending HE 24 on the last day of the same month.

“settlement ready data” is data that is ready for use in load settlement. Data shall be validated, estimated and edited as outlined in the standards, and aggregated or totaled to measurement point data as per the measurement point definition records.

“settlement timing” is the frequency at which load settlement is calculated and reported to the ISO and to retailers by load settlement agents.

“settlement zone” is the collection of sites that are jointly settled by a load settlement system and over which UFE is calculated and allocated.

“shift factor” means the correction that must be made to the loss factor for each individual generating unit to account for all of the MW losses in the system that are not assigned by the loss factor methodology.

“shift log” means an electronic form used by the system controller to record significant events related to the real time operation of the AIES.

“shortage of energy supply event” a state the power system may get into due to either insufficient reserves or actual shortage of energy to meet the demand. At times such an event can be anticipated through a scheduling process, at other times it may take place due to a sudden change in load (error in the load forecast) or due to the unplanned outage of generation or transmission elements.

“signoff letter” an official ISO correspondence detailing power pool settlement dispute information including, but not limited to:

- ISO dispute number
- settlement period in dispute
- settlement summary of adjustments and pool participant signoff provision.

“sink asset” means a load, export volume or other power pool transaction represented by an ISO identifier that enables a pool participant to submit bids, operating constraints, ancillary service declarations and/or identify net settlement instruction MWh volumes bought from a seller to be settled in the power pool.

“sink control area” means the control area in which the load is located for an interchange transaction.

“site” means a unique end-use service delivery point. This is the finest level at which load settlement recognizes retailer assignments, and receives consumption data.

“socket” is normally a point at which a physical meter is installed, or a point at which a site load is calculated.

“software and procedures” means any and all technical software used for ISO communications and specific directions in applying such software.
“source asset” means a generating asset, import volume, or other power pool transaction represented by an ISO identifier that enables a pool participant to submit offers, operating constraints, ancillary service declarations and/or identify net settlement instruction MWh volumes sold to a purchaser to be settled in the power pool.

“source control area” means the control area in which the generation is located for an interchange transaction.

“spinning reserve”, means the amount of unloaded generation that is synchronized to the AIES and ready to serve additional demand;

“standing offer” or “standing bid” means those offers or bids submitted in accordance with rule 3.7.

“static estimates” are the results of a profiling method using historical load research data without input from conditions on the day of interest.

“STS Capacity” has the same meaning as in the ISO tariff.

“STS contracting party” means the party holding the STS contract for a given generating asset. For those assets governed by a PPA, the PPA buyer will be the STS contracting party. For other generating assets, the GFO will be the STS contracting party.

“supplemental governor response” means the ability of a governor system to respond more than that normally required for steady state asset operation. Normal governor response ensures that the governor valves open and close in response to frequency deviations caused by normal moment to moment AIES load fluctuations. Supplemental governor response ensures that the governor valves will move faster than normal or that governor valve movement will create a change in the electrical power output of an asset in response to a significant frequency deviation caused by a disturbance.

“supplemental reserve” means generation that is capable of being connected to the AIES and loaded within 10 minutes, or load that can be reduced within 10 minutes.

“supply shortfall directive” means a directive issued for supply shortfall energy as part of the ISO supply shortfall operating policy and procedures.

“supply shortfall energy” means a generating asset’s maximum available electric energy in excess of what is offered in operating blocks and active ancillary services, the asset is providing, which could be made available to the AIES for each settlement interval.

“Supply Transmission Service” (STS) means service under rate schedule supply transmission service.

“sustained outage” means the automatic removal of a power system element whereby attempts to restore the element by automatic means, such as automatic reclosing, fails or is not successful.

“system access customer” means a market participant who takes, or applies to take, system access service from the ISO.

“system access service” has the meaning ascribed to the term “system access service” in the Act.
“system access service agreement” means that contract, entered into between the ISO and a system access customer, which establishes the specific terms pursuant to which each individual system access customer obtains system access service.

“system average loss factor” means the losses experienced for all energy transferred during a specified period of time divided by the total of all energy transferred over the same period of time.

“system controller” means the ISO scheme to carry out the ISO duty to direct the safe, reliable and economic operation of the AIES, pursuant to the Act and includes the dispatching of the energy market merit order and the ancillary services merit order.

“System Contribution” has the same meaning as in the ISO tariff.

“system coordination plan” means the plan which the ISO provides to the TFOs and the system controller three (3) days in advance of the operating week which amalgamates all planned maintenance outages and commissioning activities that the ISO has been advised of, and which are scheduled to take place in the next operating week, and have been determined to pose an acceptable level of risk to system security from an operational planning perspective.

“system demand ramp” means the instantaneous MW to serve the sum of a) AIES load + losses plus, b) Alberta-BC interchange schedule plus, c) Alberta-Saskatchewan interchange schedule.

“system emergency” is a situation in which there is systemic equipment malfunctions, including widespread transmission or generation outages and derates, a complete loss of communication with the system controller, or a loss of the system controller’s market management tools.

“system interval meters” are all interval meters that are defined to be part of the transmission system, and are used by the ISO in determining the energy flows of the transmission system.

“system level” is hourly values for distribution interchange, distributed generation, and border customer consumption that are needed to describe the total hourly energy flow on the AIES at the transmission level and the inputs and outputs to each and every distribution settlement zone for each hour.

“system marginal price” (SMP) means the price in $/MWh determined for each minute of a settlement interval in accordance with rule 6.3.9.2.

“system member” means any organization or individual being an owner of any or all of transmission, generation and distribution facilities.

“system security” means the safe scheduling, operation and control of the AIES on a day-to-day basis in accordance with the specified technical, security and operational standards to withstand events such as electric short circuits, unanticipated loss of AIES components and switching operations without experiencing cascading loss of AIES components or uncontrolled loss of load.

“TFO terms and conditions” means the document which sets forth the terms and conditions of service upon which the TFO will provide transmission services to the ISO.

“total declared energy” means for an asset in a particular settlement interval, the total offered energy in an asset’s operating blocks plus the asset’s supply shortfall energy including ancillary services.

“total trading charge” means the amount calculated pursuant to rule 2.2.3.
“total transfer capability” (TTC) means the amount of electric power that can be transferred over the interconnected transmission network in a reliable manner while meeting all of a specific set of defined pre- and post-contingency system conditions.

“TR” means Transmission Regulation, Alberta Regulation AR 174/2004;

“trading day” means the day to which an offer or bid relates starting with HE 1 and ending HE 24.

“trading limit” means the maximum financial obligations to which a pool participant is or is expected to be owing the ISO where such limit is determined by the ISO or is the amount of financial security provided in accordance with Appendix 3.

“transmission constraint” means a limitation imposed by one or more transmission elements to normal economic merit operation of generation, load and interchange transactions or to the flow of electrical energy from one part of the AIES to the other.

“Transmission Customer” means, with respect to a specific Project, the customer, as defined in the ISO tariff, who has made application for system access service;

“transmission facility” has the same meaning as that provided in the Act.

“transmission facility owner” (TFO) has the same meaning as that provided for “owner” and “transmission facility” in the Act.

“transmission must-run” (TMR) means a generator is constrained on to operate at a minimum specified MW output level in order to maintain system security.

“Transmission Operations Coordination Committee” (TOCC) means the committee accountable to the ISO, with membership made up of transmission facility owners, charged with ongoing review and upgrading of all operating standards and guidelines for coordinated operation of the control area and transmission system.


“transmission reliability margin” (TRM) means that amount of transmission transfer capability necessary to ensure that the interconnected transmission network is secure under a reasonable range of uncertainties in system conditions.

“transmission system average loss factor” means the total energy of transmission system losses divided by the total net to grid energy produced for a given calendar year for the interconnected electric system.

“transmission system losses” means, for each year, the total of the transmission system losses on the interconnected electric system.

“unaccounted for energy” (UFE) is the difference between (a) the distribution system total load for the hour and (b) the sum of the allocated hourly loads at the customer meters, plus their allocated losses.

“under voltage load shed” (UVLS) means a protection scheme that enables pre-configured devices to automatically shed load to stabilize voltage when voltage falls below predetermined limits.
“underfrequency” refers to the abnormal operating state or system condition that results in a system frequency below the normal system operating frequency of 60-HERTZ.

“underfrequency load shedding” (UFLS) means the automatic or manual actions required to shed system load when the system frequency falls below the normal system operating frequency of 60-HERTZ in order to allow for the return to a secure state.

“VAr” means volt-amp reactive, a measure of reactive power.

“virtual metering point” is an effective point of measurement, that may or may not be physically locatable, where active energy or reactive energy is deemed to have been transferred through the point that is derived from one or more metering points.

“wire owner” (WO) has the meaning as that provided in the Act for “owner” and “electric distribution system”. Wire owners maintain the responsibilities as that provided in the Act and the Roles, Relationships and Responsibilities Regulation.

“wire services provider” (WSP) is a person authorized by a wire owner to act on behalf of that owner.

“western interconnection” means the area comprising those states and provinces, or portions thereof, in western Canada, northern Mexico and the western United States in which members of the WECC operate synchronously connected transmission systems.

“WECC” means the Western Electricity Coordinating Council.

“WECC emergency assistance” means the provision of capacity and energy at the time of a system emergency by one WECC member to another as required by WECC guidelines.
G2 ELECTRIC UTILITIES ACT DEFINITIONS

Unless the contrary intention appears, words and phrases defined in the Act have the same meanings when used in these rules.
In these rules, unless the context otherwise requires:

(a) headings, underlining and bold italicized topic sentences are for convenience only and do not affect the interpretation of these rules;

(b) words referring to the singular include the plural and vice versa;

(c) words referring to a gender include any gender;

(d) all times shall be in accordance with the prevailing mountain standard or mountain daylight time in the Province of Alberta;

(e) words and phrases in bold type have the meanings given to them in the definitions outlined in G1.
This document sets out the ISO rules. These rules are designed to promote an efficient, fair and openly competitive market for electricity in Alberta. All market participants are expected to comply with the Act and the rules.

The objective of these rules is to provide and promote an efficient, fair and openly competitive markets for electric energy. The ISO rules have whatever force they are given by the Act.

Each market participant is bound by and will comply with all provisions of the Act and its regulations and is subject to, and attorns to the jurisdiction of, the Courts of the Province of Alberta in respect of all matters relating to the Act, its regulations and the ISO notwithstanding the jurisdiction of incorporation or residence of the market participant.

The ISO has no obligation to connect electric services to market participants.

A person who is not a market participant will not be recognized, or entitled to any rights or benefits, under these rules, except as provided herein. A person who is a market participant but is not a pool participant may have their rights and benefits limited and their obligations extended, pursuant to the Act and the ISO rules.
The ISO may change the rules.

The ISO may exercise its powers under the Act to change the ISO rules from time to time as it considers desirable and appropriate. The ISO may only make changes to either the specific responsibilities of the ISO board provided for within the rules or any other rules specified by the ISO board with ISO board approval.

Other than what in the opinion of the ISO are emergencies such changes may be made after giving at least 5 business days written notice to affected market participants.
This section is to be developed.
The ISO will ensure that it is administered and operated according to these rules.

The ISO will be administered and operated in accordance with these rules and will appoint appropriate resources to ensure that systems required for the operation and administration of the ISO function properly.

The ISO will use reasonable endeavors to ensure that procedures are available respecting the use of any software, that when followed by a pool participant, will result in the pool participant entering a valid bid, offer, ancillary services declaration, operating constraint or net settlement instruction.

The ISO will give pool participants reasonable notice of any modifications that affect the use of the software.
The ISO and certain of its related parties have a limited liability. Market participants have certain obligations.

Pursuant to the Act, no action lies against an “Independent System Operator person” for an “Independent System Operator act” where such person is not an individual unless such act constitutes wilful misconduct, negligence, or breach of contract. Where such person is an individual, liability only accrues if such act is not carried out in good faith. If an “Independent System Operator person” is liable to another person for an “Independent System Operator act”, then such person is liable for only direct loss or damage suffered and incurred by that other person, in accordance with the Act.

No person has any liability to another as a result of scheduling or determination of the energy market merit order, DDS merit order or the ancillary service merit order by or for the ISO, dispatch or DDS dispatch by the system controller, or a failure by the system controller to dispatch or DDS dispatch an asset, or failure of a pool participant to provide electric energy pursuant to an offer and in accordance with an energy market dispatch, or failure of pool participant to provide a service pursuant to a DDS offer and in accordance with a DDS dispatch, or a failure of a pool participant to take electric energy pursuant to a bid nor has any person any liability to another as result of the use of information made available or published through the ISO in accordance with these rules. The obligations of the market participants are limited to:

(a) being bound by a bid or offer which is specified by these rules, or otherwise, to be binding and settling their accounts in accordance with these rules. Failure to pay an account by the dates prescribed by these rules will entitle the ISO to commence legal proceedings to collect the same and to realize upon any letters of credit or other security which may have been provided;

(b) conducting themselves in accordance with these rules. Failure to comply with these rules, including those with respect to settlement of accounts and in addition to the collection of such accounts, will subject the market participant to disciplinary proceedings in accordance with the rules and the obligation to comply with an ISO order pursuant to the Act.

Notwithstanding the foregoing, nothing herein prevents the ISO, the Market Surveillance Administrator or any market participant from initiating or pursuing an action or claim for non-monetary relief, such as injunction order and orders to deliver up documents, against each other or others for failure to observe these rules with respect to the disclosure of confidential information.

The foregoing is subject to the provisions of the Act, as amended or extended from time to time, and to the extent that the ISO rules are inconsistent with the Act, the latter shall prevail.
Part Two
Market Participation Rules
1. POOL PARTICIPANTS

1.1 Requirements of Becoming / Application to Become a Pool Participant

*The ISO will approve pool participants, subject to certain conditions.*

Except as otherwise provided in the Act or these rules, no person will exchange electric energy through the power pool or provide ancillary services as contemplated in the Act unless that person is a pool participant.

An application for participation shall be made to the ISO in a form as set out in Appendix 1, and shall be accompanied by the required documents and appropriate fees as set out in these rules.

The ISO shall acknowledge to the applicant receipt of an application within 5 business days following such receipt.

On application to the ISO and upon payment of the appropriate fees and, if in the reasonable opinion of the ISO:

a) that applicant will exchange electric energy through the power pool as a market participant, that applicant will provide ancillary services, or any other market participant subject to specific approval by the ISO; and

b) that applicant is of sufficient financial standing to meet its financial obligations under these rules, including compliance with the prudential requirements for it, as determined pursuant to these rules; and

c) that applicant will be able to maintain compliance with and agrees to be bound by the ISO rules by executing a pool participant agreement as set out in Appendix 2; and

d) that applicant will make arrangements for metered volumes to be provided to the ISO by a meter data manager, load settlement agent or a source otherwise approved by the ISO; or the applicant, if it intends to act as an importer and/or exporter, has a valid system access service agreement with the ISO; and

e) that applicant has satisfied any financial obligations attributable to its previous registration which remain outstanding; and

f) that applicant has provided facility requirements as set out in the ISO Operating Policies and Procedures, according to specifics of that applicant’s particular facility; or

g) if the applicant has requested to become a pool participant solely to provide ancillary services, that applicant must have either entered into a contractual arrangement with the ISO, or meet the applicable standards for ancillary services set by the ISO.

The ISO will endeavor within 20 business days after receiving the application to accept the applicant as a pool participant on the conditions permitted under these rules.

The ISO shall forthwith upon making the decision advise the applicant and, if the application is approved, enter that pool participant's name on the pool participant list and enter that pool participant's assets on the ISO asset list. If the ISO is of the opinion that the applicant has not satisfied the requirements specified, an explanation as to why the applicant has not satisfied the requirements shall be provided the applicant. If not satisfied with the ISO’s decision the applicant may, within 30 business days, file an appeal to the ISO board.
Where further information or clarification is required by the ISO, the 20 business day period referred to above ceases running until that information or clarification is provided to the ISO, at which time that period commences to run again.

1.2 Pool Participant Amendment Requirements

A pool participant must provide specific information and/or meet certain requirements in order to amend their information.

Unless otherwise approved by the ISO, a pool participant requesting an amendment to the pool participant list or ISO asset list, must satisfy the ISO by meeting the following conditions:

(a) Submitting an asset addition form for a request to amend or add assets;
(b) Submitting a request to amend company contact information. The ISO may request proof of employment prior to accepting an amendment to pool participant contact information;
(c) Written notice for a company name change or an asset ownership change. Legal proof of submitting the change must be provided.
(d) Where applicable to the request, the amendment satisfies rule 1.1.

Having satisfied the foregoing requirements, the ISO will endeavor within 20 business days for those amendments that must adhere to the facility requirements as set out in the or 10 business days for all other amendments, to accept the amendment to the pool participant on the conditions permitted under these rules. The ISO will advise the applicant if the amendment is approved, and will amend the pool participant list, the ISO asset list or any other necessary modification. If the ISO has not approved the amendment, an explanation as to why the pool participant has not satisfied the requirements shall be provided. If not satisfied with the ISO’s decision the applicant may, within 30 business days, file an appeal to the ISO board.

1.3 Pool Participant List and ISO Asset List

The ISO is responsible for maintaining public lists of pool participants and assets.

1.3.1 Pool Participant List

The pool participant list contains specific information.

The ISO will maintain a pool participant list. The list will contain the following information.

a) pool participant’s name, mailing address, facsimile number;

b) Contact individual's name(s), phone number(s), facsimile number(s);

c) Where applicable, the agent’s name, mailing address, facsimile number;

d) Such other information that the ISO considers appropriate.

A pool participant's name will remain on the list of pool participants until the ISO directs that it be removed.

1.3.2 ISO Asset List
The ISO will maintain an ISO asset list. The list will contain all of the assets and the pool participant that possesses each asset.

1.3.3 Public Availability of Lists

The pool participant list and the ISO asset list are available on the Alberta Electric System Operator website.

1.4 Discipline By ISO

The ISO may apply sanctions, penalties or both, as deemed appropriate.

Subject to a participant’s rights of appeal and notwithstanding rule 2.2.2(c), where a complaint is received that a pool participant has ceased to meet the requirements for participation contained in rule 1.1 or a market participant has contravened any provision of these rules or an ISO order except as otherwise provided in rule 12 and it is determined by the ISO to warrant inquiry, the ISO will notify the market participant of the nature of the complaint and set a time and date for the matter to be heard. Upon hearing the complaint, including representations from the market participant, the ISO may, where it is of the opinion that the pool participant has ceased to meet the requirements for a pool participant or a market participant has contravened any of these rules or an ISO order except as otherwise provided in rule 12:

a) deny, suspend or terminate the pool participant ’s registration as a pool participant; or

b) order the imposition of administrative penalties and other sanctions, including terms and conditions pursuant to which the market participant must conduct itself.

Immediately upon termination of participation, the ISO will issue a notice of involuntary termination regarding the terminated pool participant to all remaining pool participants and the system controller. The ISO will remove the pool participant's name from the pool participant list and deactivate the assets on the ISO asset list effective the date of termination specified in the ISO’s notice.

The ISO has the right to suspend or terminate a pool participant's privilege to transact in the power pool

a) in the event of default pursuant to rule 8.5; or

b) if the level or manner of financial security provided is insufficient in accordance with prudential requirements pursuant to Appendix 3.

1.5 Termination of Participation by a Pool Participant

Pool participants no longer wishing to participate in the power pool must notify the ISO.

Subject to rule 1.6, any pool participant may terminate its participation by:

a) notifying the ISO, in writing, that it wishes to cease participation;

b) by specifying in the notice, a date upon which it will cease to be a pool participant; and

c) by meeting any unfulfilled financial obligations as determined by the ISO.
Immediately upon receipt of such notice, the ISO will issue a notice of voluntary termination regarding the pool participant, including the date of termination specified in the pool participant's notice to all remaining pool participants and the system controller. The ISO will remove the pool participant's name from the pool participant list and deactivate or transfer ownership of the assets on the ISO asset list for that pool participant effective the date of termination specified in the pool participant's notice, or date as otherwise determined by the ISO to meet the unfulfilled financial obligations.

1.6 Effect of Termination

Pool participants will remain subject to liabilities after they cease to participate in the power pool.

A pool participant which is or may become subject to a liability under these rules in connection with its activities as a pool participant shall become or remain subject to that liability after and despite ceasing to be a pool participant.

Any securities provided by the pool participant shall be released 30 days after the last financial obligations are settled.

1.7 Reinstatement of Participation

At the discretion of the ISO, a pool participant may be reinstated subject to the terms set out in rule 1.1.

1.8 Appointment of an Agent

Upon approval from the ISO, a market participant may appoint an agent to represent them in dealings with the ISO.

A market participant may, with the approval of the ISO, appoint an agent to act on behalf of that market participant in respect of some or all of their power pool or ancillary service transactions.

The ISO shall be provided with an agent approval request form outlining the proposed appointment, including proof that the appointment has been duly authorized by:

i) the owner, operator, manager, lessee or PPA buyer of a generating asset; or
ii) the pool participant for all other assets possessed by the pool participant

b) The ISO will, upon receipt of such notification and of proof to its satisfaction that the appointment is duly authorized and upon being satisfied that the authority of the agent to act on behalf of and bind the market participant is clear, approve the authorization. The ISO may deny the appointment of an agent, or revoke agency status, if it has determined that the agency appointment would not be in the best interests of a fair, efficient and openly competitive market. In accordance with rule 1.10.2 a), ISO approval is subject to the limitation of information sharing between the market participant and its agent.

c) The market surveillance administrator will be notified of agent appointments. The ISO or market surveillance administrator may require additional information prior to making any determination with respect to the appointment of an agent.

d) The pool participant shall be bound by, and fully responsible for all acts or omissions, even if the actions or omissions are those of an approved agent acting within its actual or apparent authority.
1.9 Renewal Provisions

All pool participants will normally have the term of their pool participant agreement extended by one year on an annual basis subject to the payment of pool participation fees in accordance with rule 2.2.2.

1.10 Market Participant Behaviour Guidelines

1.10.1 Purposes and Background of Rule

The following guidelines are intended to assist market participants in avoiding anti-competitive behaviour.

The ISO's mandate is to promote an efficient, fair and openly competitive market for electricity and to ensure that the rules, guidelines and conventions that govern the Alberta electric industry are sufficient to discourage anti-competitive practices. The market participant behaviour guidelines are intended to outline the types of activities that constitute anti-competitive behavior so market participants may avoid them.

In monitoring the market, the ISO will, to the extent possible, avoid interfering with competitive price signals. Prices will be allowed to rise to levels determined by competition in periods of scarcity, and to fall to levels determined by competition in times of surplus. However, market participants who violate the market participant behaviour guidelines and thereby impair or threaten to impair the efficiency, fairness or competitiveness of the Alberta electricity market will be subject to administrative penalties, ISO fees and other sanctions as the ISO deems appropriate.

Efficiency requires that there be no misallocation of resources. Fairness requires that everyone is working on a level playing field. Competitiveness requires that market participants act independently of one another in terms of pricing and output decisions and in such a way that their actions do not interfere with another market participant’s access to the Alberta electricity market.

Market power is the ability of a particular market participant or group of market participants to influence the market price. The ISO is concerned that the abuse of market power could distort the market price and render it less effective as a market signal. In turn, this could upset the competitiveness and efficiency of the entire market.

Market participants are responsible for ensuring that their employees and agents comply with these market participant behaviour guidelines.

1.10.2 Undesirable Practices

Specific behaviours and activities can have an adverse impact on the electricity market.

Undesirable practices involve various behaviours and activities that may impact adversely upon the fair, open and efficient operation of the market. If it is determined that a market participant has attempted to, or has compromised, directly or indirectly, the fair, open or efficient operation of the market, the ISO will take the most appropriate action in the situation, within the authority granted in the Act, and the ISO rules. Undesirable practices include, but are not limited to the specific practices below:

a) Sharing Competitive Information
A fair, efficient and openly competitive market requires that there be no preferential sharing of non-public information. Non-public information includes, but is not limited to, financial, technical or operational information, business plans and strategies or policies and procedures that could influence the market decisions of other market participants. Non-public information shall not be passed to, or obtained from, other market participants, affiliates or agents, either directly or indirectly (through common personnel or otherwise) unless specifically permitted by the ISO.

Permission may be received through the appointment of an agent under rule 1.8, or may be permitted through other ISO rule provisions. If the preferential sharing of non-public information is not between a market participant and its agent, or it is not otherwise permitted under the ISO rules, then a market participant may request specific permission from the ISO. The request must outline the nature of the information being shared, the reason for sharing the information and the request must be duly authorized by all parties sharing information. The ISO will either approve the request or the ISO may deny the request if it has been determined that the sharing of information would not be in the best interests of a fair, efficient and openly competitive market. Where the ISO has approved the request for special permission, the ISO will publish the names of the parties receiving approval.

Unless specifically permitted by the ISO, any information to be shared with other market participants, affiliates or agents shall be made available to all other market participants simultaneously and on a non-preferential basis.

b) Abuse of a Dominant Position

When a market participant in a dominant position exploits its market power in a way that adversely impacts upon the efficient, fair and openly competitive operation of the market, it will be considered an abuse of dominance. Acts which constitute an abuse of dominance include, but are not limited to, the following:

i) Preemption of or physical withholding of facilities or energy required by another market participant to participate in the Alberta market, so as to adversely impact upon the efficient, fair and openly competitive operation of the market;

ii) economically withholding energy by employing offering strategies so as to adversely impact upon the efficient, fair and openly competitive operation of the market.

c) Other Practices

Any other behavior or activity which may impact adversely upon a fair, open and efficient market could be considered an undesirable practice. If the ISO detects conduct that appears inconsistent with a competitive market, and which would cause a material change in price, the ISO may impose conditions to prevent the market participant from engaging in such conduct.
2. PRUDENTIAL REQUIREMENTS AND ISO FEES

2.1 Prudential Requirements

2.1.1 Setting of Prudential Requirements

The ISO is responsible for determining what a pool participant must provide to the ISO for financial assurance for transactions related to power pool settlement.

A pool participant will meet and maintain such financial and other prudential requirements as the ISO deems appropriate to ensure that the pool participant is and remains of sufficient financial standing to meet its financial obligations. The prudential requirements include, without limitation, those set out in Appendix 3.

2.1.2 Review and Reassessment

A pool participant may be required to provide replacement or additional security.

The ISO may review and reassess the adequacy of the financial security or credit rating provided by a pool participant from time to time and may direct the pool participant to provide replacement or additional financial security in accordance with its new determination as to the adequacy of the prudential requirements for that pool participant. The replacement or additional financial security must be provided within 2 business days of the direction.

2.1.3 Confidentiality

All information provided by a market participant in relation to its financial standing and designated by the market participant as confidential will be treated by the ISO as confidential information in accordance with rule 10.9.

2.2 ISO Fees

2.2.1 Submission and Approval of Budgeted Costs

Each year, the ISO prepares and submits a budget to the ISO board.

a) Prior to the beginning of each financial year, the ISO will prepare and submit to the ISO board a budget for the financial year.

b) In preparing the budget, the ISO will take into account the following:

i) any revenue shortfall or excess from the previous financial year;

ii) anticipated capital, and operating and maintenance costs for the ISO for the forthcoming financial year;

iii) amounts collected under the ISO tariff; and

iv) such other costs as the ISO considers appropriate.

c) The manner in which the ISO recovers the approved budget costs, other than those included in the ISO tariff, is defined in rules 2.2.2, 2.2.3, 2.2.4, 2.2.5, 2.2.9 and the Schedule of ISO fees.
2.2.2 Determination of Annual Pool Participation Fees

An annual participation fee may be charged to pool participants at the beginning of each year.

a) In order to recover, in whole or in part, projected costs pursuant to an approved budget, the ISO may determine an annual pool participation fee for pool participants for the forthcoming financial year. An annual pool participation fee as set shall not be a barrier to participation in the power pool. The pool participation fee is detailed in the Schedule of ISO fees.

b) The ISO will collect such pool participation fee in a lump sum payment at the beginning of the financial year.

c) The ISO shall suspend the existing bids or offers of, and shall cease to accept further bids or offers from, any pool participant who has not paid the required annual pool participation fee required for a year, within twenty business days after the ISO has issued the pool statement including such fee to the pool participant. If, within a further twenty business day period the pool participant has not paid the outstanding amount of the annual pool participation fee, then the pool participant shall cease to be a pool participant under these rules.

The issuance of the pool participation fee on an annual basis is outlined in rule 8.4.2 c). The pool participation fee is detailed in the Schedule of ISO fees.

2.2.3 Registration Fee

A non-refundable fee may be charged upon application to the ISO.

The ISO may also set and levy and registration fee to be applied to recover the costs of processing an application for participation. The fee is non-refundable whether or not the application is granted. The registration fee is detailed in the Schedule of ISO fees.

2.2.4 IT Service Charge

The ISO may charge a fee to provide information system queries on data that may be provided to interested parties as permitted within the ISO rules. The ISO must provide the interested party an estimated date for when the information may be provided. The fee is detailed in the Schedule of ISO fees.

2.2.5 Other Services

The ISO may charge fees for other services, on a cost recovery basis, based on the agreement or terms specified between the ISO and the other party.

2.2.6 Load Settlement Costs

The ISO shall collect costs associated with load settlement duties as described in the Act. The costs will be allocated proportionately to each LSA on a forecast annual basis, and reconciled to actual costs and proportions at the end of each year. The forecast will be based on ISO budgeted costs and proportions will be based on the percentage of load settled by each LSA in the prior calendar year.
3. OFFERS, BIDS, ANCILLARY SERVICES AND ASSET DECLARATIONS

3.1 Purpose of Rule

The purpose of this rule is to prescribe the process and conditions by which a pool participant submits offers, bids and provides other asset declarations.

3.2 Who Submits an Offer or Bid

Pool participants submit offers and bids for an asset opposite their name in the ISO asset list.

a) In accordance with rule 3.5.3.1 a), a pool participant with an active source asset must submit an offer to the power pool. In accordance with rule 3.5.4.1, a pool participant with an active sink asset may submit a bid to the power pool.

b) Pool participants submit offers or bids in respect to an asset listed opposite their name in the ISO asset list but not otherwise, unless they are representing a pool participant as an agent, approved under rule 1.8.

3.3 How to Submit an Offer, Bid, Operating Constraint or Ancillary Service Declaration

Submissions are done in accordance with protocols.

a) Offers, bids, operating constraints and ancillary service declarations must be submitted in accordance with the manner prescribed by the pool participant manual and rule 3.4.

b) Offers, bids, operating constraints and ancillary service declarations submitted to the ISO by means other than the primary electronic means must be compatible, in the ISO’s opinion, with the ISO’s computer software and procedures and in accordance with alternative means listed in rule 3.4.

3.4 Submission Protocols

Pool participants provide submissions electronically. To submit by other means (i.e., facsimile, telephone, courier), ISO participants must follow certain protocols.

Unless otherwise agreed by the ISO, pool participants must submit information according to the ISO rules by the following means:

a) by electronic submission facilities; or

b) if it is not possible to do so by electronic submission facilities, then by facsimile only if the ISO is advised by telephone to expect the facsimile prior to it being sent; or

c) if it is not possible to do so by electronic submission facilities or by facsimile, then by telephone only if the content of the telephone conversation is confirmed by facsimile within one half hour after the telephone conversation takes place; or

d) if it is not possible to do so by electronic submission facilities, by facsimile or telephone, then by courier.

The electronic address of the ISO, the facsimile number, and telephone number of the system controller, are detailed in Appendix 4.

The pool participant sending the information is responsible for ensuring and confirming that the
3.5 Offers and Bids

3.5.1 Block Allocations

The ISO will allocate to:

a) each pool participant who has registered a source asset, one asset per source asset or registered aggregate asset, comprised of seven blocks and one DDS block.

b) each importer, one asset per interconnection, with each asset comprised of one block with a $0.00 offer price.

c) each pool participant with energy consumption within a settlement zone, at least one asset for each such zone, with each asset comprised of seven blocks.

d) each exporter, one asset per interconnection with each asset comprised of one block with a $999.99 bid price.

3.5.2 Submission Timing

a) Any pool participant submitting an offer or bid for an asset must submit such offer or bid for the next trading day to the ISO before 12:00 hours of the day before the next trading day.

b) A pool participant may submit an offer or bid for the forecast scheduling period.

c) In accordance with rule 3.7, a pool participant may submit a standing offer or standing bid.

d) Any pool participant submitting a DDS offer for an asset may submit such offer to the ISO at any time prior to two hours before the start of any settlement interval.

3.5.3 Offers

A pool participant’s offer for each source asset must consist of price in $/MWh and quantity in MW for each block allocated to the source asset.

3.5.3.1 Submitting Offers

a) A pool participant with a source asset that has a maximum capability of 5 MW or greater must submit an offer for such asset.

b) The quantity in MW of each such offer must total the maximum capability of the source asset.

c) The available capability (MW) for each source asset must be stated. Available capability must equal the maximum capability, unless the pool participant has submitted an acceptable operational reason with the offer.

d) A pool participant must submit whether each block of its offer is a flexible block or...
3.5.3.2 Mandatory Energy Restatements

a) A pool participant who has submitted an offer must submit an energy restatement restating the available capability of the source asset for the applicable hours in the trading day, as soon as reasonably practicable, if there is a change to the available capability.

The energy restatement is subject to the following conditions:

1) If the restated available capability is reduced, then the quantity (MW) reduction will be applied to the blocks in the current submission in order of descending price;

2) If the restated available capability is increased, then the quantity (MW) increase will be applied to the blocks in the current submission in order of ascending price.

b) A pool participant who has submitted an offer must submit a revised offer for its asset redistributing the quantity (MW) to represent the operating state of the asset, as soon as reasonably practicable, if all of the following conditions are met:

i) the asset can no longer comply with the pool participant’s current submission;

ii) an energy restatement under a) cannot reasonably accommodate the asset’s operating state; and

iii) the pool participant can no longer submit a price restatement in accordance with rule 3.5.3.3.

c) A pool participant must submit the reason or reasons for submitting an energy restatement in accordance with rule 3.5.3.2. A pool participant must record and provide to the ISO, if requested and within a reasonable time from such request, the basis on which it determined that there was an acceptable operational reason.

3.5.3.3 Voluntary Price Restatements

a) A pool participant who has submitted an offer may submit a price restatement prior to two hours before the start of a settlement interval within the trading day.

b) A price restatement is a revised offer of an asset which restates the price in $/MWh or the quantity in MW or both, for each block allocated to a pool participant’s source asset. Notwithstanding the foregoing, a price restatement cannot result in a change to the maximum capability or the available capability of the asset.

3.5.3.4 Additional Information

a) Each pool participant who has submitted an offer must submit operating constraints with respect to each generating asset, including the following:

i) ramp rate;

ii) the time required by the generating asset to synchronize with the AIES from
its off-line state;

iii) minimum stable generation, and

iv) other, as reasonably requested by the ISO

b) A pool participant must submit to the ISO any changes to the operating constraints of such generating asset as soon as reasonably practicable.

3.5.3.5 Implementation of Offers

a) The ISO will implement revisions to offers in the manner outlined in rules 3.5.3.2 and 3.5.3.3.

b) When a source asset has been issued both an ancillary service dispatch and an energy market dispatch for the same period, the ISO will deduct the quantity of MW in such ancillary service dispatch from the available capability of such asset for the purposes of determining the quantity of MW of the energy market dispatch. Such determination will be undertaken in the same manner as energy restatements pursuant to rule 3.5.3.2 a).

c) When a source asset has been issued a DDS dispatch, the ISO will deduct the quantity of MW in such DDS dispatch from the in merit amount in the source asset’s offer for the purposes of determining the quantity of MW of the energy market dispatch. The ISO will deduct such quantity from the offer in ascending order starting with the lowest priced block of such source asset.

3.5.4 Bids

A pool participant’s bid for each sink asset must consist of price in S/MWh and quantity in MW for each block allocated to the sink asset.

3.5.4.1 Submitting Bids

A pool participant with a sink asset may submit a bid for such asset.

3.5.4.2 Mandatory Energy Restatements

a) A pool participant who has submitted a bid must restate the available capability of the asset for the applicable hours in the trading day, as soon as reasonably practicable, if there is a change to the available capability.

The energy restatement is subject to the following conditions:

1) If the restated available capability is increased, then the increase will be added to the current submission’s lowest priced operating block;

2) With the exception of the current submission’s lowest priced operating block submitted for the asset, each of the remaining block sizes may not be increased beyond the amount of each specified in the current submission;

3) If the restated available capability is decreased, then the MW reduction will be applied to the asset’s operating blocks in the current submission in order of ascending price.
4) Subsequent energy restatements which:
   
   i)  increase the available capability at which the asset will be available, will be re-applied to the current submission blocks in order of descending price;
   
   ii) decrease the available capability will continue to be applied to the current submission blocks in order of ascending price;

   b) A pool participant who has submitted a bid and whose asset meets all of the following conditions, must submit a revised bid, as soon as reasonably practicable, redistributing the quantity (MW) to represent the operating state of the asset if:
      
      i) the pool participant or asset cannot comply with the bid
      
      ii) the pool participant can no longer submit a price restatement in accordance with rule 3.5.4.3 for such asset.

   c) A pool participant must submit the reason or reasons for submitting an energy restatement of an export asset in accordance with rule 3.5.4.2. A pool participant must record and provide to the ISO, if requested and within a reasonable time from such request, the basis on which it determined that there was an acceptable operational reason.

3.5.4.3 Voluntary Restatements

a) A pool participant who has submitted a bid may submit a price restatement prior to two hours before the start of a settlement interval within the trading day.

b) A price restatement is a revised bid of an asset, which restates the price in S/MWh or the quantity in MW or both, for each block allocated to a pool participant’s sink asset

3.5.4.5 Additional Information

a) A pool participant must submit operating constraints with respect to each bid for an intra-Alberta sink asset, including the following:
   
   i) ramp rate;
   
   ii) the time required to respond to a dispatch; and
   
   iii) other, as reasonably requested by the ISO.

b) A pool participant must submit to the ISO any changes to the operating constraints of such intra-Alberta sink asset as soon as reasonably practicable.

3.5.4.5 Restatement Implementation

The ISO will implement revisions to bids in the manner outlined in rules 3.5.4.2 and 3.5.4.3.

3.5.5 Dispatch Down Service
3.6 Ancillary Service Declarations

3.6.1 Purpose of Rule

Certain processes and procedures for ancillary services must be followed to ensure the AIES is operated in a safe, economic and reliable manner.

In order to ensure the system controller is able to operate the AIES in a safe, economic and reliable manner, the system controller has expectations that services will be provided, from those pool participants that have agreed to supply ancillary services. These expectations are based on the declarations provided by and the ancillary service dispatches accepted by ancillary service providers. The purpose of this rule is to define the process whereby the ancillary service providers declare to the system controller the services they are capable of.
providing and the performance capabilities that the system controller can expect.

### 3.6.2 Ancillary Service Provider Declaration

*Ancillary service providers are obliged to declare the availability of the services that they can provide.*

Ancillary service providers must declare to the system controller on an ongoing basis for each asset from which they intend to provide ancillary services, the abilities of that asset to provide ancillary services. Ancillary service providers are required to submit an initial declaration for each asset and thereafter are required to restate changes in the capability of the asset to deliver the service. Information, which has been declared, remains in effect until the pool participant submits a change through the restatement process. The services to be declared are as follows:

1. **Spinning reserve** (SR)
2. **Supplemental reserve generation** (SUPG) or **supplemental reserve load** (SUPL)
3. **Regulating reserve** (RR)
4. Voltage support (VS)
5. **Power system stabilizers** (PSS)
6. **Automatic voltage regulator** (AVR)
7. Fast acting **remedial action scheme for loads** (RASL)
8. **Black start capability** (BSC)
9. **Transmission must-run** service (TMR)
10. **Remedial action scheme** for generators (RASG)

### 3.6.3 Restatements

*Pool participants will restate ancillary service capabilities under certain circumstances.*

a) **Pool participants** may restate the declared capabilities of an asset prior to an ancillary services directive being issued by the system controller.

b) **Pool participants** must restate the capability of an asset, in a timely manner, if there is a material change in capability to supply the ancillary service.

c) **Pool participants** must restate in the manner prescribed in software and procedures.

### 3.6.4 Records of Ancillary Service

*The system controller will maintain ancillary service records for auditing and verification purposes.*

The system controller is responsible for ensuring there is a record of asset declarations
3.7 Standing Offers and Bids

Pool participants submit offer and bids that stand, unless otherwise changed by the pool participant.

a) A pool participant submits a standing offer or standing bid to the ISO by submitting an offer or bid for the last day in the forecast scheduling period. The standing offer or standing bid is valid until changed by the pool participant.

b) The ISO will use the last standing offer or standing bid and the available capability submission data for the day following the forecast scheduling period.

c) An asset for which a pool participant does not submit a bid in accordance with rule 3.5.4 will receive a default standing bid and be declared unavailable for the next trading day and for the forecast scheduling period by the ISO. The ISO will assign a $999.99 price and zero MW volume to bid assets for all settlement intervals of the next trading day. MW volume and price of the asset may be adjusted during the trading day in accordance with rules 3.5.4.2 and 3.5.4.3.

3.8 Registration of Aggregate Assets

A pool participant may, upon formal notification and with the approval of the ISO, submit single offers or bids for a registered aggregate asset.

3.9 Validity or Invalidity of Offers and Bids

To be considered valid, offers and bids must meet specific price tests, and be acknowledged by the ISO.

a) Any offer price or bid price must be specified to the nearest cent per MWhh, must be greater than or equal to $0/MWh and must be less than $1000/MWhh.

b) The ISO will, as soon as reasonably practicable following the receipt of an offer or bid, send to the pool participant who submitted the offer or bid:

i) Acknowledgment of receipt of the offer or bid; and

ii) Notification that the offer or bid is either valid or invalid with respect to these rules and the information required in accordance with software and procedures. If an offer or bid is, in the opinion of the ISO, invalid, such notification will include explanation why the offer or bid is not accepted.

c) A pool participant’s DDS offer for each source asset must consist of price which shall be an amount not lower than -$999.99 nor higher than $0.00.

3.10 Reference Price

a) The system controller may, when the system marginal price is below or equal to the reference price, dispatch DDS in accordance with rule 6.3.6. In no event may the reference price be used to set the system marginal price.

b) The reference price is calculated by the following formula:

\[
\text{Reference Price} = \text{Average of Previous 3 Days' Prices} \times \text{Forecast Multiplier}
\]

and restatements sufficient to meet audit and verification requirements of the ISO.
**reference price** = 12.5 gigaJoules multiplied by the Gas Price

Where:

Gas Price is the monthly Canadian natural gas price for the month in $/gigaJoule at AECO C and Nova Inventory Transfer, the Alberta Bidweek Spot Price, as published on www.ngx.com, and also in the “Canadian Gas Price Reporter.” The ISO will use reasonable endeavors to use the current month’s Gas Price beginning at midnight on the second business day of the same month. The previous month’s Alberta Bidweek Spot Price will be used until the Gas Price for the current month can be updated by the ISO.

c) If the Gas Price is no longer available on www.ngx.com, the “Canadian Gas Price Reporter”, or otherwise, then the ISO shall approve a reasonably equivalent gas price that is to be used by the ISO for purposes of determining the reference price. Subsequently, the ISO shall change the rules to indicate the report from which the Gas Price shall be used to determine the reference price.

d) The ISO will use reasonable endeavors to ensure that the correct Gas Price is used to calculate the reference price. If a price other than the Gas Price identified in rule 3.10 a) is used to calculate the reference price, then the ISO will correct the Gas Price as soon as practicable. The pool price will not be modified due to any errors in the reference price.
4. NET SETTLEMENT INSTRUCTIONS

4.1 Purpose of Rule

The purpose of this rule is to prescribe the process and conditions by which net settlement instructions of eligible parties will be carried out.

4.2 Acceptance of Net Settlement Instructions

If an eligible pool participant meets submission requirements for registering net settlement instructions, then the ISO will net the MWh volume against metered volumes for purposes of settlement.

For the purposes of power pool settlements, the ISO will net out net settlement instruction data prior to calculating the power pool settlements with pool participants. The ISO shall carry out settlement taking into account net settlement instructions as set out in rule 8.

To register a net settlement instruction the following conditions must be met:

a) The net settlement instruction is registered for a pool participant in good standing.

b) Pool participants and forward market operators must submit net settlement instruction data to the ISO complying with the requirements of rule 4.3, 4.4 and 4.6.

c) The net settlement instruction is registered for a pool participant in respect to an asset listed opposite its name in the ISO asset list but not otherwise.

d) A net settlement instruction may be registered with the ISO for any asset, provided that:
   i) the net settlement instruction is submitted by a forward market operator; or
   ii) both the source asset and the sink asset are metered assets; or
   iii) either the source asset or the sink asset is a metered asset; or
   iv) the asset is being used in the direct transfer of a MAP product by a MAP buyer or the transferee of a MAP buyer.

4.3 Submitting Net Settlement Instruction Data

4.3.1 Data Provided Directly from Pool Participants

Specific information about the net settlement instruction must be provided to the ISO not less than 20 minutes before the beginning of the related settlement interval.

The seller or purchaser must submit net settlement instruction data not less than 20 minutes before the beginning of the settlement interval in which the net settlement instruction is to take effect. Net settlement instruction data shall include the following:

a) the pool participant who is the seller;

b) the source asset designated by the seller;

c) the pool participant who is the purchaser;

d) the sink asset designated by the purchaser;
4.3.2 Data Provided by Forward Market Operators

The ISO and forward market operator agree to a data submission format.

The net settlement instruction data is to be received by the ISO in the format agreed to within the context of the operating agreement arranged between the forward market operator and the ISO.

4.4 Acknowledging Net Settlement Instruction Data

The pool participant who is counter-party to the net settlement instruction must acknowledge the information not less than 20 minutes before the beginning of the related settlement interval.

For net settlement instruction data provided by pool participants, the purchaser or seller who did not submit the net settlement instruction pursuant to rule 4.3.1, must acknowledge the net settlement instruction not less than 20 minutes before the beginning of the settlement interval in which the net settlement instruction is to take effect.

Net settlement instructions provided by forward market operators do not have to be acknowledged by the pool participants.

4.5 De-registering Net Settlement Instructions

4.5.1 Pool Participant Initiated De-registration

Pool participants must provide relevant net settlement instruction information at least 3 days prior to a net settlement instruction de-registration taking effect.

The seller, the purchaser, or both may submit an electronic notice to de-register a net settlement instruction at least 3 business days prior to the day which the net settlement instruction de-registration is to take effect. The notice must clearly state:

a) that the net settlement instruction is to be de-registered;

b) the net settlement instruction number;

c) the pool participant who is the seller;

d) the source asset;

e) the pool participant who is the purchaser;

f) the sink asset; and

g) the date and settlement interval the de-registration is to take effect.

When only one pool participant has sent a notice to de-register the net settlement instruction, the ISO will notify the other pool participant that the net settlement instruction is being de-registered within one business day of receiving such notice.
4.5.2 Compulsory Pool Participant Initiated De-registration

A pool participant must de-register a net settlement instruction if the asset ownership changes or if a pool participant terminates participation in the ISO.

A pool participant is required to provide an electronic notice of the de-registration of a net settlement instruction at least 3 business days in advance of:

i) An asset ownership change; or

ii) A voluntary termination of participation by a pool participant under rule 1.5.

4.5.3 ISO Initiated De-registration

The ISO will de-register net settlement instructions under specific violations of the ISO rules.

For purposes of power pool settlements, the ISO may initiate the de-registration of net settlement instructions under specific circumstances:

a) Involuntary termination of participation under rule 1.4;

b) A pool participant fails to comply with the compulsory de-registration of a net settlement instruction under rule 4.5.2;

c) A pool participant defaults on payment under rule 8.5.1; or

d) For net settlement instructions impacting prudential requirements, a pool participant fails to comply with an ISO request to increase financial security requirements within 2 business days of such request under rule 2.1.2. The ISO will use reasonable efforts to allow the pool participant to specify which net settlement instruction(s) is/are to be de-registered and de-register them accordingly. If the ISO is unable to obtain direction from the pool participant on demand, then the ISO will de-register the net settlement instructions registered for the pool participant beginning from the most recent date(s) the net settlement instructions were registered to the earliest date, only until the prudential requirements have been met.

The ISO will use reasonable efforts to notify both pool participants 2 business days prior to a net settlement instruction de-registration to take effect.

4.6 Net Settlement Instruction Protocols

Pool participants must submit net settlement instructions electronically. To submit net settlement instructions by other means (i.e. electronic notice, facsimile, courier), pool participants must follow certain protocols.

Unless otherwise agreed by the ISO or provided for in these rules, pool participants must submit net settlement instruction information by the following means:

a) by electronic submission facilities;

b) if it is not possible to do so by electronic submission facilities, then by e-mail only if the ISO is advised by telephone to expect the electronic notice once it has been sent;
c) if it is not possible to do so by electronic submission facilities or by e-mail, then by facsimile only if the ISO is advised by telephone to expect the facsimile once it has been sent; or

d) if it is not possible to do so by electronic submission facilities, e-mail or facsimile, then by courier.

The communication information for the ISO is detailed in Appendix 4. The pool participant sending the information is responsible for ensuring and confirming that the ISO received the revised information, and ensuring that the other party has submitted an acknowledgement for the acceptance of the net settlement instruction to the ISO, where required.
5. ENERGY MARKET SCHEDULING

5.1 Adequacy Assessment

An adequacy assessment will be prepared by the ISO for each settlement interval for the trading day and for the 6 remaining days of the forecast scheduling period on the day preceding that trading day.

The ISO will:

a) review the offers, bids and forecasted load for the trading day as soon as practicable and will use reasonable efforts to review it no later than 18:00 of the preceding day.

b) assess the forecasted load requirement against the available supply throughout the preceding day and the trading day to account for changes in adequacy.

In accordance with the ISO supply shortfall operating policies and procedures, the ISO may direct or request generating assets if the the forecasted load requirement exceeds the available supply in any settlement interval.

5.2 Forecast Dispatch Price

The ISO will use reasonable efforts to publish a forecast dispatch price for each settlement interval no later than 70 minutes prior to the start of such settlement interval.

5.2.1 Determination of Forecast Dispatch Price

The forecast dispatch price for a settlement interval is the highest forecast asset marginal price of all assets forecast to be required to meet the forecast load requirement, using the expected energy market merit order for the settlement interval including importer operating blocks and the ISO expected import ATC for the interconnections for the settlement interval.

5.2.2 Determination of Forecast Asset Marginal Price

The forecast asset marginal price for a pool participant’s asset for each settlement interval will be set at the price specified for the price block in the pool participant’s offer or bid which corresponds to the forecast energy market dispatch level of the asset to meet the forecast load requirement.
6. DISPATCH AND DIRECTIVES

6.1 Asset Dispatching

The system controller will dispatch assets according to the rules and the terms and conditions of the bids and offers.

An asset will be dispatched within the terms and constraints set out in the ISO rules and the respective offer or bid associated with that asset.

6.2 Form of Dispatch and Directives

The system controller will follow specific guidelines in delivering a dispatch and a directive.

The specific communication form of a dispatch and an ancillary service directive is set out as follows:

6.2.1 Form of Communication

The system controller may, at any time, dispatch and give ancillary service directives in accordance with the rules. The primary form of dispatch and ancillary service directives from the system controller will be through the automated dispatch and messaging system. Secondary means of communication will be by voice, if the automated dispatch and messaging system is unavailable.

6.2.2 Communication Systems

Pool participants must provide acceptable methods of communication.

Unless otherwise authorized by the ISO, each pool participant must comply with the ISO Operating Policies and Procedures’ technical standards for operational voice communications and automated dispatch and messaging system.

If communication systems become unavailable, the pool participant and system controller shall take action to identify the cause of the interruption, and to restore the communication system.

6.2.3 Receiving and Implementing Directions

Each pool participant receiving dispatches must ensure that persons are available to receive and implement a dispatch.

Pool participants receiving dispatches shall ensure that persons are available to receive, and implement a dispatch delivered via the communication system described in rule 6.2.2, within the time period specified in the ISO Operating Policies and Procedures. The pool participant shall confirm a dispatch or directive by responding to the automated message, or in the case of a voice dispatch or directive, by repeating the dispatch or directive to the system controller.
6.2.4 Dispatch and Directive Records

The system controller will retain dispatch and directive records for a specified period.

The system controller shall retain an electronic record of all automated dispatch and messaging system dispatches, directives and responses suitable for audit purposes. In the case of voice dispatches, the system controller shall record on tape all voice conversations that occur on the communication systems. Dispatch and directive records shall be kept for no less than 45 days, and may be used to audit dispatches.

The system controller is responsible for ensuring there is a record of dispatches and directives sufficient to meet audit and verification requirements of the ISO and will retain electronic records for no less than one year.

6.2.5 Monitoring

The system controller reports and tracks the performance of ancillary service providers.

a) The ISO will monitor the declarations from ancillary service providers and the response to ancillary service dispatches and ancillary service directives for any significant changes, unusual activities or failures to comply.

b) The system controller will consult with ancillary service providers whose actions has not met the expectations as defined in rule 6.5.3.

c) The system controller will prepare regular reports on ancillary services.

6.2.6 Requests for Records

Pool participants may request to audit records for specific assets.

Pool participants may make a written request to audit a record of a dispatch or directive. The pool participant's request shall specify the asset or assets affected, and the approximate date and time of the dispatch or directive which is to be audited. The request must be received by the ISO no more than 45 days from the date of the dispatch or directive.

In the case of voice dispatches and directives, the ISO shall copy the pertinent portions of the voice record, which shall be sent to the requesting pool participant. If the portion of the voice recording is unsatisfactory to the pool participant in the audit, the pool participant may request, in writing to the ISO, that the full voice recording be subject to a dispute.

Voice records that have been requested for an audit will be stored by the ISO until any disputes arising from that dispatch or directive have been resolved.

| 6.3 Energy Market Dispatch and Directives |

6.3.1 Factors to Take Into Account

The system controller must take certain information into account when determining an energy market dispatch.
In determining an energy market dispatch, the system controller must take into account:

a) All information submitted in the offers and bids for all assets in the energy market merit order;
b) The parameters submitted for assets under the requirements of the rules.

6.3.2 Energy Market Dispatch Content

The system controller will provide the pool participant specific information in the energy market or DDS dispatches.

The information provided to the pool participant receiving an energy market dispatch or DDS dispatch shall include the information set out below, but shall not include any information that the system controller deems to be competitive market information:

a) Name of the asset;
b) The instruction (dispatch on, dispatch off, DDS dispatch on, or DDS dispatch off) for the asset;
c) Specific MW value to which the asset is receiving an energy market dispatch or DDS dispatch;
d) Date and time the energy market dispatch or DDS dispatch is to take effect.

6.3.3 Interconnection Dispatching

Interconnection scheduling is subject to the operating procedures of other control areas. Energy market dispatch will be in the same form for all pool participants. NERC e-tags are required for interchange transactions.

An energy market dispatch on the interconnections must take these procedural conditions into account:

d) The physical scheduling of energy on an external interconnection is governed by the operating procedures agreed to by the ISO with the control area operator at the other end of the interconnection.
e) The system controller will use the same form of energy market dispatch as provided in rule 6.3.2.
f) Importers and exporters must make reasonable efforts to procure transmission service for the offered available capability.
d) The pool participant must submit electronic tags (e-tags) for each interchange transaction.
e) The sum of the importer’s e-tag quantities may only be less than the available capability stated two hours before the start of the settlement interval if the importer has an acceptable operational reason. Each importer who offers energy must submit an energy restatement in accordance with rule 3.5.3.2 prior to the settlement interval in which the offer is to take effect, if the sum of the importer’s e-tag quantities (MW) for such settlement interval is less than the...
6.3.6 Dispatch Down Service Dispatch

f) The sum of the exporter’s e-tag quantities may only be less than the available capability stated two hours before the start of the settlement interval if the exporter has an acceptable operational reason. Each exporter who bids energy must submit an energy restatement in accordance with rule 3.5.4.2 prior to the settlement interval in which the bid is to take effect, if the sum of the exporter’s e-tag quantities (MW) for such settlement interval is less than the available capability. Unless otherwise requested by the system controller under rule 6.3.7, the sum of the e-tag quantities (MW) cannot be greater than the available capability offered two hours before the start of a settlement interval.

6.3.7 Equal Price Offers or Bids

The ISO will follow certain guidelines to manage equal price offers or bids for assets during a settlement interval.

If a price of an offer or bid submitted in respect of an asset for a settlement interval is identical to the corresponding price of another offer or bid in respect of another asset for the same settlement interval, the ISO will:

a) Determine the energy market dispatch by considering applicable constraint information for each of the assets, and
b) If equal offers or bids remain; then as necessary proportioning participation amongst the assets within the settlement interval to the extent that identified offer or bid constraints allow and in a manner determined appropriate by the ISO.

6.3.5 Long Lead Time Energy Dispatch

a) A pool participant with a generating asset that requires more than one hour to synchronize must submit to the ISO the time of day that such generating asset will be synchronized to the AIES.

b) Such time of day must represent the physical condition of the generating asset as determined by either the time of the last notice of the generating asset’s intention to start or the time of the last dispatch off, as it relates to the operating constraint submitted to the ISO under rule 3.5.3.4. The time of day must be submitted at least two hours prior to the beginning of the settlement interval.

c) In accordance with ISO operating policies and procedures, the system controller may request a pool participant to start up a generating asset that requires greater than one hour to start up by a specified settlement interval, if the adequacy assessment pursuant to rule 6.3.6 forecasts insufficient supply to meet AIES demand during and after such settlement interval.

d) A pool participant who has received a request pursuant to rule 6.3.5 c) must notify the system controller as soon as reasonably practicable after the request whether it intends to start up the generating asset.

e) A generating asset that has indicated its intention to start may withdraw its intention to start up two hours prior to the start of the settlement interval.

6.3.6 Dispatch Down Service Dispatch

a) Determine the energy market dispatch by considering applicable constraint information for each of the assets, and
b) If equal offers or bids remain; then as necessary proportioning participation amongst the assets within the settlement interval to the extent that identified offer or bid constraints allow and in a manner determined appropriate by the ISO.
6.3.6.1 Eligibility

Eligibility may be determined at the sole discretion of the ISO.

a) Subject to rule 6.3.6.1 b), a source asset is eligible to be dispatched off in the energy market merit order for DDS when the pool participant submits an offer for DDS to the ISO in accordance with rule 3.5.

b) A source asset is not eligible to be dispatched off in the energy market merit order for DDS when:

i) such dispatch would cause transmission must-run to be required.

ii) such dispatch would be in an area where one or more source assets are constrained down.

iii) such dispatch would impair the source asset’s ability to comply with an ancillary service dispatch or directive.

iv) the pool participant is unable to respond to such dispatch.

6.3.6.2 Conditions for Dispatch Down Service Dispatch

a) If at any time:

i) the system marginal price is less than or equal to the reference price, and

ii) a source asset has been issued a transmission must-run dispatch or directive, and

iii) the transmission must-run quantity (MW) is greater than constrained down directive quantity (MW) as calculated by the system controller.

then the system controller will dispatch off operating blocks in the energy market merit order that have offered eligible DDS.

b) Operating blocks will not be dispatched off in the energy market merit order for DDS when the system marginal price is greater than the reference price.

6.3.6.3 Determining Dispatch Down Service Dispatch Quantity

a) Subject to rule 6.3.6.3 b), the DDS dispatch quantity (MW) is the lesser of:

i) the transmission must-run quantity (MW) less the constrained down directive quantity (MW). The DDS dispatch quantity (MW) cannot be less than zero MW.

ii) the eligible quantity of DDS offers.

b) Operating blocks in the energy market merit order that have been dispatched off for DDS will be dispatched on by the system controller prior to dispatching operating blocks that are greater than the reference price.

6.3.6.4 Dispatching Dispatch Down Service
The system controller will use the same form of dispatch as provided in rule 6.3.2.

The system controller will determine which source assets will be dispatched for DDS in order of relative economic merit and eligibility considerations outlined in rule 6.3.6.1.

If a DDS offer is determined by the ISO to be ineligible to provide DDS and it is next in the order of economic merit, then the system controller will dispatch the next operating block in the energy market merit order for DDS that is eligible to provide DDS.

6.3.7 Supply Shortfall Directive

If during the trading day the system controller determines that the forecasted AIES load requirement exceeds the available supply in any settlement interval, the system controller will use ISO supply shortfall operating policies and procedures to issue directives as required.

6.3.8 Supply Surplus Directive

If during the trading day the system marginal price is determined by a $0 operating block, the system controller will use ISO operating policy and procedures to issue directives as required for the applicable settlement intervals. Pool participants shall provide the ISO with asset information necessary to carry out the operating policy and procedure.

6.3.9 Declaration of Pool Price

6.3.9.1 Pool Price Determination

The pool price for any settlement interval will be based on the time weighted average of the 60 one minute system marginal price values determined for each minute of the settlement interval. The system marginal price at each minute is:

a) the highest eligible asset marginal price of all assets required to meet AIES demand; or

b) $1000/MWh, if to maintain system security the system controller had directed an involuntary curtailment of non-price responsive load in accordance with rule 6.8; or

c) as prescribed in rule 6.9 in the event of an energy market suspension.

6.3.9.2 Determination of Asset Marginal Price

The asset marginal price for a pool participant's asset for each minute of a settlement interval will be set at the price specified for the price block in the pool participant's offer or bid for such asset which corresponds to the energy market dispatch of such asset at the time the energy market dispatch was issued and accepted by the pool participant, pursuant to the following conditions:

a) The asset is not used to calculate the system marginal price if the price block for that asset has not received an energy market dispatch in the settlement interval.

b) The asset marginal price of an interchange transaction is not used to set the system marginal price.

c) The reference price is not used to set the system marginal price.
6.4 Ancillary Service Dispatch

6.4.1 Factors to Take into Account

The system controller will consider the necessary information to determine an ancillary service dispatch.

In determining the ancillary service dispatch, the system controller will take into account:

a) All information submitted in the declarations for all assets;

b) The applicable ancillary service merit order;

c) Any information supplied to the ISO in regards to ancillary services or transmission constraint information; and

d) The energy market, under extraordinary conditions or emergency procedures as outlined in the ISO Operating Policies and Procedures.

6.4.2 Ancillary Service Dispatch Content

The system controller will provide ancillary service dispatches to ancillary service providers specifying required services.

a) The system controller will, through an ancillary service dispatch, notify the ancillary service provider that they are “on notice” to supply an ancillary service. The specific form and content of the ancillary service dispatch will include the following information for:

i) Spinning Reserve (SR) (OPP 402)

   a) The asset being given an ancillary service dispatch

   b) The type of ancillary service to be supplied (SR)

   c) The amount of SR to be supplied (MW)

   d) The time the ancillary service dispatch is to take effect

ii) Supplemental Reserve Generation (SUPG) or Supplemental Reserve Load (SUPL) (OPP 402)

   a) The asset being given an ancillary service dispatch

   b) The type of ancillary service to be supplied (SUPG or SUPL)

   c) The amount of SUPG or SUPL to be supplied (MW)

   d) The time the ancillary service dispatch is to take effect

iii) Regulating Reserve (RR) (OPP 401)

   a) The asset being given an ancillary service dispatch
b) The type of ancillary service to be supplied (RR)

c) The amount of RR to be supplied (MW)

d) The time the ancillary service dispatch is to take effect

iv) Voltage Support (VS)

a) The ancillary service dispatch is deemed to have been issued when an asset is synchronized to the AIES and the AVR is placed in automatic

v) Fast Acting Remedial Action Scheme for Loads (RASL)

a) The type of ancillary service to be supplied (RASL)

b) The amount of RASL to be supplied (MW)

c) The time by which the RASL must be armed.

vi) Black Start Capability (BSC)

a) The ancillary service dispatch for BSC is deemed to have been issued when a declaration is submitted stating the asset's BSC availability.

vii) Remedial Action Scheme for Generators (RASG)

a) The asset being given an ancillary service dispatch

b) The type of ancillary service to be supplied (RASG)

c) The time by which the RASG must be armed.

The system controller shall notify the ancillary service provider when they are no longer required to provide a specific ancillary service.

b) The system controller will, through an ancillary service dispatch, notify the ancillary service provider that they are to supply transmission must-run (TMR) ancillary services. A TMR ancillary service dispatch will include the following information:

i) The asset being issued an ancillary service dispatch

ii) The type of ancillary service to be supplied (TMR)

iii) The amount of TMR to be supplied (MW)

iv) The time the ancillary service dispatch is to take effect

The system controller shall notify the ancillary service provider when they are no longer required to provide TMR.

6.4.3 Ancillary Service Provider Discretion
Ancillary service providers may decline an ancillary service dispatch.

a) The ancillary service provider may decline an ancillary service dispatch but must restate in a timely manner, the new capability of the asset to provide these services. The decline of an ancillary service dispatch will be recorded by the system controller and the ancillary service provider must provide reasons for declining the ancillary service dispatch.

The SC will record the declined ancillary service.

b) Acceptance of the ancillary service dispatch by the ancillary service provider is a commitment to provide the ancillary service requested by the system controller from the asset at the ancillary service dispatched capability. The owner of a facility retains the right to operate his facility as it deems prudent consistent with good electric operating practices.

6.5 Ancillary Service Directive

The system controller will issue directives for ancillary services to ensure the safe and reliable operation of the AIES.

a) When the system controller determines that the delivery of ancillary services are required to ensure the safe and reliable operation of the AIES, the system controller will issue an ancillary service directive to those ancillary service providers that have accepted an ancillary service dispatch.

b) Following an ancillary service directive for the delivery of spinning reserve or supplemental reserve, the system controller will, as soon as practicable, issue energy market dispatches to recover reserves. Within one hour of an ancillary service directive the system controller will either issue the ancillary service provider an energy market dispatch for the asset that received the ancillary service directive or notify the ancillary service provider that they are no longer required to provide for the ancillary service directive.

6.5.1 Ancillary Service Directive Content

The system controller will follow certain protocol when issuing an ancillary service directive.

The ancillary service directive will include the following information for:

a) Spinning Reserve (SR) (OPP 402)
   i) The asset being issued an ancillary service directive
   ii) The type of ancillary service to be supplied. (SR)
   iii) The amount of SR to be supplied (MW).

b) Supplemental Reserve Generation (SUPG) or Supplemental Reserve Load (SUPL) (OPP 402)
   i) The asset being issued an ancillary service directive
ii) The type of **ancillary service** to be supplied (SUPG or SUPL)

iii) The amount of SUPG or SUPL to be supplied (MW)

c) Regulating Reserve (RR)

i) This type of **ancillary service directive** is an automatic electronic signal that will ramp the asset within the **ancillary service dispatch** parameters.

d) Voltage Support (VS)

i) The asset being issued an **ancillary service directive**

ii) The amount of VS to be supplied (e.g. bus voltage setting)

e) Remedial Action Scheme for Loads (RASL)

i) This type of **ancillary service directive** is an automatic electronic signal that must immediately trip at least the amount of MW issued in the **ancillary service dispatch**.

f) Black Start Capability (BSC)

i) The asset being issued an **ancillary service directive**.

g) Remedial Action Scheme for Generators (RASG)

(i) This type of **ancillary service directive** is an automatic electronic signal that must immediately trip the generator issued the **ancillary service dispatch**.

The **system controller** will notify the **ancillary service provider** when the **ancillary service provider** is no longer required to provide a specific **ancillary service**.

6.5.2 Ancillary Service Provider Discretion

**Ancillary service provider must comply with an ancillary service directive, unless there is an immediate risk to personnel or equipment safety.**

**Ancillary service providers** are obligated to comply with an **ancillary service directive** unless there is immediate risk to personnel or equipment safety. If for any unforeseen reason an **ancillary service directive** cannot be complied with, the **ancillary service provider** will notify the **system controller** as soon as practicable and give the **system controller** the reason the **ancillary service directive** cannot be complied with. The **system controller** will log any non-compliance and the reasons for the non-compliance.

6.5.3 Ancillary Service Expectations

**When accepting an ancillary service dispatch and receiving an ancillary service directive, ancillary service providers must meet specific service expectations.**

The **system controller** will expect from the **ancillary service providers** that have accepted an **ancillary service dispatch**, that, when the **system controller** directs them to deliver an **ancillary service**, it will be delivered up to the **ancillary service dispatched** level.
In the management of ancillary service the system controller will expect the ancillary service providers to deliver:

a) **Spinning reserve, supplemental reserve** generation and **supplemental reserve load** (SR, SUPG, SUPL) – The amount of MW stated in the **ancillary service dispatch** will be provided within 10 minutes of an **ancillary service directive** unless there is immediate risk to personnel or equipment safety.

b) **Regulating reserve** (RR) – The **ancillary service provider** will provide the MW range at the **ramp rate** stated in the **ancillary service dispatch** for RR unless there is immediate risk to personnel or equipment safety.

c) **Voltage Support** (VS) – The **ancillary service provider** will provide voltage support within the MVAr range stated in their declaration when the **system controller** issues an **ancillary service directive** for VS unless there is immediate risk to personnel or equipment safety.

d) **Power System Stabilizers** (PSS) – The **asset** PSS will be in the state declared at all times.

e) **Automatic Voltage Regulator** (AVR) – The **asset** AVR will be in the state declared at all times.

f) **Remedial Action Schemes** for **Loads** (RASL) – The amount of MW stated in the **ancillary service dispatch** will be armed and trip when an **ancillary service directive** is issued.

### 6.6 Pool Participant Non-Compliance with Energy Market Dispatch and Directives

A pool participant may only supply energy if it has received either an energy market dispatch or a directive. A pool participant who has not received an energy market dispatch or a directive and supplies energy may be subject to sanction.

Pool participants must only deliver energy to the AIES pursuant to a dispatch or a directive issued by the system controller. Pool participants must not deliver energy to the AIES when the system controller has not issued a dispatch or a directive to do so.

In any circumstance where an energy market dispatch is not followed, the pool participant will be considered in non-compliance with the energy market dispatch. The pool participant must advise the system controller as soon as practical that the energy market dispatch will not be complied with and the pool participant will as soon as practicable submit a new offer or bid restating the status of the asset to reflect the non-acceptance of the energy market dispatch.

The pool participant must ensure that the generating asset is operated to the quantity (MW) dispatched or directed. The pool participant is in non-compliance when the quantity (MW) delivered varies by greater than ±5 MW from the highest energy market dispatch quantity (MW) or the directive quantity (MW). In the case of a generating asset that is supplying regulating reserve, the pool participant is non-compliant when the quantity (MW) delivered is less than the energy market dispatch quantity (MW) minus 5 MW or greater than the energy market dispatch quantity (MW) plus the regulation range plus 5 MW.

The pool participant is responsible for coordinating their energy and ancillary services submissions to ensure that such pool participant is able to comply with an ancillary service dispatch or energy market dispatch issued pursuant to such submissions.
Any non-compliance with an energy market dispatch or a directive is subject to review and may be subject to sanction by the ISO.

As an exception, energy delivered to the AIES while a pool participant is testing and/or commissioning a generating unit will be considered compliant, provided however, that the pool participant has complied with the ISO Operating Policies and Procedures and has received approval from the system controller.

6.7 System Security

6.7.1 Independent System Operator

The ISO has certain responsibilities for ensuring system security.

The ISO:

a) Must schedule to prevent a threat to system security.

b) May schedule out of the energy market merit order to prevent a threat to system security.

The system controller acting reasonably:

a) Shall at all times dispatch in a manner to prevent a threat to system security from occurring.

b) May dispatch out of the energy market merit order to prevent a threat to system security or to return the AIES to a safe and reliable state.

c) Will issue directives to market participants as required to prevent a threat to system security or to return the AIES to a safe and reliable state.

d) Must use reasonable efforts to promptly advise the transmission facilities owners in the event of a system emergency.

e) Must use reasonable efforts to promptly advise all pool participants in the event of a system emergency.

6.7.2 Market Participant

Market participants have certain responsibilities for ensuring system security.

The market participants must:

a) Use reasonable efforts to promptly advise the system controller upon becoming aware of any circumstance with respect to its facilities that could be expected to adversely affect system security or the AIES’s ability to deliver energy.

b) Use reasonable efforts to comply with directives from the system controller to prevent a threat to system security or to assist in the recovery from or return the AIES to a safe and reliable state.

6.8 Involuntary Load Curtailment
Wire owners will curtail demand when directed by the system controller.

During AIES conditions when AIES demand and regulating reserve cannot be met through dispatches within bid and offer constraints, the system controller may direct involuntary curtailment of demand by some or all wire owners. Wire owners will share the involuntary curtailment of demand based on the following:

\[
\text{Wire Owner Curtailment} = \frac{\text{Total Curtailment Required}}{\text{Wire Owner Demand}} \times \frac{\text{Total Demand of all Pool Purchasers}}{\text{Total Demand of all Pool Purchasers}}
\]

A wire services provider may be authorized by a wire owner to act on behalf of that owner.

6.9 Energy Market Suspension

6.9.1 Objective

*Under extraordinary circumstances, the system controller may suspend the normal operation of the energy market.*

The purpose of this rule is to prescribe the conditions under which the energy market may be suspended and the process to be used by the system controller to suspend the energy market.

The suspension of the energy market means that the system controller is not obliged to follow the energy market merit order nor the ancillary services merit order in issuing dispatches and that the system marginal price will be predefined and set in accordance with rule 6.9.4.

6.9.2 Initiating an Energy Market Suspension

*If deemed necessary, the system controller may suspend the energy market under specific events or conditions.*

In the determination of the system controller, the energy market may be suspended if any of the following conditions apply:

a) AIES has experienced a blackout;  

b) The AIES breaks up into two (2) or more electrical islands;  

c) The AIES is not in a secure operating state and in the judgement of the system controller is on the verge of a system emergency.  

d) The system controller is unable to issue dispatches under normal market operations because the:  

i) system controller is forced to abandon the workplace;  

ii) system controller is unable to access or utilize the market management tools such as the energy market merit order;  

e) An order is received from the EUB to suspend market operations;
6.9.3 Declaration of Energy Market Suspension

The system controller will issue a notice that the market has been suspended, and will notify pool participants using certain methods of communication.

The system controller will issue a notice that the energy market has been suspended. As soon as possible the system controller will update the notice indicating the reason for the suspension and, if practical, an expected time of return to normal energy market operation. In the case of a system emergency, the system controller will issue directives to market participants, as required, to return the AIES to a safe and reliable state.

If the system controller suspends the energy market for any of the reasons listed in rule 6.9.2, the system controller will notify pool participants. Communication prioritization will be to use methods that attempt to contact pool participants simultaneously. The system controller will use one or more of the following methods, to notify the pool participants that the energy market has been suspended:

a) Alberta Electric System Operator website through the system controller real time shift report and/or other message.

b) Fax to all pool participants.

c) Phone notifications via regular phone communication systems.

d) Phone notifications via back up phone communication systems to pool participants with this capability.

e) Automated dispatch and messaging system.

6.9.4 Pricing of Energy During Energy Market Suspension

During an energy market suspension, the ISO will follow certain protocol to set the system marginal price.

During periods of energy market suspension the system marginal price will be set at the following levels for the duration of the suspension, dependent upon the reason for the suspension:

a) The system marginal price will be set at $50/MWh in the event of a blackout.

b) The system marginal price will be set at the price of the last block receiving an energy market dispatch that was eligible to set pool price using the last available energy market merit order prior to the energy market suspension in the event that:

i) The system controller suspends the energy market for reasons of system security;

ii) The system controller is forced to abandon the workplace;

iii) The system controller is unable to access or utilize market management system controller.

f) Circumstances that, in the judgement of the system controller, warrant the suspension of the energy market.

Deleted: 6.9 Energy Market Suspension

6.9.1 Objective ¶

Under extraordinary circumstances, the system controller may suspend the normal operation of the energy market. ¶

The purpose of this rule is to prescribe the conditions under which the energy market may be suspended and the process to be used by the system controller to suspend the energy market. ¶

The suspension of the energy market means that the system controller is not obliged to follow the energy market merit order nor the ancillary services merit order in issuing dispatches and that the system marginal price will be predefined and set in accordance with rule 6.9.4. ¶

6.9.2 Initiating an Energy Market Suspension ¶

If deemed necessary, the system controller may suspend the energy market under specific events or conditions. ¶

In the determination of the system controller, the energy market may be suspended if any of the following conditions apply: ¶

- The AIES has experienced a blackout. ¶
- The AIES breaks up into two (2) or more electrical islands. ¶
- The AIES is not in a secure operating state and in the judgement of the system controller is on the verge of a system emergency. ¶
- The system controller is unable to issue dispatches because the system controller is forced to abandon the workplace. ¶
- System controller is unable to access or utilize the market management tools such as the energy market merit order. ¶
- An order is received from the EUB to suspend market operations. ¶
- Circumstances that, in the judgement of the system controller, warrant the suspension of the energy market. ¶

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tools such as the energy market merit order list.

iv) The AIES breaks up into two (2) or more electrical islands

v) In the judgement of the system controller circumstances warrant the suspension of the energy market.

If an order from the EUB to suspend market operations occurs, the system marginal price will be set at the price ordered by the EUB, or lacking this direction, at the price of the last block receiving an energy market dispatch that was eligible to set pool price using the last available energy market merit order prior to the energy market suspension.

6.9.5 Ending of Energy Market Suspension

The system controller will notify pool participants when an energy market suspension has ended, and a report will be published.

The energy market suspension will end as soon as normal energy market operations are possible and the AIES can be operated reliably, as determined by the system controller. The system controller will issue a notice that the energy market suspension has ended and normal energy market operations have resumed. A report outlining the nature of the suspension and which may also include recommendations as to possible revisions to these energy market suspension rules would be made available to pool participants following such a suspension.

The ISO will publish a preliminary report, on the ISO website, within 5 business days following an energy market suspension. The ISO will publish a final report, on the ISO website, within 20 business days following an energy market suspension.
7. LOAD SETTLEMENT

Please click here to see load settlement rules.
8.1 Source Asset Calculations

8.1.1 Settlement at Pool Price

For each source asset and for each settlement interval the pool participant will receive the amount calculated by the following formula:

\[
\text{Energy payment in } \$ = ((\text{energy production in MWh}) \text{ minus } (\text{net settlement instruction MWh volumes in MWh})) \text{ multiplied by } (\text{pool price in } \$/\text{MWh})
\]

where:

“energy production in MWh” is the metered MWh value for generating assets or the interchange MWh schedule across the interconnection for importing assets.

If the energy production in MWh is less than the net settlement instruction MWh volume then the pool participant is deemed to have purchased the MWh volume difference from the power pool. The pool participant must pay to the ISO in respect of electric energy received by it in a settlement interval an amount equal to the energy payment.

Payment for emergency energy production installed and producing during an emergency transmission outage outside of an energy market suspension event will be paid based on the energy payment calculation noted above.

The calculation of payment for emergency energy production installed and producing during an emergency transmission outage outside of an energy market suspension event will be based on metered energy submitted to the ISO as per rule 8.3.2 b).

8.1.2 Payment to Suppliers on the Margin

a) A pool participant with a source asset that has delivered energy pursuant to an energy market dispatch during a settlement interval is eligible to receive energy production uplift for the settlement interval if the following conditions are met:

i) An operating block receives an energy market dispatch;

ii) The offer price associated with the operating block is greater than the pool price; and

iii) The average rate of energy production of the source asset is greater than the sum of the quantity (MW) of all blocks of such offer below the block referred to in i) and ii).

b) In the event the foregoing conditions have been met, then the pool participant will be paid by the ISO energy production uplift in $ calculated as follows:

i) If during such settlement interval (A minus B) is less than or equal to [(C minus B) multiplied by marginal dispatch time divided by 60 minutes], then

\[
\text{energy production uplift in } \$ = (A \text{ minus } B) \text{ multiplied by } (D \text{ minus pool price})
\]
ii) If during such settlement interval (A minus B) is greater than [(C minus B) multiplied by marginal dispatch time divided by 60 minutes], then

energy production uplift in $ = (C minus B) multiplied by (D minus pool price) multiplied by marginal dispatch time divided by 60 minutes.

Where for purposes of this rule 8.1.2, the following applies:

A = the average rate (MW) of energy production of such source asset
B = sum of the quantity (MW) of all dispatched blocks of such source asset with offer prices less than the offer price of the block that is eligible for energy production uplift for the same source asset
C = the energy market dispatch level (MW) up to the block eligible for energy production uplift for such source asset
D = the offer price associated with the energy market dispatch MW level in C
“marginal dispatch time” means the number of minutes that the block that is eligible for energy production uplift is dispatched.

c) In any case where there is more than one dispatched block greater than pool price, the pool participant will be paid energy production uplift calculated by the formula(s) in b) for each such dispatched block.

8.1.3 Dispatch Down Service Payment

The ISO will calculate and include payments for DDS on the pool statement.

A pool participant with a source asset that has provided DDS pursuant to a DDS dispatch during a settlement interval is eligible to receive a DDS payment for the settlement interval, the amount calculated by the following formula:

\[ DDS \text{ price} \times DDS \text{ quantity} \times DDS \text{ time} \times 60 \text{ minutes} \]

Where for purposes of this rule 8.1.3, the following applies:

DDS price is the system marginal price plus the DDS offer price for the settlement interval, DDS price is greater than or equal to zero.

DDS quantity means the amount (MW) a pool participant is dispatched for DDS in the settlement interval.

DDS time means the number of minutes a source asset was dispatched for DDS in the settlement interval.

8.1.4 Dispatch Down Service Charge

The ISO will calculate and include charges for DDS on the pool statement.

A pool participant with a source asset that has generated during a settlement interval will receive a charge for the settlement interval, the amount calculated by the following formula:

\[ \frac{\text{energy production (MWh)}}{\text{sum of all energy production (MWh)}} \times \sum \text{all DDS payments} \]
where:

“DDS payment” is as prescribed under rule 8.1.3.

“energy production in MWh” is the metered MWh value for a source asset that has generated during a settlement interval.

### 8.2 Sink Asset Calculations

#### 8.2.1 Settlement at Pool Price

A pool participant must forward to the ISO in respect of electric energy received by it in a settlement interval the amount calculated by applying the following formula:

\[
\text{energy charge in } \$ = (\text{(energy consumption in MWh)} \text{ minus (net settlement instruction MWh volumes in MWh)}) \times \text{pool price in } \$/\text{MWh}
\]

Where:

Energy consumption in MWh is the metered MWh value for load assets or the interchange MWh schedule across the interconnection for exporting assets.

If the energy consumption in MWh is less than the net settlement instruction MWh volume, then the pool participant is deemed to have sold the MWh volume difference to the power pool. The ISO will pay the pool participant in respect of electric energy supplied in a settlement interval an amount equal to the energy charge.

#### 8.2.2 Post Final Adjustment Mechanism Financial Allocation for Energy Consumption

The ISO will calculate and include post final adjustment mechanism payments and charges on the pool statement.

a) PFAM adjustment calculations submitted by the LSA to the ISO pursuant to rule 7, 5.3.8 a) will be included on the ISO’s preliminary statement. Where these timelines are not met, the adjustment will be made on the following month’s preliminary statement from the ISO.

b) The ISO shall accept the PFAM adjustments submitted by the LSA and apply the relevant historic ISO pool price to the data in order to arrive at the applicable financial adjustment(s) for the RSA, RAM and TAA.

c) The financial adjustments and allocations will be included on the relevant ISO statements and shall be payable by each party in accordance with the provisions of rule 8.

#### 8.2.3 Post Final Adjustment Mechanism Financial Allocation for Energy Production

PFAM for energy production relates to adjustments for metering data for source assets that occur outside of the final pool statement issued in accordance with rule 8.4.2 a iii).

a) The ISO will calculate and include PFAM for energy production for financial settlement. PFAM for energy production shall only be applicable to transactions dating from and after January 1, 2001. Periods prior to January 2001 have been deemed closed for dispute.
Pool participants with energy production disputes will be required to file a dispute in accordance with rule 8.5 to initiate a review of the metering data previously financially settled and the metering data expected.

Upon acceptance of the energy production dispute, PFAM for energy production outside of the final pool statement issued in accordance with rule 8.4.1 a) iii) will be submitted to the ISO in the format designated in ISO under rule 7, Schedule B 6.2.4.2. The metering data is to be submitted to settlement@aeso.ca.

Payment or charges for the adjusted energy production metering data will be calculated in accordance with rule 8.1 and issued in accordance with rule 8.4.2 d) iii).

8.2.4 Settlement for Supplier on the Margin Payments

For any settlement interval where a pool participant has been paid a energy production uplift in accordance with rule 8.1.2, a pool participant with energy consumption in the same settlement interval must pay an amount to the ISO calculated using the following formula:

Energy production uplift share charge in $ = (sum of all energy production uplifts) multiplied by the pool participant’s energy consumption divided by (sum of all pool participant’s energy consumption)
8.3 Other Calculations and Information Requirements

8.3.1 Import/Export Transactions

The ISO reports import and export transactions.

For purposes of facilitating financial settlement for system access service and managing import and export inadvertent energy, the billing determinants as set out in the rules for transactions involving use of an interconnection are to be calculated by the ISO.

8.3.2 Submitting Metering Data

Certain organizations may supply the ISO with meter volumes for the purpose of power pool settlement.

a) Metering data must be provided to the ISO by the load settlement agent, meter data manager or other source as approved by the ISO.

b) Metering data for emergency energy production installed and producing during an emergency transmission outage outside of an energy market suspension event will be submitted to the ISO in the format designated in rule 7, Schedule B 6.2.4.2. The metering data is to be submitted to settlement@aeso.ca.

8.4 Payments Relating to Electric Energy Purchased and Supplied

8.4.1 Preliminary Pool Statement

For each settlement period, the ISO will issue preliminary pool statements describing electric energy purchases, sales and associated charges.

a) Within 5 business days after the end of each settlement period, the ISO will issue each pool participant a preliminary pool statement through the ISO software and procedures showing:

i) the amount of electric energy purchased from and supplied to the power pool in that settlement period;

ii) the amount of electric energy purchased from and supplied to the power pool determined on an interim basis in the third month following the initial settlement period;

iii) the amount of electric energy purchased from and supplied to the power pool determined on a final basis in the seventh month following the initial settlement period;

iv) amounts owing or owed as calculated in accordance with rules 8.1 and 8.2;

v) the total trading charge calculated in accordance with rule 8.4.2 b) ii);

vi) any levy pursuant to rule 8.6.2 or refund in respect thereto;

vii) such other information as the ISO considers appropriate.
b) The ISO will provide to that pool participant the supporting data used in determining the amounts of any preliminary pool statement such information being limited to that identified in rule 10.0.

c) In the event a pool participant has an energy charge and an energy payment in a settlement period, the preliminary pool statement will reflect separately the amount of electric energy purchased, the amount of electric energy supplied, and the net amount owing or owed for all transactions with the power pool.

d) In the event the ISO software and procedures or ISO internet connections are not available on the 5th business day, the ISO will endeavor to issue to pool participants the preliminary pool statement utilizing facsimile delivery or other alternative means specified by the ISO.

e) It is the responsibility of each pool participant to notify the ISO if it fails to receive the preliminary pool statement on the date specified. Each pool participant shall be deemed to have received the preliminary pool statement on the 5th business day of a month unless it notifies the ISO to the contrary.

f) In the event a pool participant notifies the ISO that is has failed to receive the preliminary pool statement on the 5th business day, d) to forward the pool statement to the pool participant, in which case the preliminary pool statement shall be considered to have been received on the date the re-sent pool statement is sent to the pool participant.

8.4.2 Final Pool Statement

The ISO will issue a final pool statement for each settlement period.

a) Not later than 15 business days after the end of the settlement period the ISO will issue a final pool statement through software and procedures for the relevant settlement period.

i) the amount of electric energy purchased from and supplied to the power pool in that settlement period;

ii) the amount of electric energy purchased from and supplied to the power pool determined on an interim basis in the third month following the initial settlement period;

iii) the amount of electric energy purchased from and supplied to the power pool determined on a final basis in the seventh month following the initial settlement period.

Additional items that may appear on the final pool statement include, but are not limited to, items b) through k) in rule 8.4.2:

b) If a dispute is resolved by mutual agreement of all interested parties before the final pool statement for the associated settlement period has been issued, the final pool statement will include any adjusted amount payable by or to the pool participant.

The ISO will collect a charge on trading activities from pool participants to recover costs of operating the ISO.

45
i) In addition to the collection of the fees, if any, set by the ISO under rules 2.2.2, 2.2.4, and 2.2.5 and revenue from other sources as approved by ISO, the balance of the costs of operating the power pool, the costs of the ISO, costs of the Market Surveillance Administrator and costs and expenses of other powers, duties, responsibilities of the ISO, except costs and expenses recovered under the ISO tariff will be recovered by a charge (the "total trading charge") on each pool participant's trading activities. The ISO may recover expenditures for capital assets over a period comparable to the useful life of those assets.

ii) The ISO shall collect for each settlement period a total trading charge from each pool participant, where the total trading charge shall be calculated as follows;

\[
\text{Total trading charge} = \frac{\text{Trading Charge}}{\text{MWh}} \times \text{MWh's taken to physical delivery through the power pool by the pool participant. This includes energy imbalances related to net settlement instructions, and}
\]

Trading Charge/MWh = (Budget costs less projected Annual pool participation fees, projected revenue from other sources and capital costs to be recovered in future financial years) divided by the total estimated number of MWh's expected to be traded on both supply and purchase in the forthcoming financial year.

iii) The Trading Charge/MWh is detailed in the Schedule of ISO fees.

iv) The total trading charge calculated in accordance with b) will be invoiced with the pool statement defined in rule 8.4 and payment made in accordance with rule 8.4.

c) Pool Participation Fee

Annual pool participation fees will be issued to pool participants and appear on the final pool statement. The pool participation fee is detailed in the Schedule of ISO fees.

d) Resolved Disputes

i) If a dispute is resolved by mutual agreement of all interested parties before the final pool statement for the associated settlement period has been issued, the final pool statement will include any adjusted amount payable by or to the pool participant.

ii) If a dispute is resolved by mutual agreement of all interested parties after the final pool statement for the associated settlement period has been issued, any adjusted amount payable by or to the pool participant will be included in the next final pool statement.
iii) If a dispute is resolved by a dispute resolution process after the final pool statement for the associated settlement period has been issued, any amount directed to be payable by or to the affected pool participant(s) shall be included in the next final pool statement.

e) Late Payment Charges

The pool participant is liable to pay any costs of collecting amounts owed, including costs on a solicitor and own client basis for legal services. The ISO may charge a fee to recover bank charges or legal services incurred due to a pool participant’s late payment. This may include interest charges at the ISO’s bank rate, overdraft bank processing fees, or any other fee charged by the bank as a result of the late payment.

f) Software Security Charge

_A fee may be charged for security software._

The ISO may also set and levy a fee to recover the costs of procuring and processing security software required for pool participant interface with software and procedures. This fee is detailed in the Schedule of ISO fees and described as digital certificates.

g) Supply Shortfall Costs

The ISO may charge an ISO fee to recover the costs associated with a supply shortfall directive. The contribution paid by a pool participant shall be determined by prorating the amount paid to the pool participant for the generating asset issued the supply shortfall directive over the total energy consumption of each pool participant during the settlement intervals where the supply shortfall energy was required. Where the supply shortfall energy was subsequently not required, the contribution paid by a pool participant shall be determined by prorating the amount paid to the pool participant for the generating asset issued the supply shortfall directive over the total energy consumption of each pool participant during the settlement intervals where the energy was forecast to be required. The supply shortfall costs will be invoiced with the pool statement.

h) The ISO will provide the pool participant with the supporting data used in determining the amounts of any final pool statement such information being limited to that identified in rule 10.0.

i) In the event the ISO software and procedures or ISO internet connections are not available on the 15th business day, the ISO will endeavor to issue to pool participants the final pool statement utilizing facsimile delivery or other alternative means specified by the ISO.

j) It is the responsibility of each pool participant to notify the ISO if it fails to receive the final pool statement on the date specified. Each pool participant shall be deemed to have received the final pool statement on the 15th business day of a month unless it notifies the ISO to the contrary.

k) In the event a pool participant notifies the ISO that is has failed to receive the final pool statement on the 15th business day, the ISO, in accordance with rule
8.4.2 i), will forward the pool statement to the pool participant, in which case the final pool statement shall be considered to have been received on the date the resent pool statement is sent to the pool participant.

8.4.3 Pool Settlement Date and Payments

Financial settlement generally occurs 20 business days following the end of each settlement period. Financial settlement may occur 18 or 19 business days following the end of a settlement period for pool participants who have defaulted on a payment.

a) Settlements relating to pool statements shall occur on the 20th business day following the end of the settlement period. The following exceptions may apply:

i) Settlements shall occur on the 19th business day following the end of the settlement period for pool participants that were required to pay on the 20th business day if they have defaulted twice in the past 12 calendar months or if the participant has defaulted once and they have not been a participant for the past 12 calendar months. The pool settlement date for amounts owing will remain at the 19th business day for the following 6 pool settlement dates provided that the 6 pool settlement dates have passed without an incident of default by the pool participant; or

ii) The 18th business day following the end of the settlement period, for pool participants that were required to pay on the 19th business day and they have defaulted. The pool settlement date for amounts owing will remain at the 18th business day for the following 12 pool settlement dates provided that the 12 pool settlement dates have passed without an incident of default by the pool participant; or

iii) As otherwise determined by ISO.

The date in which settlement is to occur is the “pool settlement date” for the pool participant.

b) Each January the ISO will publish the pool settlement dates for the following financial year. These dates will be in effect for the financial settlement of both the pool statement and transmission tariff settlement determined under the ISO tariff.

c) To ensure that the power pool has bank value on the pool settlement date, payments made to the ISO will be deposited through electronic funds transfer or wire transfer to the bank account specified by the ISO.

d) On the pool settlement date as identified on the pool statement for each pool participant, in accordance with rule 8.4.3 a),

i) each pool participant will forward to the ISO any amounts stated to be owing by that pool participant in the final pool statement issued pursuant to rule 8.4.2; and

ii) the ISO will direct to each pool participant any amount stated to be owing to that pool participant in the final pool statement issued pursuant to rule 8.4.2.
e) Full payment must be made in accordance with the final pool statement issued pursuant to rule 8.4.2 whether or not any amount is under dispute.

f) A pool participant may pay at an earlier date than the participant payment specified on the final pool statement issued in accordance with rule 8.4.2 a). Prepayment shall be made in accordance with the following:

i) notification must be given to the ISO prior to submitting such prepayment or before converting an existing overpayment by the pool participant into a prepayment;

ii) a prepayment notification shall specify the dollar amount being prepaid;

iii) a prepayment by the pool participant shall be deposited through electronic funds transfer or wire transfer into the bank account specified by the ISO.

iv) prepayment funds received by the ISO on behalf of a pool participant may be applied by the ISO to any outstanding financial obligations of that pool participant to the ISO for transactions carried out in the power pool.

g) Default and interest and other charges associated with non-payment of pool statements shall be administered in accordance with rule 8.6.

8.4.4 Interest and Other Charges

Interest and late payment fees will be charged to defaulting pool participants.

a) Any party who has failed to make payment to the ISO in accordance with rule 8.4.3 is liable to pay:

i) late payment charges and penalties where such an amount is equal to 2 days interest on the outstanding amount owing. Such interest will be calculated on the day following the applicable pool settlement date. For pool participants whose pool settlement date was scheduled to be 20 business day following a settlement period, the interest will be calculated at the Bank of Montreal Canadian prime rate plus 6%. For pool participants whose pool settlement date was scheduled to be the 19 business day following a settlement period, the interest will be calculated at the Bank of Montreal Canadian prime rate plus 12%; and

ii) interest to pay late payment charges and penalties on the amount owing for the duration that funds are outstanding. For pool participants whose pool settlement date was scheduled to be the 20 business day following a settlement period, the interest will be calculated at the Bank of Montreal Canadian prime rate plus 6%. For pool participants whose pool settlement date was scheduled to be the 19 business day following a settlement period, the interest will be calculated at the Bank of Montreal Canadian prime rate plus 12%. Interest will be calculated from the due date to the date on which bank value is received.
8.5 Power Pool Disputes

Specific guidelines are to be followed when a pool participant disputes a pool statement.

a) Disputes relating to load settlement calculations are required to abide by the dispute resolution process and data revision described under rule 7.

b) Any pool participant who disputes the net amount in the final pool statement, except those amounts relating to load settlement calculations, shall notify the ISO in writing during the dispute submission period. Such dispute shall be resolved either by mutual agreement between the ISO and the pool participant or through the mediation process described under rule 11.0.

c) i) Subject to d) no adjustments of accounts will be made after the dispute submission period, unless such adjustments are made as a result of a mediation or dispute settlement initiated during the dispute submission period.

ii) A signoff letter will be sent to all parties affected by the resettlement of a disputed settlement period.

iii) All parties will have 10 business days from the date of the signoff letter to return the letter with a signature indicating their agreement to the information enclosed in the signoff letter. Failure to respond within the 10 business days with an official sign off will be regarded by the ISO as acceptance of the settlement results and closure of the settlement period dispute. If an affected party remains in dispute of the resettlement results they are required to formally communicate their position to the ISO within these 10 business days. It will remain at management's discretion as to how the ISO will proceed.

d) Subject to other provisions of rule 8.5, the ISO has the right to authorize the review and settlement of a dispute arising after the dispute submission period, but in any event no more than 26 months following the end of the settlement period.

e) Any disputes raised in accordance with b) or d) and relating to metering data provided to the ISO by a meter data manager or other source as approved by the ISO shall be communicated to the respective information source. The respective information source may participate in the resolution of such disputes.

f) Any disputes raised in accordance with b) or d) and relating to a net settlement instruction MWh volume provided by a forward market operator shall be communicated to the applicable forward market operator. The forward market operator shall participate in the resolution of such disputes.

g) Disputes relating to EUB orders or directions relating to regulations under the Act shall be referred directly to the EUB for resolution.

h) Each January, the ISO will publish the dispute submission periods for the following financial year’s settlement periods.

i) Notwithstanding the above, in the event a dispute is unable to be resolved, the financial settlement dispute will be referred to rule 11.

8.6 Default Procedure and Charges

8.6.1 Default
The ISO will take certain actions on a pool participant who defaults on payment.

a) If amounts owing the ISO are not received in full and in accordance with payment schedules identified in rule 8.4.3 the ISO will:
   i) assess the defaulting pool participant interest and other charges specified in rule 8.4.4; and
   ii) revise the pool settlement date for the defaulting pool participant in accordance with rule 8.4.4.

b) If amounts owing the ISO are not received in full and in accordance with payment schedules identified in rule 8.4.3, the ISO, in addition to any other remedies available at law or under these rules, may apply money from the defaulting pool participant's cash security deposit, letter of credit and/or other form of financial security provided under rule 2.1 in satisfaction or part satisfaction of the amount outstanding including any interest and other charges incurred under rule 8.4.4.

c) If a pool participant defaults on payment on three occasions within a 24 month period, or twice if the participant has not been a participant for the previous 12 months, the pool participant will not be granted an unsecured trading limit and will be required to satisfy the prudential requirements in Appendix 3.

d) If a pool participant defaults on payment, and their pool settlement date is on the 18th business day following a settlement period, then the ISO will immediately refer the matter for action under rule 1.4.

e) In addition to rule 8.6.1 b), and if determined to be appropriate by the ISO, then the ISO shall:
   i) prepare and render a statement (the "final statement") for all amounts owed the ISO on the date of the direction by the defaulting pool participant, and to immediately apply money from the defaulting pool participant's cash security deposit, letter of credit and/or other form of financial security provided under rule 2.1 in satisfaction or part satisfaction of the amount owing on the final statement. Amounts owing the ISO on the final statement shall be due immediately; and
   ii) suspend the pool participant's existing bids or offers and cease acceptance of further bids or offers from the defaulting pool participant; and
   iii) for the purposes of power pool settlements, cease acceptance of and/or de-register net settlement instructions, if either pool participant to a net settlement instruction defaults on payment.

8.6.2 Levy to Pool Participants

The ISO will impose a levy prorated to pool participants in good standing in order to recover amounts owing from defaulting pool participants.

a) If full payment including any interest or other charges incurred under rule 8.4.4 is not received from the defaulting pool participant within 10 business days following the applicable pool settlement date,
   i) for amounts owing in accordance with a final pool statement, the ISO will
in the next pool statement apply to all those pool participants that had exchanged electric energy during the settlement period for which full payment was not received a one time levy in respect of each default in the amount owed, including interest, and which shall be used to repay any amounts outstanding and owed. The contribution shall be determined by prorating the shortfall amount owed over the total of the energy production and energy consumption of each pool participant during the affected settlement period.

b) In assessing levies under rule a) the ISO does not excuse the defaulting pool participant’s default or lose any right or remedy the ISO might otherwise have.

c) Any full or partial recovery of outstanding indebtedness including interest will be reimbursed to those parties that complied with the levy contemplated in a) above on a prorated basis according to the amount contributed. Any reimbursement is not to exceed the actual amount contributed by the parties together with interest thereon.

8.6.3 Consequence of Applying Security Deposits

Pool participants defaulting on payment must restore financial security.

a) If the ISO does apply money under rule 8.6.1 b), the ISO shall immediately notify all pool participants including the defaulting pool participant of the action taken.

b) Within 2 business days of receiving notice under a), the defaulting pool participant must replenish its security deposit, letter of credit, and/or other form of financial security provided as required for that pool participant under rule 2.1.

c) If the defaulting pool participant does not replenish the security deposit or other form of financial security in accordance with rule 8.6.1 b) the ISO will immediately refer the matter for action under rule 1.4.

8.7 Goods and Services Tax Registration

Each pool participant will provide the ISO with a GST registration number or notification of exemption as defined by the Canada Revenue Agency.
9 TRANSMISSION

9.1 Transmission Facility Projects

9.1.1 Eligible TFO

9.1.1.1 Eligibility by Service Area

Subject to rule 9.1.1.2 b), c) and d), each service area shall have one TFO eligible to apply for the construction or operation, or both, of transmission facilities in such area. For purposes of this rule 9.1.1.1, the following TFOs are eligible for the referenced service area:

<table>
<thead>
<tr>
<th>TFO</th>
<th>Service area</th>
</tr>
</thead>
<tbody>
<tr>
<td>AltaLink L.P.</td>
<td>FortisAlberta Inc.</td>
</tr>
<tr>
<td>ATCO Electric Ltd.</td>
<td>ATCO Electric</td>
</tr>
<tr>
<td>ENMAX Power Corporation</td>
<td>ENMAX Corp.</td>
</tr>
<tr>
<td>EPCOR Transmission Inc.</td>
<td>EPCOR Distribution Inc.</td>
</tr>
<tr>
<td>City of Red Deer</td>
<td>City of Red Deer</td>
</tr>
<tr>
<td>City of Lethbridge</td>
<td>City of Lethbridge</td>
</tr>
</tbody>
</table>

9.1.1.2 Directions

a) Subject to rules 9.1.1.2 b), c) and d),

i) the ISO will issue a Direction to the TFO eligible in the service area where the Project is located;

ii) with respect to a Project located in more than one service area, the ISO will issue a Direction to each TFO for that part of the Project located in its service area;

b) With respect to transmission facilities that exist as of August 12, 2004, the owner of such facilities, or its successors and assigns, shall be the TFO eligible to receive a Direction with respect to any enhancements or upgrades to such facilities, subject to the ISO being satisfied that the operation of such facilities will result in the safe, reliable and efficient operation of the facilities. For purposes of this rule 9.1.1.2 b), owners include the following:

<table>
<thead>
<tr>
<th>Owners</th>
</tr>
</thead>
<tbody>
<tr>
<td>AltaLink L.P.</td>
</tr>
<tr>
<td>TransAlta Utilities Corp</td>
</tr>
<tr>
<td>ATCO Electric Ltd.</td>
</tr>
<tr>
<td>ENMAX Power Corporation</td>
</tr>
<tr>
<td>EPCOR Transmission Inc.</td>
</tr>
<tr>
<td>City of Red Deer</td>
</tr>
<tr>
<td>City of Lethbridge</td>
</tr>
</tbody>
</table>

c) The ISO may issue a Direction to a TFO other than the TFO that is eligible pursuant to rule 9.1.1.1, if such TFO and the TFO in whose service area the Project is located, have entered into an arrangement or agreement which would result in the safe, reliable and efficient operation of the transmission system and
such arrangement or agreement has been filed with the EUB;

d) with respect to a Project all but a small portion of which is located in one service area with the small portion located in an adjacent service area, the ISO may issue a Direction to the TFO in whose service area the largest portion of the Project is located, if, in the ISO’s opinion, acting reasonably, such Direction will result in the safe, reliable, efficient and economic operation of the interconnected electric system.

9.1.1.3 Directions - Interconnections to Jurisdictions outside Alberta

a) If the ISO has obtained approval of a NID for a Project contemplated by s. 15(1)(a) of the TR:
   i) the ISO may issue a Direction to the TFO eligible in the service area where the connection of the Project to the interconnected electric system will be located if the proponent of the Project has submitted an application under the HEEA for a permit and license for the remainder of the Project; or
   ii) the ISO may issue a Direction to the TFO eligible in accordance with rule 9.1.1.1 if the Project is proposed by the ISO.

9.1.2 TFO Obligation to Provide Estimates and Proposals

9.1.2.1 Request for a NID Estimate

a) The ISO may request a NID Estimate with respect to a Project from the Designated TFO.

b) The ISO shall provide to the Designated TFO with such request, information required regarding the Project which the Designated TFO would reasonably require from the ISO to complete a NID Estimate.

9.1.2.2 Obligation to Provide NID Estimate

A Designated TFO to whom a request for a NID Estimate has been made must prepare and submit the NID Estimate to the ISO on or before the date mutually agreed to by the ISO and the Designated TFO, acting reasonably. The NID Estimate must include, without limitation, the following:

a) a cost estimate for the Project within the accuracy range of plus 30% to minus 30% of the final costs;

b) assumptions used; and

c) the period of time the estimate is valid.

9.1.2.3 Requirement for a Service Proposal

a) The ISO may request a Service Proposal with respect to a Project from the Designated TFO.

b) The ISO shall not issue a Direction to a Designated TFO with respect to a Project unless it has received a Service Proposal from the Designated TFO for
such Project.

c) The ISO shall provide to the Designated TFO with such request or to a Designated TFO referred to in the foregoing rule b), information regarding the Project which the Designated TFO reasonably requires to prepare a Service Proposal and a Service Proposal Estimate.

9.1.2.4 Obligation to Provide Service Proposal and Service Proposal Estimate

A Designated TFO to whom a request for a Service Proposal has been made must prepare and submit the Service Proposal and a Service Proposal Estimate to the ISO on or before the date mutually agreed to by the ISO and the Designated TFO, acting reasonably. The Service Proposal Estimate must include, without limitation, the following:

a) a cost estimate for the Project within the accuracy range of plus 20% to minus 10% of the final costs;

b) assumptions used;

c) the period of time the estimate is valid; and

d) identify any proposed capital maintenance costs included within any EUB approval.

9.1.2.5 Obligation to Provide Service Proposal Estimate Update

A Designated TFO who has submitted a Service Proposal Estimate pursuant to rule 9.1.2.4 must prepare an update of such Service Proposal Estimate. The Designated TFO must submit such update to the ISO on or before 180 days from the date that the EUB has issued to the Designated TFO all permits and granted all licences pursuant to the HEEA required for the facilities associated with the Project. Such update must include an updated cost estimate for the Project within the accuracy range of plus 10% to minus 10% of the final costs.

9.1.3 Project Reporting by Designated TFOs

9.1.3.1 Monthly Reporting

Unless agreed otherwise, each Designated TFO with respect to a Project, the cost of which is estimated to be more than one million dollars, shall provide to the ISO on or before the 15th Business Day of each month commencing the month after the ISO has issued a Direction to such Designated TFO(s), a Project Progress Report.

9.1.3.2 Project Variance Reporting

In addition to any other obligations it has with respect to a Project, the Designated TFO shall notify the ISO as soon as reasonably practicable in the event of any of the following:

a) if the in service date of the Project is forecast by it to be delayed from the in service date specified in the Direction; or

b) if the forecast costs of the Project are expected to vary by more than 10% from the amount specified in the Direction or if applicable, the amount agreed to by the ISO in an amendment to the Direction; or
c) if the TFO has determined that a material amendment to the scope of the Project is required to meet the need identified with respect to the Project.

9.1.3.3 Project Variance Explanation

The Designated TFO shall include with the notice given in rule 9.1.3.2, the reason or reasons for any or all of the variances, including schedule delays, cost trends and scope change.

9.1.3.4 Project Change Proposal

The Designated TFO shall prepare and submit to the ISO a Project Change Proposal to address the delay, cost trends, or scope change, as the case may be, identified in a notice pursuant to rule 9.1.3.2. The Designated TFO shall prepare and submit such proposal to the ISO as soon as reasonably practical and in any event no later than 15 days from the date of the notice pursuant to rule 9.1.3.2.

9.1.3.5 Project Change Proposal Review

The ISO shall review the Project Change Proposal submitted by the Designated TFO pursuant to rule 9.1.3.4. As soon as reasonably practical, and no later than 15 days following receipt of the Project Change Proposal, the ISO must do one or more of the following:

a) approve such proposal, with or without amendments, in which event the Project shall be deemed amended;

b) reject such proposal with or without requesting a revised Project Change Proposal;

c) cancel the Project; and/or

d) recommend that the TFO apply to the EUB for an amendment to any approval it may have obtained pursuant to the HEEA.

9.1.3.6 Final Cost Report

Unless agreed otherwise, a Designated TFO shall provide to the ISO:

a) on or before the 60th day from the last day of the month after the Project Energization of the Project, an estimate of the final cost of the Project substantially in the form of the Final Cost Report and specifying the accuracy range of the estimate, as a plus % to a minus % of the final costs; and

b) as soon as practical, and in no event later than the first day of the sixth full month after the Project Energization of the Project, a Final Cost Report of the Project.

9.1.3.7 Notification – Transmission Customer Projects

Notwithstanding any other provision within this rule 9.1.3, if a Transmission Customer has made an application for system access service for a specific Project, or portion of a Project, the ISO shall notify the Designated TFO in that regard. Subject to such notification;
a) the Designated TFO shall provide to the Customer at the same time it is required to provide or submit to the ISO, any and all notifications and documents it is required to provide or to submit pursuant to this rule 9.1.3; and

b) the ISO and the TFO shall review any Project Change Proposal with the Customer, and thereafter the ISO acting reasonably, must do one of the things identified in rule 9.1.3.5.

9.1.4 ISO Projects Reporting

No later than the last day of the month following each Quarter, the ISO shall make available on its website the Quarterly Projects Report.

9.1.5 Project Procurement

9.1.5.1 Project Material Procurement by Designated TFO

A Designated TFO, shall, in carrying out the construction of the transmission facilities, comply with the procurement requirements contained in this rule.

9.1.5.2 Major acquisitions

Where the cost of a specific item or type of any Project Material required for a Project is forecast by the Designated TFO, acting reasonably, to exceed $50,000, the Designated TFO shall solicit written bids to provide such material from not less than 3 arm’s length suppliers.

9.1.5.3 Minor acquisitions

Where the cost of all of any specific item or type of any Project Material required for a Project is forecast by the Designated TFO, acting reasonably, to exceed $10,000 but be less than $50,000, the Designated TFO shall solicit written bids, including short form written bids, to provide such material from not less than 3 arm’s length suppliers.

9.1.5.4 Standing Bids

The Designated TFO may obtain from a supplier a written bid, including a short form written bid, that is in effect for a specified period of time and utilize such bid for purpose of making a determination in accordance with the following rule 9.1.5.5.

9.1.5.5 Lowest Priced Compliant Bid

Subject to rule 9.1.5.6 a), in the event the Designated TFO receives one or more compliant bid pursuant to rule 9.1.5.2 or 9.1.5.3, it shall award the contract to the party that has submitted the lowest priced, fully compliant bid.

9.1.5.6 Exceptions

a) In the event the Designated TFO has awarded a contract to a party from whom it has received a bid pursuant to rules 9.1.5.2 or 9.1.5.3, and such party did not submit the lowest priced, fully compliant bid such TFO shall;
i) demonstrate to the ISO, if requested, that it was commercially reasonable to do so;

ii) with respect to a contract awarded where bids were received pursuant to rule 9.1.5.2 include in the next Project Progress Report for the Project, its reasons for not awarding such contract in compliance with rule 9.1.5.5; and

iii) with respect to all such contracts, include in its books and records its reasons for not awarding such contracts in compliance with rule 9.1.5.5.

b) A Designated TFO may award a contract to a party without obtaining a bid pursuant to rule 9.1.5.2 or 9.1.5.3 if the Designated TFO can demonstrate to the ISO that it was reasonable not to obtain competitive bids, based on any of the following:

i) that the party awarded the contract was the only entity capable to provide the Project Material;

ii) that given reasonable Project schedule requirements, there was insufficient time to solicit bids; or

iii) that there was insufficient information on which to base a bid.

9.1.5.7 Maintenance of Procurement Books and Records

Subject to any other obligation or duty a Designated TFO has, including without limitation any obligations it has pursuant to the ISO Tariff or the terms and conditions contained in the current version of the EUB approved tariff of such TFO, the Designated TFO shall maintain all written bids relating to the procurement of Project Material for each Project regarding which it has been issued a Direction for not less than one year from the date that the ISO has received the completed Final Cost Report for the Project.

9.1.5.8 Compliance Review Right of ISO

The ISO shall have the right exercisable upon reasonable prior notice to the Designated TFO to examine the books and records of the Designated TFO, including all written bids relating to the procurement of Project Material, to the extent reasonably necessary to verify, with respect to any Project compliance by the TFO with this rule 9.1.5; provided, that such right shall only continue for a period of one year from the date it has delivered the Final Cost Report of such Project to the ISO.

9.1.5.9 Reasons for non-compliance

In addition to any other provisions in these rules, in the event the ISO, acting reasonably, determines that a Designated TFO has not complied with this rule 9.1.5 regarding procurement, it shall advise the Designated TFO and give it the reasons for such non-compliance.

9.1.5.10 Project Procurement Report

The Designated TFO shall include in the Final Cost Report details regarding the level of competitive procurement with respect to the acquisitions for a Project made pursuant to
rule 9.1.5.2.

9.1.6 Confidentiality

9.1.6.1 Data and Information Included

Subject to rule 9.1.6.2, all data and information either the ISO or Designated TFO provides to the other with respect to rule 9.1 shall be treated by the party receiving such data and information in accordance with the confidentiality provisions in the ISO rules or the terms and conditions contained in the current version of the EUB approved tariff of the TFO.

9.1.6.2 Data and Information Excluded

All NID Estimates and all Quarterly Projects Reports shall not be confidential.

9.1.7 Interpretation

In the event of any conflict or inconsistency between this rule 9.1 and any tariff approved by the EUB, or EUB order or directive, the latter shall prevail.

9.2 Transmission Loss Factors

9.2.1 Purpose of Rule

The purpose of this rule is to describe the means by which the ISO determines annual loss factors to provide for the reasonable cost recovery of transmission line losses in accordance with the requirements of the TR.

9.2.2 Establish and Maintain Loss Factors

a. The ISO must establish and maintain for each calendar year loss factors in accordance with this rule.

b. Despite rule 9.2.2.a, if the ISO determines that, in its opinion, an enhancement or upgrade to the transmission system materially affects loss factors it may adjust the loss factors in accordance with this rule 9.2.2. A material change for the purpose of this rule would be any change in loss factor to one or more generating units of 0.25%.

c. The ISO must post on its web site and make publicly available the following:

   i. A list of annual loss factors for:
      • all generators directly connected to the interconnected electric system, and
      • firm imports (service not currently available).

   The loss factors will be posted by the first week in November prior to them becoming effective.

   ii. A list of loss factors for:
• demand opportunity service, and
• opportunity import and export transmission service.

The opportunity service loss factors will be posted by the first week in November prior to them becoming effective.

iii. The effective date of establishment of the loss factors and the period of time they are in force pursuant to rule 9.2.2.b;

iv. A list of estimated loss factors (non-binding) for the fifth year subsequent to the year referenced in the foregoing 9.2.2.c.i. for all generators directly connected to the interconnected electric system.

v. The annual generic stacking order.

d. The ISO must follow the loss factor methodology to determine loss factors. Without restricting the foregoing, the loss factor methodology must have regard for the following:

i. Loss factors must be determined for each location on the transmission system as if no abnormal operating conditions exist;

ii. The loss factor methodology should be a long-term signal and relatively stable, to allow it to be factored into investment decisions.

iii. The loss factor in each location must be representative of the impact on average transmission system losses by each respective generating unit or group of generating units relative to load;

iv. Loss factors must be one number at each location that does not vary, except as a result of revisions referred to in rule 9.2.2.b;

v. After determining which loss factors result in a charge or credit, every loss factor must be compressed to limit the loss factors as follows:

   (i) Loss factors associated with a charge must not exceed 2 times the average transmission system loss factor, and

   (ii) Loss factors associated with a credit must not exceed one times the average transmission system loss factor.

e. The ISO must make rules with respect to the designation of loss factors in any place in Alberta where a generating unit is not located, and on request, determine a loss factor with respect to a generating unit that a person proposes to construct.

f. A request pursuant to rule 9.2.2.e by a market participant must be made by completing and submitting a “Preliminary Loss Factor Calculation Application” available on the ISO’s website as well as paying the fee specified on the foregoing application.

g. The ISO may not amend the loss factor methodology unless it has posted on its website not less than 3 months prior to the proposed date of amendment, a notice of its intention to do so and has sent a copy of such notice to the address specified for notices in each System Access Agreement then in force for each generating unit. An amendment to this Rule will require the ISO to undertake a formal stakeholder consultation process.

h. An amendment to Appendix 7, “Transmission Loss Factor Methodology and Assumptions”
will be treated as an amendment to this rule 9.2.

9.2.3 Recovery of Costs of Transmission Losses

a. The ISO must establish each year with respect to each loss factor, charges or credits which, if applied, would result in the recovery of the forecast costs of transmission system losses for such year.

b. In accordance with the rules, the ISO will adjust the charges for losses with the application of a calibration factor to ensure that the actual cost of losses is reasonably recovered through charges and credits under the ISO tariff on an annual basis.

c. If the actual cost of losses is over or under recovered in one year, the over or under recovery must be collected or refunded in the next year or subsequent years.

d. The ISO must follow the methodology set forth in the ISO’s Tariff, Rider E, to determine the calibration factor.

e. Subject to rule 9.2.3.h, the owner of a generating unit must pay the charges, and is entitled to the credits, determined by the ISO in accordance with this rule.

f. A market participant importing electric energy under a firm service arrangement, must pay the charges, and is entitled to the credits, as determined by the ISO.

g. A market participant receiving system access service under an interruptible service arrangement for load, import or export must pay location-based loss charges that recover the full cost of losses required to provide this service.

h. A market participant receiving system access service for merchant transmission lines connected to the interconnected electric system, internally or intra-control area will be treated the same as the existing inter-tie lines from Alberta to Saskatchewan and British Columbia. For merchant lines not connected to the interconnected electric system (isolated), no loss factors will be accrued.

i. The payment of charges and entitlement to credits pursuant to rules 9.2.3.g – 9.2.3.i inclusive, will be administered in accordance with the ISO rules.

9.2.4 Loss Factor Modeling and Assumption Details

A description of the loss factor methodology and the assumptions used to calculate loss factors are described in Appendix 7 of the ISO rules.

9.3 This Section is to be Developed

9.4 This Section is to be Developed

9.5 Annual Performance Criteria for Refund of System Contribution

9.5.1 Purpose of Rule

The purpose of this rule is to define the annual performance criteria which a generating asset must satisfy for the generating facility owner of such asset to receive the refund of a System Contribution in accordance with the terms and conditions of the ISO tariff.
9.5.2 Annual Performance Criteria

The **ISO tariff** provides for the refund of an annual amount of a **System Contribution** for a **generating year** by the **ISO** to the **generating facility owner** of a **generating asset** if such asset satisfies all three of the following annual performance criteria for such year.

a) **Commercial Operation** — The **generating asset** has reached **commercial operation** during such year.

b) **Capacity Use** — The **generating asset’s** average capacity factor has met or exceeded the following levels for such year:

<table>
<thead>
<tr>
<th>Generating Asset Type</th>
<th>Capacity Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal</td>
<td>75%</td>
</tr>
<tr>
<td>Natural Gas — Base Load</td>
<td>50%</td>
</tr>
<tr>
<td>Natural Gas — Peaking</td>
<td>10%</td>
</tr>
<tr>
<td>Hydro</td>
<td>20%</td>
</tr>
<tr>
<td>Wind</td>
<td>20%</td>
</tr>
<tr>
<td>Biomass and Waste</td>
<td>75%</td>
</tr>
</tbody>
</table>

The **generating asset** type is as declared by the **generating facility owner** at the time of execution of the **system access service agreement** for the **generating asset**, and must be consistent with the **generating asset** type specified by the **generating facility owner** of such asset in any application made to the **EUB** for approvals required under the **Act** or the **HEEA**.

For the purpose of this **rule 9.5.2**, “**average capacity factor**” means the ratio of the sum of the metered demand of the **generating asset** during the **generating year** to the **STS Capacity** for such unit multiplied by the number of hours in such year. **Average capacity factor** is expressed and can be calculated according to the formula:

\[
\text{Average Capacity Factor} = \frac{\text{Sum of metered energy in generating year}}{\text{STS Capacity} \times \text{hours in generating year}}
\]

c) **Operation within STS Capacity** — The **generating asset’s metered demand** has not exceeded 110% of the **STS Capacity** at any time during the **generating year**. If the **generating asset’s metered demand** exceeds 110% of the **STS Capacity** at any time during the **generating year**, the **System Contribution** refunded for the **generating year** will be reduced or forfeited as per 9.5.3.

9.5.3 Reduction or Forfeiture of Refunds

If a **generating asset** satisfies the criteria in **rules 9.5.2 a) and 9.5.2 b)** during a **generating year** but does not satisfy the criteria in **rule 9.5.2 c)**, the annual amount of the **System Contribution** for such year will be reduced or forfeited in accordance with the following:

a) **Reduction of Refund** — If the **generating asset’s metered demand** has exceeded 110% of the **STS Capacity** but has not exceeded 125% of the **STS Capacity** at any time during the **generating year**, the annual amount will be reduced on a straight-line basis from 100% when the maximum **metered demand** is 110% of **STS Capacity** to 0% when the maximum **metered demand** is 125% of **STS Capacity**.
b) Forfeiture of Refund — If the generating asset’s metered demand has exceeded 125% of the STS Capacity at any time during the generating year, the annual amount will be forfeited.

c) Consent to Exceed STS Capacity — If the generating asset’s generating facility owner received consent in accordance with the ISO tariff to temporarily exceed the STS Capacity, the annual amount will not be reduced or forfeited if the generating asset’s metered demand exceeds 110% of STS Capacity during the period of such consent.

9.5.4 Reporting Requirements

a) Annual Performance Report — The generating facility owner of generating asset for which a refund of a System Contribution is requested must submit an annual performance report to the ISO by January 31 of the year following each generating year, including the following information:

i. The name and address of the generating facility owner.

ii. The name and location of the generating asset.

iii. The commercial operation date of the generating asset.

iv. The generating asset type.

v. The sum of metered energy for the generating asset by month for the generating year.

vi. The maximum metered demand for the generating asset by month for such year.

vii. The STS Capacity for the generating asset during such year including any consents to temporarily exceed such capacity.

b) Report Deficiencies — If such generating facility owner does not provide all of the required information by January 31, the ISO will notify the generating facility owner of the deficiency and the generating facility owner will have 10 business days from the date of such notice to correct such deficiency.

c) Late Fee — For each deficiency notice provided by the ISO to a generating facility owner, the owner will be obligated to pay to the ISO a fee of $1000, which amount the ISO may obtain by reducing and retaining the annual amount of the System Contribution for the generating asset for such year.

9.5.5 Payment of Annual Amounts

In accordance with the ISO tariff, annual amounts of the System Contribution, less any reductions, for a generating year payable to the generating facility owner will be paid by the ISO by February 28 of the year following such year, provided that the annual performance criteria have been satisfied and the ISO has received by January 31 the annual performance report required by rule 9.5.4 a).

9.5.6 Dispute Resolution

Where the generating facility owner disputes the ISO’s determination with respect to whether a generating asset has satisfied the annual performance criteria or any resulting reduction or
forfeiture of refunds, the dispute shall be resolved in accordance with section 11 of the ISO rules.

9.6 Merchant Transmission Facility Open Access

9.6.1 Purpose of Rule

Pursuant to s. 15(5) of the Transmission Regulation, a merchant facility proponent proposing to construct a merchant transmission facility must, in accordance with this rule 9.6,

(a) provide open access to market participants and file its merchant transmission terms and conditions with the EUB for information, and

(b) make capacity available on the merchant transmission facility in an open and non-discriminatory manner, similar to the access available to other transmission facilities.

9.6.2 Open Access

(a) A merchant facility proponent must provide reasonable prior public notice of its intention to proceed by way of open access with respect to a merchant transmission facility. Public notice means a notice reasonably expected to be seen by market participants and other persons who may be interested in the merchant transmission facility. Such notice must, without limitation, be inserted in major newspapers in Alberta and in jurisdictions outside Alberta in which the merchant transmission facility is planned to be located, in the section of each such newspaper where such a notice would reasonably be expected to appear. As well, the merchant facility proponent must conduct public information sessions in Alberta and such jurisdictions.

(b) The merchant facility proponent must make publicly available the names of persons who have acquired merchant transmission facility capacity through the open access process, as well as the amount of such capacity each has acquired, within one month of such capacity being acquired.

(c) All merchant transmission facility capacity which has not been sold pursuant to an open access process may not be sold or otherwise made available except in accordance with a subsequent open access process.

(d) In the event an affiliate of a merchant facility proponent or other corporation who is obligated by this rule 9.6 to comply with the open access process participates in the open access process, the merchant facility proponent or other person must make public that participation and confirm that the affiliate was not provided any advantages in such process over other interested parties.

9.6.3 Merchant Transmission Terms and Conditions

(a) A merchant facility proponent must include with respect to its merchant transmission facility, without limitation, appropriate provisions in its merchant transmission terms and conditions to prevent capacity withholding and other anti-competitive behavior.

(b) The merchant facility proponent must make its merchant transmission terms and conditions publicly available to market participants at all times.
9.6.4 Compliance Review Right of ISO

In addition to the rights and obligations set forth in rule 12, the merchant facility proponent must maintain its books and records at least to the extent reasonably necessary to verify compliance by the merchant facility proponent with this rule 9.6 and must make such books and records available to the ISO upon reasonable prior notice.
10. INFORMATION EXCHANGE

10.1 Information Disclosure Principles

*The ISO will provide open and timely exchange of relevant and non-confidential information.*

Information that will be published and made available through the **ISO** is summarized in the accompanying Appendix 5. The following principles are to be used in determining the information and manner in which such information shall be made available by the **ISO**.

a) All relevant, non-confidential information shall be accessible by all persons in open and non-discriminatory fashion.

b) Each person will be responsible for its own costs of accessing and retrieving information made available by the **ISO**.

c) The **ISO** shall publish or make available all relevant, non-confidential information, in a timely fashion.

d) In the case of electronic data sharing, access to **ISO** information shall be provided on a read-only basis.

e) The **ISO** will publish a minimum or critical set of data to be made available in order to allow pool participants to make rational, informed decisions regarding offers and bids. Such data will be made available as soon as is reasonably practical.

f) The pool participants have equal access to all information available under these rules.

g) Information exchange will recognize the needs of the power pool to function as a fair and efficient market for electric energy.

10.2 Forecast Scheduling Period Data, Six Day Forecast

*The ISO will provide forecasted information for the forecast scheduling period.*

The **ISO** will use reasonable best efforts to make available before 16:00 each day, for each of the remaining 6 days within the forecast scheduling period, the following information:

a) Peak forecast AIES demand in MW for each day of the forecast scheduling period;

b) Aggregate offer/supply availability in MW for each settlement interval; and

c) A forecast adequacy assessment for each settlement interval.

10.3 Day Ahead, Trading Day Forecast

*The ISO will provide forecast information for the next trading day.*

The **ISO** will use reasonable best efforts to make available before 16:00 each day, for the next trading day the following information:

a) Peak forecast AIES demand in MW for the trading day,

b) Aggregate offer/supply availability in MW for each settlement interval.
c) A forecast **adequacy** assessment for each **settlement interval**, and
d) Such other information as the **ISO** considers appropriate.

### 10.4 Next Two Settlement Intervals Forecast

*The ISO will provide a forecast system marginal price for the next two settlement intervals.*

The ISO will use reasonable efforts to make available during the preceding two **settlement intervals** for each **settlement interval** of the trading day's operation the **forecast dispatch price** in $/MWh.

### 10.5 Settlement Interval Following

*The ISO will provide the pool price and demand as soon as practicable after each settlement interval.*

The ISO will make available during a trading day, as soon as practicable after each settlement interval, the following information for the applicable settlement interval:

a) Pool price in $/MWh,
b) AIES demand in MW, and
c) Such other information as the ISO considers appropriate.

### 10.6 Trading Day History

*Without disclosing the source of offers or bids, the ISO will provide a summary of each trading day’s activities.*

As soon as practicable following the end of each settlement interval, the ISO will update and make available histories showing:

a) **Pool price** in $/MWh for each settlement interval,
b) **AIES demand** in MW for each settlement interval,
c) **Forecast pool prices** in $/MWh for the same trading day,
d) Regarding **power pool** supply, without disclosing the source of such offers, the following as contained in the offers:
   i) **Operating block(s)** in MW,
   ii) **Price block(s)** in $/MWh,
e) Regarding **power pool** purchases and without disclosing the source of such bids the following as contained in the bids:
   i) **Operating block(s)** in MW,

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Deleted: 10.2. Forecast Scheduling Period Data, Six Day Forecast

The ISO will provide forecasted information for the forecast scheduling period.

a) Forecast pool price in $/MWh for each settlement interval of the forecast scheduling period.

b) Peak forecast AIES demand in MW for each day of the forecast scheduling period.

c) Sensitivity of forecast pool price to a +/- change in AIES demand of 150 MW and 400 MW.

d) Aggregate offer/supply availability in MW for each settlement interval.

e) Bid offer spread; based on forecast AIES demand the price of the highest, outstanding demand bid submitted that is forecasted to not be served, and the price of lowest, outstanding offer forecasted not to receive an energy market dispatch for supply.

10.3 Day Ahead, Trading Day Forecast

The ISO will provide forecast information for the next trading day.

The ISO will use reasonable best efforts to make available before 16:00 each day, for each of the remaining 6 days within the forecast scheduling period, the following information:

a) Forecast pool price in $/MWh for each settlement interval of the forecast scheduling period.

c) Sensitivity of forecast pool price to a +/- change in AIES demand of 150 MW and 400 MW.

d) Aggregate offer/supply availability in MW for each settlement interval.

e) Bid offer spread; based on forecast AIES demand the price of the highest, outstanding demand bid submitted that is forecasted to not be served, and the price of lowest, outstanding offer forecasted not to receive an energy market dispatch for supply.

f) Such other information as the ISO considers appropriate.

10.4 Next Settlement Interval Forecast

The ISO will provide a forecast pool price for the next settlement interval.

The ISO will use reasonable best efforts to make available during the preceding settlement interval for each settlement interval of the trading day’s operation the forecast pool price in $/MWh.
**10.7 ISO Records and Reports**

*The ISO will provide a weekly report on power pool transactions.*

The ISO will publish each week a report or synopsis on the power pool transactions for the previous week, including a report on AIES incidents and operating conditions relevant to the operation of the power pool.

The ISO will maintain sufficient records to support audit and verification requirements of the ISO and to support as required any surveillance activities undertaken by the Market Surveillance Administrator.

**10.8 Ancillary Services Information Provision**

*The ISO provides information on ancillary services.*

The ISO will provide to market participants in a timely fashion, AIES information indicating the amount of ancillary services being provided, the providers of ancillary services and those assets supplying specific ancillary services. The specific information to be provided is prescribed in software and procedures.

**10.9 Confidentiality**

**10.9.1 Obligations**

*The ISO and market participants will follow guidelines concerning confidential information.*

A market participant, the ISO and members of the ISO board who receive confidential information:

a) shall not disclose the confidential information to any person except as permitted by these rules;

b) shall only use or reproduce the confidential information for the purpose for which it was disclosed or another purpose contemplated by these rules; and

c) shall not permit unauthorized persons to have access to the confidential information.

In accordance with the Act and related regulations, the ISO will make available to the Market Surveillance Administrator confidential information and other records relating to market participants that are held by or become available to the ISO pursuant to its mandate under the Act.

**10.9.2 Exceptions**

f) Summary of declared changes to offer and bid availability without disclosing the source of such declared changes.

g) Summary of aggregated TMR dispatch quantities (MWh), aggregated DDS dispatches (MWh) and reference price by settlement interval.
Market participants and the ISO may disclose, use or reproduce confidential information in certain situations.

Exceptions to the obligations stated in rule 10.9.1 will be made when:

a) the disclosure, use or reproduction of information if the relevant information is at the time generally and publicly available other than as a result of breach of confidence by the pool participant wishing to disclose, use or reproduce the information (or one of its disclosures);

b) the disclosure of information by a market participant for the purposes of these rules or for the purpose of advising the relevant market participant in relation thereto and the use or reproduction of information for those purposes by:
   i) an employee, director or officer of that market participant or its affiliate or subsidiary corporation as defined in the Alberta Business Corporations Act; or
   ii) a legal or other professional adviser, auditor or other consultant of that market participant disclosing the information;

c) the disclosure, use or reproduction of information by the ISO with the consent of the person or persons who provided the relevant information;

d) the disclosure, use or reproduction of information to the extent required by law or by a lawful requirement of:
   i) any agent, government or governmental body, authority or agency having jurisdiction over a market participant or its related bodies corporate; or
   ii) any stock exchange having jurisdiction over a market participant or its affiliate or subsidiary corporation as defined in the Alberta Business Corporations Act;

e) the disclosure, use or reproduction of information if required in connection with legal proceedings, arbitration, expert determination or other dispute resolution mechanism relating to the rules and only in accordance with these rules;

f) the disclosure of information if required to protect the safety of personnel or equipment;

g) the disclosure, use or reproduction of information as an unidentifiable component of an aggregate sum.

10.9.3 Conditions

Pool participants wishing to disclose confidential information must inform and consult with those affected by the information disclosure.

In the case of a request or demand for disclosure under paragraph (d) or (e) of rule 10.9.2, the market participant shall advise those affected by the request or demand (including other market participants, the ISO board, and the ISO) as soon as reasonably practicable and shall take all reasonable steps to permit those persons affected to challenge such request or demand or seek terms and conditions in respect of any such disclosure.
11. MEDIATION AND DISPUTE RESOLUTION

11.1 Mediation Committee

A mediation committee established by the ISO board will oversee the resolution of disputes related to the power pool.

The ISO board will establish as required a non-standing mediation committee which will be comprised of ISO board representatives appointed in accordance with its bylaws.

The role of the mediation committee is to;

a) monitor each dispute's progress, report to the ISO board and if necessary recommend any other measures that may be taken to expedite the resolution of a dispute;

b) keep records relating to the resolution of disputes;

c) recommend any changes towards improving the process;

d) administer as necessary a mediation process relating to payments as per rule 8.5;

e) maintain a list of mediators, which list shall contain the names of individuals who are independent and impartial and are qualified to act as a mediator by professional qualifications or experience.

11.2 Mediation Process

11.2.1 Dispute Notification

A notice of dispute must be sent to the mediation committee prior to commencing any type of proceedings. The mediation committee must take action on a notice of dispute.

a) Except with respect to the pursuit of remedies against defaulting pool participants, if any pool participant, the ISO board, or the ISO is unable to resolve a dispute with another pool participant, with the ISO board or a committee of the ISO, or with the ISO in relation to the power pool it shall, prior to commencing an action in court, making application to the EUB or commencing any other proceedings, send a notice of dispute to the mediation committee. The notice of dispute shall contain a summary of the background to the dispute and identify the issue or issues in dispute.

b) Upon receipt of the notice of dispute, the mediation committee shall, within 15 business days:

i) attempt to contact the other pool participants and parties named in the notice of dispute to provide information concerning the dispute;

ii) examine the dispute

iii) direct the dispute to the mediation process or authorize the pool participant to proceed with court proceedings or to the EUB or otherwise as the pool participant determines is appropriate.

11.2.2 EUB Related Disputes
Disputes relating to EUB orders or directions relating to regulations under the Act shall be referred directly to the EUB for resolution.

11.2.3 Role of the ISO Board

The ISO board may assist, but has no authority to impose a settlement upon disputing parties.

The ISO board has no authority to impose a settlement upon parties. However the ISO board may, if all member representatives and the disputing parties consent, assist parties to reach a settlement of issues in dispute and in such circumstances may issue directions to override the provisions of rule 11.0 as necessary.

11.2.4 Mediator

The mediation committee will steer the appointment of an impartial mediator.

a) Where the mediation committee directs a dispute to the mediation process, the mediation committee shall at the same time provide the parties with a list of mediators maintained by the mediation committee, pursuant to rule 11.1, from which the parties shall select a mediator within 5 business days. In the event the parties cannot agree on an appointment of a mediator within 5 business days of receipt of the direction of the mediation committee, the mediation committee shall appoint a mediator from the list of mediators maintained by it.

b) No person shall serve as a mediator in a dispute in which that person has a financial or personal interest. In the event that any one of the parties subsequently complains about the selection of a mediator because of such interest, which was not known at the time of selection, the mediation committee will endeavor to appoint another mediator acceptable to all parties.

11.2.5 Mediation Sessions

Certain information must be exchanged between parties and the mediator. The mediator may consult with the parties individually, report to the mediation committee, and obtain expert advice.

a) The mediator will in consultation with all parties fix the date(s) and time(s) of each mediation session.

b) Unless dispensed with by the mediator, each party will at least 3 business days prior to the first scheduled mediation session provide the mediator and each other party with a brief setting out its views as to the issues that need to be resolved and its position with respect to each issue. Each party will also provide the mediator with all documents and information necessary to understand the issues.

c) The mediator may meet with one or more of the parties separately from the other party or parties, as the mediator may see fit, and may make recommendations to the parties for settlement. The mediator has no authority to impose a settlement upon the parties but will assist the parties to reach a settlement of the issues in dispute.
d) The mediator will report to the mediation committee from time to time, as requested by the mediation committee, on the progress of the mediation. All communications between the mediator and the mediation committee will be subject to the same obligations as to confidentiality as imposed on the mediator and the parties.

e) The mediator may obtain expert advice concerning technical aspects of the dispute provided that the parties agree and assume any expenses of obtaining such advice.

11.2.6 Authority to Terminate Mediation

Mediation sessions may be ended if further efforts would not contribute to a resolution, or is not resolved within 45 days. The mediation committee may recommend what action the ISO board may take.

The mediator may end the mediation whenever, in the judgment of the mediator, further efforts would not contribute to the resolution of any issue in dispute and shall so report to the mediation committee. If the issues in the dispute, or any of them are not resolved within 45 days from the receipt of the notice of dispute, the mediator shall forthwith report to the mediation committee as to the resolution or lack of resolution of the issues.

The mediation committee, upon receipt of the advice of the mediator that further mediation efforts would not be productive or that one or more of the issues in the dispute are not resolved after the 45 days, shall report to the ISO board within 10 days of having received the advice of the mediator and provide any recommendations as to the settlement of the dispute and further action which the ISO board might take.

The ISO board shall within 10 days of the report from the mediation committee advise the parties that the ISO board is directing that certain actions be taken in furtherance of the settlement of the dispute and, subject to such direction that the parties may proceed to take legal action or apply to the EUB or otherwise proceed with respect to the issue or issues which remain unresolved as they see fit.

11.2.7 Privacy and Confidentiality

Certain standards of privacy and confidentiality must be maintained.

a) Mediation sessions are private. Only the parties and their representatives may attend unless the parties and the mediator agree to the participation of others.

b) All information disclosed to the mediator by the parties or others in the course of mediation and identified as confidential will not be divulged by the mediator. All documents received or exchanged shall be treated as confidential by the mediator and the mediator shall not be compelled by any party to divulge such records or to act as a witness in regard to the mediation in any subsequent proceedings of any nature.

c) The parties shall maintain the confidentiality of the mediation and shall not rely upon or introduce as evidence in any proceeding of any nature:

i) views expressed or suggestions made by another party with respect to a possible settlement of the dispute;
ii) admissions made by another party in the course of the mediation;

iii) proposals made or views expressed by the mediator.

All communications relating to mediation are "without prejudice".

11.2.8 Costs and Expenses

Costs of the mediator, facilities and services will be shared among the parties.

The parties will each bear their own costs of and in connection with the mediation and will share equally the costs and expenses of the mediator and any facilities or services utilized for the mediation. The costs of participation by the ISO shall be assumed by the ISO board and collected under ISO fees.

11.3 Access to Information

Bid and offer information will not be disclosed, other than what is already prescribed in the rules.

Other than to the extent prescribed in rules 10.2, 10.3, 10.4, 10.5 or 10.6, the ISO will not disclose information as to the bids and offers received and such additional information shall not be released to a pool participant in respect of a dispute as to the settlement of accounts or otherwise.
12.1 Introduction

12.1.1 Purpose

The purpose of rule 12 is to prescribe the processes and guiding principles by which the ISO will monitor, investigate and enforce ISO rules.

The ISO will use these rules as a basis for determining whether and to what extent a market participant has contravened an ISO rule and the appropriate course of action to take in such circumstances.

12.1.2 Scope

Rule 12 applies to all ISO rules with the exception of rule 7 and rule 8. Any matter associated with rule 1.10 that is within the mandate of the Market Surveillance Administrator under the Act will be referred to the Market Surveillance Administrator.

To the extent that a matter associated with rule 1.10 is referred to the Market Surveillance Administrator and the Market Surveillance Administrator is satisfied that a market participant has contravened rule 1.10, the ISO will consider the Market Surveillance Administrator’s recommendation as part of the ISO senior management adjudication process in rule 12.5.1.

To the extent that a matter associated with rule 1.10 is referred to the Market Surveillance Administrator and the Market Surveillance Administrator recommends that the ISO revise the ISO rules, the ISO will consider this recommendation in accordance with Part 1 General – G5 of the ISO rules.

12.1.3 Authority

ISO compliance monitoring and enforcement will be conducted within the authority set forth in the ISO rules and the Act.

12.1.4 Application of Other Remedies

The action and remedies authorized under rule 12 are in addition to any other action or remedies that may be available to the ISO elsewhere in ISO rules or under law, regulation or order. Nothing in rule 12 should be construed to limit the right of the ISO to take action or seek remedies otherwise available to it, and such action or remedies may be pursued in lieu of or in addition to the action or remedies specified in rule 12.

12.2 Compliance Monitoring

12.2.1 Extent of Compliance Monitoring

The ISO will undertake such monitoring of market participants as it considers necessary to determine whether market participants are complying with ISO rules.

12.2.2 Primary Information Sources

In conducting compliance monitoring, the ISO will rely primarily upon data and information that is gathered in the normal course of the business of the ISO, along with
publicly available data and information.

12.2.3 Data or Information Request

The ISO may determine that additional data or information is required from market participants in order to monitor, review or enforce compliance with ISO rules. To the extent that such a determination is made the ISO may request a market participant possessing such data or information to provide it to the ISO within a reasonable time, in response to a written request. Such written request will be accompanied by an explanation of the need for such data or information and whether the request is made in the context of a compliance review conducted in accordance with rule 12.4. The ISO will work with the market participant to set a reasonable time within which to provide such data or information and to address any concerns regarding the need for the data or information.

The ISO will limit the use of data or information obtained in accordance with rule 12.2.3 to purposes related to compliance with ISO rules.

12.2.4 Return of Data or Information Request Material to a Market Participant

The ISO retains the right to maintain in its possession data or information obtained pursuant to rule 12.2.3 for as long as the ISO, in its sole discretion, deems necessary. Subject to this provision, the data or information obtained pursuant to rule 12.2.3 along with any copies made by the ISO will be returned to the market participant that submitted the data or information upon the written request of that market participant.

12.2.5 Failure or Refusal to Comply with a Data or Information Request

A market participant that receives a request pursuant to rule 12.2.3 will provide the ISO with all data or information that is required in order for the ISO to carry out its duties under rule 12.

If a market participant does not provide such data or information within a reasonable time, the market participant will be deemed to have contravened rule 12.2.3.

12.2.6 Confidentiality

The ISO will observe the confidentiality provisions of the ISO rules with respect to such data or information that a market participant has identified to the ISO as confidential information.

12.3 Issue Assessment

12.3.1 Monitoring, Referrals and Complaints

The ISO may become aware of possible non-compliance with an ISO rule as a result of:

a) its monitoring of market participants or through an internal referral;

b) the submission of information to the ISO by the Market Surveillance Administrator, the EUB, or the Crown;

c) an external referral; or

d) a complaint.
12.3.2 Communications to the ISO and Confidentiality

The communication information for the ISO regarding a complaint, internal referral, external referral, referral made by the Market Surveillance Administrator, the EUB or the Crown, an appeal or any other matter related to rule 12 is detailed in Appendix 4.

Internal monitoring conducted by the ISO will be done on a confidential basis, and any internal referral will be made on a confidential basis. Any complaint, communication or referral to the ISO regarding compliance with an ISO rule will be treated by the ISO on a confidential basis if requested by the complainant or referrer.

12.3.3 Preliminary Assessment

In response to an issue relating to non-compliance with an ISO rule that the ISO becomes aware through rule 12.3.1 or any other means, the ISO will conduct a preliminary assessment in order to determine whether a compliance review should be conducted. This preliminary assessment may include, but not be limited to, consideration of the following:

a) the nature of the issue regarding an ISO rule,

b) the problem or concern regarding an ISO rule;

c) the alleged failure of a market participant to comply with an ISO rule;

d) the level of frequency, severity, duration and materiality associated with the issue;

e) whether the ISO has jurisdiction regarding the issue;

f) whether the issue is related to the Power Purchase Arrangements Determinations Regulation (AR 175/2000);

g) whether a compliance review is warranted;

h) whether the actions and activities are consistent with the Act;

i) mitigating factors;

j) the impact or potential to impact other market participants; and

k) the appropriateness of communications to market participants.

Except as required by the Act, a regulatory authority with jurisdiction or ISO rules, the ISO may decline to act with respect to any specific complaint, internal referral, external referral, or any other referral or request if the ISO considers:

a) the complaint, referral or request is frivolous, vexatious, trivial or otherwise does not warrant action on the part of the ISO; or,

b) the subject - matter is under the jurisdiction of another authority.

The ISO will provide a written response regarding its preliminary assessment, as soon as reasonably practical, to the party making a referral pursuant to rule 12.3.1(b), or to the party making a complaint.
12.4 Compliance Review

12.4.1 Notification to Market Participant

Where the ISO determines, as a result of a preliminary assessment as outlined in rule 12.3.3, that a market participant may have failed to comply with an ISO rule and that a compliance review of the issue is warranted, the ISO will provide notice as soon as reasonably practical to the market participant that an ISO rule may have been contravened.

The ISO will follow the compliance review process as outlined in rule 12.4.3. However, the ISO may modify this process, as required, in order to accommodate any unique circumstances that may exist.

12.4.2 Compliance Review Guidelines

In conducting a compliance review, the ISO will take into consideration the following guidelines:

a) Whether a market participant failed to comply with an ISO rule, and any information or evidence that would support such a finding.

b) The frequency, duration, materiality and severity of any failure to comply with or alleged failure to comply with an ISO rule by a market participant.

c) Whether a market participant disclosed the matter to the ISO on its own or whether it was prompted to do so, and any other actions that a market participant took upon becoming aware of non-compliance with an ISO rule.

d) Whether the actions or activities of a market participant might have an impact, or the potential to impact, other market participants.

e) Whether the actions or activities of a market participant are consistent with the Act.

12.4.3 Compliance Review Process

The compliance review process will be conducted on a confidential basis.

As part of the compliance review process, a time period will be established and communicated to a market participant that is the subject of a compliance review within which the market participant will be permitted to make written representations in response to the allegations.

In addition, a market participant that is the subject of a compliance review will be advised of the right to request a meeting with the ISO to discuss the matter.

The compliance review process may include, but not be limited to, the following:

a) Define the issue or the alleged failure to comply with an ISO rule;

b) Speak with or correspond with relevant market participants regarding the alleged failure to comply with an ISO rule;
c) Collect and analyze data considered relevant to the alleged failure to comply with an ISO rule (including but not limited to the frequency and duration of the issue under review, the physical constraints associated with an asset, and any past failures of a market participant to comply with an ISO rule);

d) Consider any representations that may be made by a market participant that is the subject of the alleged failure to comply with an ISO rule;

e) Evaluate and consider the details of the information and evidence regarding whether a market participant may have failed to comply with or continue to be failing to comply with an ISO rule;

f) Take into consideration the compliance review guidelines outlined in rule 12.4.2;

g) Consider the sanctions that may be imposed if the failure to comply with an ISO rule is established in accordance with rule 12.6;

h) Take into consideration any failure or refusal of a market participant to co-operate with the ISO;

i) Prepare a preliminary report; and,

j) Prepare preliminary recommendations as a result of the compliance review.

Following the completion of a preliminary report and any preliminary recommendations prepared as a result of the compliance review, the market participant that is the subject of the alleged failure to comply with an ISO rule will be afforded an opportunity to:

a) Review the preliminary report and any preliminary recommendations prepared as a result of the compliance review;

b) Submit written information requests to the ISO regarding the contents of the preliminary report and any preliminary recommendations prepared as a result of the compliance review; and,

c) Furnish relevant evidence to contradict or explain the facts or allegations.

Following the steps outlined above in a) – c), the ISO will prepare a final report, final recommendations and a draft ISO order (if applicable) for consideration by ISO senior management. The market participant that is the subject of a compliance review will be provided with a copy of such final report, final recommendations and draft ISO order (if applicable).

12.4.4 Recommendations Made as a Result of a Compliance Review

A recommendation to ISO senior management made as part of a compliance review by the ISO may include, but not be limited to, any one or more of the following recommendations as well as accompanying draft ISO order (if applicable):

a) To dismiss the issue;

b) To refer the issue to another agency;

c) That there is insufficient evidence that a market participant has failed to comply
with an ISO rule;

d) That there is sufficient evidence that a market participant has failed to comply with an ISO rule and a recommendation of the appropriate sanction;

e) To extend the time frame of the compliance review and to further review the matter as the ISO determines appropriate;

f) To implement additional monitoring of a market participant;

g) To direct or request that a market participant undergo appropriate additional training;

h) To initiate a proposed change in the ISO rules.

12.4.5 Proposed ISO Rule Changes

Subject to Part 1 General – G5 of the ISO rules, to the extent that the ISO proposes to change ISO rules in response to rule 12.4.4 (h) or in response to a recommendation made by the Market Surveillance Administrator pursuant to rule 12.1.2, the ISO will advise market participants and interested parties of the reasons for the proposed ISO rule change and of any actions or behaviours of market participants that are of concern to the ISO.

12.5 ISO Adjudication

12.5.1 ISO Senior Management Adjudication Process

Following the completion of the compliance review process, the ISO will commence an ISO senior management adjudication process.

Prior to the commencement of the ISO senior management process, a time period will be established and communicated to a market participant that is the subject of such a process within which the market participant may make written representations to ISO senior management to show cause as to why the recommendation as a result of the compliance review or the recommendation as a result of the Market Surveillance Administrator’s investigation in conjunction with rule 12.1.2 and draft ISO order (if applicable) should not be issued against it.

The ISO senior management review process may include, but not be limited to, one or more of the following:

a) Consideration of the compliance review guidelines outlined in rule 12.4.2;

b) Consideration of any representations that may be made by a market participant that is the subject of the alleged failure to comply with an ISO rule;

c) Consideration of any representations that may be made regarding the Power Purchase Arrangements Determinations Regulation (AR 175/2000), if applicable;

d) Consideration of any representations that may be made regarding the Terms and Conditions of a Transmission Tariff, if applicable;
e) Consideration of the final compliance review report, accompanying recommendations and accompanying draft ISO order (if applicable);

f) Consideration of any recommendation made by the Market Surveillance Administrator, if any, made in accordance with rule 12.1.2;

g) Consideration of the sanctions that may be imposed in accordance with rule 12.6;

h) Consideration of any failure or refusal of a market participant to co-operate with the ISO;

i) Consideration and a determination to accept, modify or reject the recommendations and draft ISO order made as a result of the compliance review; and,

j) Consideration and a determination regarding the extent and manner in which the ISO written decision with reasons will be communicated to the complainant, other market participants and the public.

12.5.2 Written Decision with Reasons

The ISO will prepare and provide a written statement of its decision setting out the findings of fact on which it based its decision and the reasons for the decision regarding the ISO senior management adjudication and any ISO order issued. Such order and decision shall be provided as soon as reasonably practical to the market participant that is the subject of the senior management adjudication process as well as any other parties as determined as part of the ISO senior management adjudication process. Unless otherwise determined as part of the senior management adjudication process, the ISO order and decision will remain confidential, and will not be disclosed by any party to any third party beyond those determined as part of the ISO senior management adjudication process.

A written decision with reasons will include, but not be limited to:

a) The ISO rule that has been contravened (if any);

b) The ISO’s assessment of the level of non-compliance in accordance with rule 12.6.3 (if applicable); and,

c) The specific enforcement actions that may apply to the non-compliant market participant (if applicable).

12.5.3 ISO Orders

To the extent that ISO senior management, following its adjudication, is satisfied that a market participant has contravened an ISO rule, the ISO may, by order, do one or more of the following:

a) Issue a warning letter or a non-compliance letter to a market participant;

b) Direct a market participant to do, within a specified period of time, such things as may be necessary to comply with an ISO rule;

c) Direct a market participant to cease, within a specified period of time, the act, activity or practice that constituted the contravention of an ISO rule;
d) Impose additional record-keeping or reporting requirements on a market participant;

e) Impose an administrative penalty on a market participant of not more than $100,000 a day for each day on which a contravention occurs or continues;

f) Subject to rule 12.6.7, deny, suspend, restrict or terminate the right of a market participant to exchange electric energy through the power pool or to participate in any other market operated by the ISO;

g) Impose another sanction that the ISO considers appropriate.

When making an ISO order, the ISO may take into consideration any failure or refusal of a market participant to co-operate with the ISO.

12.6 Sanctions

12.6.1 Introduction

Where ISO rules provide for consequences in respect of a contravention by a market participant of a particular ISO rule, those consequences will apply in the circumstances and in the manner provided for in the relevant sections of ISO rules, in addition to such sanctions as may be imposed pursuant to rule 12, except as limited by the provisions of rule 12.1.2.

Unless otherwise specified in rule 12.6, any sanction issued by the ISO in the form of an ISO order will be dealt with by the ISO on a case-by-case basis.

12.6.2 Sanction Process

To the extent that the ISO determines that it would be appropriate to issue to a market participant, by ISO order, a warning letter, a non-compliance letter or to impose an administrative penalty, the ISO may:

a) Determine the level of non-compliance by the market participant in accordance with rule 12.6.3;

b) Determine the frequency of non-compliance by the market participant of the ISO rule in question;

c) Consider any mitigating factor regarding the contravention of an ISO rule, as outlined in rule 12.6.5;

d) Based on a) – c) above, and any other consideration relevant to the circumstances, determine whether to issue a warning letter, a non-compliance letter or to impose an administrative penalty in accordance with the rule 12.6.4.

12.6.3 Levels of Non-Compliance

The ISO will determine the level of non-compliance referred to in rule 12.6.2 as follows:

Level 1: Instances where a market participant has failed to comply, in whole or in part, with all of the requirements of an ISO rule, and where such non-
compliance has *little or no impact* on other *market participants*, the operation of the market or the *system controller’s* ability to direct the safe, reliable and economic operation of the *AIES*, as determined solely by the *ISO*;

**Level 2:** Instances where a *market participant* has failed to comply, in whole or in part, with all of the requirements of an *ISO rule*, and where such non-compliance has a *material impact* on other *market participants*, the operation of the market or the *system controller’s* ability to direct the safe, reliable and economic operation of the *AIES*, as determined solely by the *ISO*;

**Level 3:** Instances where a *market participant* has failed to comply, in whole or in part, with all of the requirements of an *ISO rule*, and where such non-compliance has a *severe impact* on other *market participants*, the operation of the market or the *system controller’s* ability to direct the safe, reliable and economic operation of the *AIES*, as determined solely by the *ISO*.

Where the level of non-compliance cannot be clearly assessed or determined to be in one of two consecutive levels, the *ISO* will assess the failure to comply at the lower of the two levels.

### 12.6.4 Sanctions Matrix

To the extent that the *ISO* determines that it would be appropriate to issue a warning letter or a non-compliance letter to a *market participant* or to impose an administrative penalty on a *market participant*, the *ISO* will after considering rule 12.6.2 impose a sanction within the ranges outlined in the Sanctions Matrix associated with Rule 12 – *ISO Compliance Monitoring and Enforcement* found in the Schedule of Administrative Penalties.

Nothing in this rule shall prevent the *ISO* from imposing a sanction for failure by a *market participant* to remedy a contravention in respect of which a warning letter or a non-compliance letter has been issued by the *ISO*.

### 12.6.5 Mitigating Factors

To the extent to which a *market participant’s* failure to comply with an *ISO rule* is caused by any one or more of the following, the *market participant* will be determined to not be in contravention of an *ISO rule*:

a) An event of *force majeure* affecting the *market participant*; provided however, that the *market participant* gives written notice to the *ISO* of the *force majeure* in reasonable detail as promptly as possible after it knows of the event or condition and makes all reasonable efforts to cure, mitigate, or remedy the effects of the event or condition;

b) a circumstance related to the operation of the *asset* or *transmission facility* which if it operated could reasonably be expected to affect the immediate safety of the asset, the environment, staff or the public;

c) Actions or omissions that are consistent with *good electric operating practice* in a *system emergency*.
d) Actions or omissions specifically required by a regulatory authority with jurisdiction;

e) Actions or omissions in compliance with an ISO directive; or,

f) Actions or inactions in response to a directive made by the system controller.

12.6.6 Posting of an Administrative Penalty

Subject to the complaints process in rule 12.7.4 being exhausted, the market participant against whom an administrative penalty has been applied will be posted to the public website maintained by the AESO. The website posting will include the name of the market participant, the ISO rule that was contravened and the amount of the administrative penalty.

12.6.7 Order to Deny, Suspend, Restrict or Terminate the Right to Exchange Energy

ISO senior management may during the adjudication outlined in rule 12.5.1 determine that it would be appropriate to issue an ISO order denying, suspending, restricting or terminating the right of a market participant to exchange energy through the power pool or to participate in any other market operated by the ISO. In such circumstances, the ISO will in addition to the process identified in rule 12.5.1 permit the market participant to make an oral representation to ISO senior management to show cause as to why the recommended ISO order should not be issued against it.

12.6.8 Posting an Order to Deny, Suspend, Restrict or Terminate the Right to Exchange Energy

Upon the issuance of an ISO order to a market participant denying, suspending, restricting or terminating the right of that market participant to exchange electric energy through the power pool or to participate in any other market operated by the ISO, a posting will be made to the public website maintained by the AESO and a notice of posting will be sent to all market participants. The website posting will include the name of the market participant, the ISO rule that was contravened and the nature of the ISO order.

12.7 Appeal of Sanctions

12.7.1 Introduction

A market participant that is the subject of a warning letter or a non-compliance letter may file an appeal of that warning letter or non-compliance letter in accordance with rule 12.7.

12.7.2 Appeal of a Warning Letter

A market participant that receives a warning letter from the ISO and does not agree with the assessment or other contents of the warning letter may appeal the contents of the warning letter.

An appeal of a warning letter must be in writing, and must be received by the ISO Senior Legal Counsel at the address identified in Appendix 4 within thirty (30) days of the date of the warning letter. A copy of the appeal must also be sent to compliance@aeso.ca.

The determination of the ISO Senior Legal Counsel will be final and not subject to further appeal within the ISO.
12.7.3 Appeal of a Non-Compliance Letter

A market participant that receives a non-compliance letter from the ISO and does not agree with the assessment or other contents of the non-compliance letter may appeal the contents of the non-compliance letter.

An appeal of a non-compliance letter must be in writing, and must be received by the ISO Chief Executive Officer at the address identified in Appendix 4 within thirty (30) days of the date of the non-compliance letter. A copy of the appeal must also be sent to compliance@aeso.ca.

The determination of the ISO Chief Executive Officer will be final and not subject to appeal within the ISO.

12.7.4 Complaints to the EUB

Any person may make a written complaint to the EUB about an ISO order pursuant to provisions of the Act.

12.8 Administration and Enforcement

12.8.1 Administration and Payment of Administrative Penalties

The ISO will provide the Balancing Pool with ISO orders that impose an administrative penalty by the ISO along with the name of the market participant, relevant contact information and the due date of the administrative penalty. Payment of an administrative penalty imposed by the ISO must be paid to the Balancing Pool, in full, by the due date specified in the request for payment issued by the Balancing Pool.

12.8.2 Enforcement of ISO Orders

Enforcement of ISO orders will be conducted within the authority set forth in the Act.

12.8.3 Time Guidelines

The ISO will take all reasonable steps to commence a preliminary assessment of an issue within thirty (30) days of the discovery of the issue or the circumstances being first reported to the ISO, and will take all reasonable steps to complete a preliminary assessment of an issue within thirty (30) days of the commencement of a preliminary assessment.

The ISO will take all reasonable steps to complete a compliance review within a period of ninety (90) days from the completion of the preliminary assessment.

The ISO may modify the above time schedules in order to accommodate any unique circumstances that may exist.

Sanctions may be assessed under rule 12 up to two (2) years after the date of the ISO being aware or being deemed to be aware of the non-compliance.
Part Three
Policies & Procedures
Please click here to see ISO Operating Policies and Procedures.
Part Four
Appendices
Terms bolded in this pool participant application registration form have the meaning given to them in the ISO rules.

1. **Application**

   _____________________________________________________________________________
   (insert full legal name) (the "Applicant") hereby applies to the ISO to be registered as a pool participant.

2. **Eligibility of Applicant**

   The Applicant represents and warrants that it will exchange electric energy through the power pool as a market participant, or provide ancillary services by virtue of its status as (check one or more as applicable):

   ______ the owner of a generating unit
   ______ the owner of an industrial system pursuant to the Act
   ______ an ancillary service provider
   ______ a PPA buyer
   ______ a retailer
   ______ a regulated rate provider
   ______ a self retailer
   ______ a marketer
   ______ other (subject to specific ISO approval)

3. The following is a brief description of the eligibility criteria indicated in Section 2 of this application and the Applicant has also enclosed a completed asset addition form.

   _____________________________________________________________________________
   _____________________________________________________________________________

4. **Prudential Requirements**

   The Applicant has reviewed the prudential requirements of the rules and as of the date of this pool participant application registration form, the pool participant proposes to satisfy such requirements in the following manner (give details confirming how the Applicant is in compliance with prudential requirements, including copies of necessary documents to demonstrate satisfaction of the same, together with details as to financial strength and position of Applicant; additional pages may be attached):

5. **Further Information**

   The Applicant acknowledges and agrees that in addition to the information provided in connection with this pool participant application registration form it will be required to provide such further and other information to the ISO as may be required at any time and from time to time by the rules.
6. **Metering and System Access Service Requirements**

The Applicant, if intending to act as an **importer** and/or **exporter**, represents and warrants that:

- it has entered into either a valid system access service agreement with the **ISO**, dated ___________, and such agreement is in full force and effect; or
- it is otherwise eligible to receive system access service in accordance with the current tariff schedule of the **ISO**.

(check applicable part)

The Applicant, if it intends to financially settle on **metered** volumes, represents and warrants that the **metered** volumes will be arranged to be provided to the **ISO** by a **meter data manager**, **load settlement agent** and/or a source otherwise approved by the **ISO**.

7. **Agent Appointment Request Form**

If appointing an **agent**, the Applicant has executed and delivered an **agent** appointment request in the form provided by the **ISO**.

8. **Pool Participant Agreement**

The Applicant has executed and delivered a Pool Participant Agreement in the form provided by the **rules**.

9. **Acknowledgment**

The Applicant acknowledges that the **ISO**:

a. has the authority to review this application and determine in its reasonable opinion whether the Applicant may be registered as a **pool participant**;

b. may require additional information or authorizations in respect of creditworthiness, facility connection requirements, agency relationships or otherwise to be submitted by the Applicant before making such determination; and

c. may approve of such registrations of the Applicant on such terms and conditions as it considers reasonable, including the satisfaction of prudential requirements, facility connection requirements, agency relationships or any other requirements of the **rules**.

10. **GST Number**

The Applicant acknowledges that exchanges in the **ISO** are transactions for which Goods and Services Tax (GST) are taxable, and that a GST registration number is required for the Applicant unless the Applicant is GST exempt. If not exempt, the Applicant acknowledges that its GST registration number is ___________.
11. **Annual Participation Fee**

The Applicant encloses herewith the sum of $________________ including Goods and Services Tax in payment of its first annual pool participation fee of $________________ and its registration fee of $________________ as required by the rules.

12. **Applicant Contact Information**

   a) Please provide for the Applicant identified in 1 above:
      Mailing Address:
      Main Telephone Number:
      Main Fax Number:

   b) Corporate Contact (for purposes of regular correspondence and bid/offer information)
      Contact Name:
      Telephone Number:
      Fax Number:
      Email Address:

   c) Financial Settlement Contact:
      Contact Name:
      Telephone Number:
      Fax Number:
      Email Address:

   d) Applicant Internal Treasury/Banking Contact - if different from (c)
      Contact Name:
      Telephone Number:
      Fax Number:
      Email Address:

   e) Load Settlement Contact (for purposes of providing load settlement information, and gathering input regarding changes to Load Settlement Rules)
      Contact Name:
      Telephone Number:
      Fax Number:
      Email Address:

13. **Banking Information**

The Applicant encloses the banking information required by the ISO for purposes of power pool settlements.

14. **Energy Bulletin Board**

Indicate below if you wish to have your corporate contact information included on the Alberta Electric System Operator’s “Energy Bulletin Board”. (Please attach information if the contact for this purpose is different than the corporate contact above.) The Energy Bulletin Board is an Internet meeting place for electricity buyers and sellers to try to arrange sales directly with one another.  Yes  No
15. **Information Changes**

The Applicant acknowledges that it is its responsibility to advise the ISO of any changes to any of the information provided by it in this pool participant application registration form.

DATED the ______ day of ________________________, ________

(Name of Applicant)

Per: ____________________________________
This Agreement is made as of the _____ day of ________________, _______ between:

__________________________________________________, having an office at
______________________________, having an office at
__________________________________________________, having an office at
________________________________________________________________________

(address)

(full legal name of pool participant)

The participant

- and -

The Independent System Operator, operating under the registered trade name Alberta Electric System Operator.

Whereas:

The participant wishes to participate in the power pool or provide ancillary services on terms which conform to the ISO rules which may be modified from time to time and are otherwise in conformity with the Act.

**Article 1**

**Interpretation**

1.1 **Definitions**

a. Terms and expressions defined in the Act or in the rules shall have those meanings when used herein.

b. "rules" shall mean the ISO rules established pursuant to the Act, as the same may be amended from time to time as contemplated by rule G5 of the ISO rules, together with such schedules thereto and any other ancillary operating codes or specifications which may be adopted by the ISO from time to time as part of the ISO rules.
Article 2
Agreement to be Bound by ISO rules

2.1 Covenants of the Participant

The participant agrees that:

a. the ISO rules constitute the authorized code of rules governing the operation of the power pool and system control, including rules in respect of membership criteria, bidding, settlement, prudential requirements for participants, information reporting requirements, confidentiality restrictions and ancillary services;

b. it will abide by, and will perform all of its obligations under the ISO rules in respect of all matters set forth therein including, without limitation, all matters relating to exchanges of electric energy by it through the power pool, ongoing obligations in respect of bidding and financial settlement of any adjustments in respect thereof and all ongoing obligations including those relating to prudential requirements, confidentiality and dispute resolution; and

c. its status as participant is at all times subject to the ISO rules, and, in particular, that its participation in the power pool or other ISO market may be terminated in accordance with the ISO rules.

2.2 Acknowledgment re Limitation of Liability

The participant acknowledges and accepts the limitation of liability of the ISO board, the ISO, pool participants in the power pool and other persons as set forth in the ISO rules.

2.3 No Waiver or Abrogation of Remedies

Nothing in Section 2.1 or Section 2.2 shall constitute a waiver by the participant of or an abrogation of any right or remedy available to the participant at law or in equity to see such changes to the ISO rules or any other determination in respect of the just and reasonable operation of the ISO.

Article 3
Term

3.1 Term

This Agreement shall commence on the date the participant is registered as a participant in the ISO and shall terminate on December 31 of the same year in which the participant was so registered. Thereafter, unless terminated in accordance with the ISO rules, this Agreement is renewable for succeeding terms of one calendar year each in accordance with the renewal provisions of the ISO rules and upon payment of such annual or other fees as may be required there in.
Article 4
General

4.1 No Assignment; Successors
This Agreement shall not be assignable by the participant. This Agreement may enure to the benefit of and be binding on the successors at law of the participant through amalgamation or reorganization (if the participant is a corporation), provided that the ISO reserves the right to approve or reject any successor as a participant for purposes of this Agreement in accordance with the eligibility requirements for participants set forth in the ISO rules.

4.2 Partial Invalidity
If any provision of this Agreement, or the application of such provision to any persons, circumstance or transaction, shall be held invalid, the remainder of this Agreement, or the application of such provision to other persons or circumstances or transactions, shall not be affected thereby.

4.3 Further Assurances
The parties shall execute and deliver all documents, provide all information and take or refrain from taking all actions necessary or appropriate to achieve the purposes hereof, and shall do all such things as may be required from time to time by the ISO or the ISO rules.

4.4 Representations and Warranties
The participant represents and warrants as follows:
   a. the statements made by the participant in the participant application registration form submitted by it to the ISO are true and correct; and
   b. the participant has all requisite power, authority and capacity and has received all necessary authorizations enabling it to execute and deliver this Agreement and the pool participant application registration form to perform all obligations required of it by the ISO rules.

4.3 All notices, communications, requests or other statements (collectively "Notices") given hereunder shall be in writing and shall be deemed to have been properly given if delivered by hand or sent by facsimile to the number shown opposite its signature below. Any such Notice shall be effective on the date delivered or sent, as the case may be, unless delivered or sent other than on a business day or after 5:00 p.m. at the place of delivery or receipt in which case it shall be effective on the next business day.

Notice Address:
   •
   Attn.:
   Fax:
IN WITNESS WHEREOF this Agreement has been executed as of the date first above written.

- (Pool Participant)

Per: ______________________________
Name and Office Held (Print)

Per: ______________________________
Name and Office Held (Print)

The Independent System Operator, operating under the registered trade name Alberta Electric System Operator.

Attn.: • Account Manager
Fax: • (403) 543-0388

Per: ______________________________
APPENDIX 3 - POOL PARTICIPANT PRUDENTIAL REQUIREMENTS

1. General

Subject to the review and reassessment of the prudential requirements of a pool participant by the ISO from time to time and as otherwise provided in these rules, and subject to any further direction of the ISO on the application of a pool participant or applicant to be accepted as a pool participant, a pool participant will be deemed to have met the ISO’s prudential requirements if the pool participant has met all its financial obligations and the financial security requirements of the ISO in accordance with this appendix.

2. Pool participant Financial Security Requirements

A pool participant shall provide the ISO financial security as determined in accordance with this appendix. The amount of financial security required to be provided by a pool participant is the amount by which a pool participant’s financial obligations owing to the ISO for two settlement periods exceeds the amount of any unsecured credit limit granted to the pool participant as determined in accordance with Sections 3 or 4 of this appendix.

The ISO will determine a pool participant’s financial obligations owing to the ISO by taking the actual net energy consumed for the two most recent settlement periods, adjusted for any anomalies, by the pool participant and multiplying it by an estimated pool price. The net energy consumed is defined as the energy consumed by a pool participant less energy purchased from a third party by the pool participant using net settlement instructions less energy produced by the pool participant plus energy sold to a third party by the pool participant using net settlement instructions. For new pool participants, the pool participant shall provide to the ISO, as part of its application, its estimated net energy to be consumed for two settlement periods.

The form of the financial security to be provided by the pool participant shall be in the form as prescribed in Section 6 of this appendix.

3. Unsecured Credit Limit – Rated Companies

Pool participants (or a guarantor of a pool participant) who have a long-term unsecured debt rating (“credit rating”) from an acceptable bond rating agency may obtain an unsecured credit limit from the ISO. Acceptable rating agencies include the Dominion Bond Rating Service, Standard & Poor’s and Moody’s Investor Service. Other rating agencies may be accepted at the sole discretion of the ISO. If the pool participant or guarantor is rated by more than one rating agency, then the ISO will rely on the lowest credit rating when establishing the unsecured credit limit.

The ISO will grant up to the following unsecured credit limit for each pool participant or guarantor in relation to the relevant, established, credit rating of the pool participant or guarantor (or equivalent credit rating):

<table>
<thead>
<tr>
<th>Rating</th>
<th>Unsecured Credit Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>$25,000,000</td>
</tr>
<tr>
<td>AA</td>
<td>$20,000,000</td>
</tr>
<tr>
<td>A</td>
<td>$15,000,000</td>
</tr>
<tr>
<td>BBB</td>
<td>$10,000,000</td>
</tr>
<tr>
<td>&lt;BBB</td>
<td>$0</td>
</tr>
</tbody>
</table>

A credit rating with a plus or minus sign indicates the relative standing within the major rating categories. The base rating shall be considered when determining creditworthiness; for example, an “AA minus” would be considered an “AA” for purposes of the applicable unsecured credit limit in the above table. An exception to this is a rating of BBB minus which falls in the <BBB category and therefore no unsecured credit limit is granted.
4. Unsecured Credit Limit – Non Rated Companies

For a pool participant (or guarantor of a pool participant) that does not have a credit rating from a ratings agency or has a credit rating from a ratings agency not recognized by the ISO, the pool participant or guarantor may apply to the ISO for an unsecured credit limit based on a proxy credit rating to be determined by the ISO. The ISO may prepare the proxy credit rating for the pool participant or guarantor at its sole discretion. In order for a proxy credit rating to be determined by the ISO, the pool participant or guarantor must provide to the ISO its latest audited annual financial statements and other financial and non financial information required by the ISO to determine a proxy credit rating. The ISO will grant up to the following unsecured credit limits to a non-rated pool participant or guarantor based on the credit ratings scale as follows:

<table>
<thead>
<tr>
<th>Proxy Credit Rating</th>
<th>Unsecured Credit Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>$10,000,000</td>
</tr>
<tr>
<td>AA</td>
<td>$5,000,000</td>
</tr>
<tr>
<td>A</td>
<td>$2,500,000</td>
</tr>
<tr>
<td>BBB</td>
<td>$1,250,000</td>
</tr>
<tr>
<td>&lt;BBB</td>
<td>$0</td>
</tr>
</tbody>
</table>

Pool participants who are formed or operate under Acts of the Province of Alberta (other than the Business Corporations Act) may be granted an unsecured credit limit at the sole discretion of the ISO.

The amount of the unsecured credit limit provided to a non-rated pool participant or guarantor can not exceed .5% of the pool participant’s Tangible Net Worth. Tangible Net Worth is defined as the total assets less total liabilities less intangible assets (i.e. goodwill, trademarks, etc.) of the pool participant or guarantor as the case may be.

General information requirements for non-rated pool participants who qualify for an unsecured credit limit are as follows:

- The pool participant or guarantor must have audited annual financial statements and those audited annual financial statements must be submitted to the ISO within 120 days after the pool participant’s or guarantor’s year-end;
- The pool participant or guarantor must provide unaudited quarterly financial statement to the ISO within 60 days after the pool participant’s or guarantor’s quarter end;
- In addition to annual audited financial statements, the pool participant on an annual basis must provide the ISO a general description of its business, its business risks and how the pool participant manages its business risks;
- The pool participant must provide to the ISO notice of any material adverse change within two business days after a material adverse change event occurs;
- The pool participant or guarantor must provide the ISO any other financial information or non financial information, as requested by the ISO at the ISO’s sole discretion;

A pool participant or guarantor, who fails to meet any of the general information requirements, may have its unsecured credit limit reduced by the ISO and in which case the pool participant may be required to provide the ISO additional security in accordance with Section 8 of this appendix.

The ISO will review the pool participant’s or guarantor’s proxy credit rating and financial and non financial information at least annual basis. The ISO will notify the pool participant in writing of any changes in the assigned proxy credit rating, unsecured credit limit and financial security requirements of the pool participant.

5. Parent, Subsidiary and Affiliated Company Unsecured Credit Limits
A pool participant, who is a subsidiary company, may request for an unsecured credit limit under Section 4 of this appendix even though its parent company has a credit rating from a ratings agency that is acceptable to the ISO. The unsecured credit limit granted to the pool participant will be based on the lower of the parent company’s credit rating and the pool participant’s proxy credit rating as determined in accordance with Section 4 of this appendix.

Only one unsecured credit limit will be granted to a related group of companies including parent, subsidiary and affiliated company relationships.

6. Forms of Financial Security

Generally, the security must be in the form of one of the following:

Letter of Credit – an unconditional and irrevocable standby letter of credit, payable on demand. The letter of credit must be issued from a Canadian chartered bank or other comparable financial institution, with at least an A minus rating from Standard & Poor’s or similar rating from a recognized rating agency executed in favor of the ISO, and be in form and substance acceptable to the ISO, acting reasonably. If the letter of credit proposed to be provided to the ISO is from a financial institution that is based outside of Canada, the ISO, at its sole discretion, may determine whether to accept the letter of credit or not.

Cash Deposit – cash is an acceptable form of security. A Cash Collateral Agreement must be provided to the ISO by the pool participant and such agreement must be in form and substance satisfactory to the ISO. Cash received as a security will be registered by the ISO under the Personal Property Act and the pool participant will be required to obtain any required bank waivers as required by the ISO.

Guarantee - The guarantee must be a written, irrevocable, continuous and unconditional guarantee that is payable on demand and be in form and substance acceptable to the ISO, acting reasonably. The ISO will attribute as financial security up to the unsecured credit limits prescribed in Section 3 of this appendix for guarantors who have a long term unsecured debt rating from an ISO recognized ratings agency or prescribed in Section 4 of this appendix for non-rated guarantors. At any time after the attributing an amount of financial security for a guarantor and regardless of the credit rating of the guarantor, the ISO at its sole discretion may reduce the amount of financial security attributed to a guarantor. The ISO will notify the pool participant in writing of such reduction and the new amount of financial security attributed to the guarantor. The pool participant must provide the ISO any additional financial security required by the ISO within two business days of receiving such written notice.

7. Material Adverse Change

If a pool participant (or guarantor) suffers a material adverse change, or is aware of a likely material adverse change occurring, they must inform the ISO no later than 2 business days after the occurrence of the material adverse change.

The ISO will determine the impact of the material adverse change on the pool participant’s (or guarantor’s) unsecured credit limit and on the financial security required to be provided to ISO by the pool participant. ISO will notify the pool participant of the amount of additional financial security required to be provided by the pool participant. The additional financial security must be provided by the pool participant to the ISO within two business days from the date the ISO notified the pool participant.

8. Additional Financial Security

At any time after the granting of an unsecured credit limit to a pool participant and regardless of the pool participant’s credit rating or proxy credit rating, the ISO at its sole discretion may reduce the unsecured credit limit granted to a pool participant. The ISO will immediately notify the pool participant in writing of any decrease in unsecured credit limit attributed to the pool participant and the amount of additional security that must provided to the ISO by the pool participant.
If a pool participant’s estimated financial obligations owing to the ISO for two settlement periods exceeds the unsecured credit limit granted to the pool participant, plus the amount of any financial security provided by the pool participant, the ISO may request in writing additional financial security from the pool participant.

Any additional financial security requested by the ISO must be provided by the pool participant within two business days of the pool participant receiving written notice to do so. If the pool participant fails to provide the additional financial security within two business days of receiving written notice to do so, the ISO may suspend the pool participant’s trading privileges in accordance with rule 1.4 until such time as the additional financial security is provided to the ISO.

9. Reductions in Financial Security

At the written request of a pool participant, the ISO will consider, at its sole discretion, a reduction in the pool participant’s financial security requirements when it is determined that a pool participant’s unsecured credit limit plus financial security provided exceeds the pool participant’s estimated financial obligations for two settlement periods for an extended period of time or if a pool participants credit rating has been upgraded.

10. Financial Security Costs

All costs associated with the obtaining financial security and meeting prudential requirements are the responsibility of the pool participant.
APPENDIX 4 - COMMUNICATIONS WITH ISO

Offers, bids, operating constraints and ancillary service declarations in accordance with rule 3 and net settlement instruction data in accordance with rule 4 is to be submitted to the following:

Electronic Address:  office@aeso.ca

Website www.aeso.ca

Phone Number: (403) 539-2450

Faxsimile Number: (403) 539-2949

Courier Address: 2500, 330 - 5th Ave SW
               Calgary, Alberta
               T2P 0L4

System Controller:

Faxsimile Number: (403) 261-7864

A complaint, internal referral, external referral, referral made by the Market Surveillance Administrator, the EUB or the Crown, an appeal and any other matter related to rule 12 is to be submitted to the following:

Electronic Address: compliance@aeso.ca
Phone Number: (403) 539-2779

Facsimile Number: (403) 539-2762

Courier Address: Alberta Electric System Operator
                Calgary Place
                Attention: Compliance Monitoring
                2500, 330 - 5th Ave SW
                Calgary, AB T2P 0L4
## APPENDIX 5 - INFORMATION TO BE PROVIDED THROUGH THE ISO

<table>
<thead>
<tr>
<th>Information Type / Availability</th>
<th>6 days Ahead, Over Forecast Scheduling Period</th>
<th>Day Ahead - Trading Day Forecast</th>
<th>Settlement Interval Ahead</th>
<th>Real Time</th>
<th>Following Settlement Interval</th>
<th>Following End of Settlement Period</th>
<th>Historical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast Dispatch Price in $/MWh</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
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<tr>
<td>Forecast Pool Price/Settlement interval in $/MWh</td>
<td>√</td>
<td></td>
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</tr>
<tr>
<td>Forecast Peak Hour AIES demand, MW</td>
<td>√</td>
<td>√</td>
<td></td>
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<td>√</td>
</tr>
<tr>
<td>Aggregate Offer/Supply Availability, MW/h</td>
<td>√</td>
<td></td>
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<tr>
<td>Adequacy Assessment</td>
<td>√</td>
<td>√</td>
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<td>√</td>
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<tr>
<td>Price Block setting System Marginal Price (Source Kept Confidential)</td>
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<tr>
<td>Actual Pool Price in $/MWh/Settlement Interval</td>
<td></td>
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<tr>
<td>Actual AIES demand in MW/hour</td>
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<tr>
<td>Detail Associated With Offers + Bids (Source Kept Confidential)</td>
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<tr>
<td>Current Supply &amp; Demand</td>
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<td>√</td>
</tr>
<tr>
<td>Actual Energy Production MW/Asset/hour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual Energy Consumption MW/hour demand</td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:** (Shading Indicates Not Applicable)

- √: Information made available to any party through power pool
- <: Information to be made available to any party, through power pool in later stages of power pool implementation
APPENDIX 6 - TERMS AND CONDITIONS FOR CATEGORY I, II AND III GENERATING ASSETS

1. RIGHT TO DISPATCH

The system controller may, in accordance with rule 5.1.4 and 6.3.4 of the main body of the ISO rules, provide a supply shortfall directive to a pool participant to start and operate a category I, category II or category III generating asset to provide supply shortfall energy if the expected forecasted load exceeds or is expected to exceed the sum of total declared energy in any settlement interval.

2. COMPENSATION FOR CATEGORY I AND II GENERATING ASSETS

2.1 Compensation

The ISO will pay the pool participant in respect of supply shortfall energy supplied, in accordance with the ISO rules and pursuant to a supply shortfall directive, from category I and category II generating assets an amount equal to the pool price, calculated under the current ISO rules as the mathematical average of the sixty system marginal prices.

2.2 No Additional Compensation

There will be no additional compensation or consideration given to the pool participant for start-ups or minimum on times for category I and category II generating assets directed to provide supply shortfall energy. Without limiting the generality of the foregoing, in no event will any such pool participant be entitled to or be compensated for indirect, incidental, consequential or special damages arising out of or relating to the pool participant complying with a supply shortfall directive.

3. COMPENSATION FOR CATEGORY III Generating Assets

Compensation

The ISO will pay the pool participant in respect of supply shortfall energy supplied, in accordance with the ISO rules and pursuant to a supply shortfall directive, from a category III generating asset an amount equal to the following:

a) all fixed and variable operating and maintenance costs, including transmission costs, of such generating asset; plus

b) all start-up costs of such generating assets, inclusive of costs for start fuel and additional labour; plus

c) all fuel costs associated with supply shortfall energy generated in response to a supply shortfall directive; plus...
Appendix 6, the Transmission Loss Factor Methodology and Assumptions document.
Appendix 7 is for reference purposes only and does not affect the interpretation of the rules. Please click here to view the Summary Table of Rule Changes.
Schedules
SCHEDULE OF ISO FEES

In accordance with the provisions of the Electric Utilities Act, and also in accordance with rule 2.2, the following ISO fees are set:

<table>
<thead>
<tr>
<th>Rule</th>
<th>Description</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rule 2.2.2.</td>
<td>Annual pool participation fee</td>
<td>$150/pool participant plus Goods and Services Tax</td>
</tr>
<tr>
<td>Rule 8.4.2</td>
<td>Trading Charge/MWh</td>
<td>$0.1360/MWh (effective January 1, 2007)</td>
</tr>
<tr>
<td>Rule 2.2.3</td>
<td>Registration Fee</td>
<td>no charge</td>
</tr>
<tr>
<td>Rule 8.4.2</td>
<td>Software Security Charge</td>
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SCHEDULE OF ADMINISTRATIVE PENALTIES

In accordance with the provisions of the Electric Utilities Act, the following administrative penalties are set:

Rule 8.4.3 Late Payment Penalty 2 days Interest Penalty on outstanding amount owing

Rule 8.4.3 Interest Penalty

- Toronto Dominion prime rate plus 6% on outstanding amount owing minus Bank Charges;
- or Toronto Dominion prime rate plus 12% on outstanding amount owing minus Bank Charges.

Rule 7 Appendix C 4.3.4.b) Financial penalties of up to $100,000 per day.

Rule 12 ISO Compliance Monitoring and Enforcement See matrix below:

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<th>Level of Non-Compliance</th>
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<td>Level 1 (see Note below)</td>
<td>Warning letter</td>
<td>Warning letter or Non-compliance letter</td>
<td>Warning letter, non-compliance letter or an administrative penalty of up to $2,000.00 per day</td>
<td>Warning letter, non-compliance letter or an administrative penalty of up to $10,000.00 per day</td>
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<td>Non-compliance letter or an administrative penalty of up to $25,000.00 per day</td>
<td>Non-compliance letter or an administrative penalty of up to $100,000.00 per day</td>
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<tr>
<td>Level 3 (see Note below)</td>
<td>Warning letter, non-compliance letter or an administrative penalty of up to $5,000.00 per day</td>
<td>Non-compliance letter or an administrative penalty of up to $25,000.00 per day</td>
<td>Non-compliance letter or an administrative penalty of up to $50,000.00 per day</td>
<td>Non-compliance letter or an administrative penalty of up to $100,000.00 per day</td>
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Note: In addition to the above, the ISO reserves the right to impose additional sanctions as outlined in rule 12.5.3.
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3.5.1 Daily Offers and Bids

Before noon every day, pool participants will submit bids or offers to the ISO for the next seven days. Prices for energy supplied or purchased are only binding for the next trading day.

A pool participant who wishes to submit an offer or bid for any time within the forecast scheduling period will submit such offer or bid to the ISO before noon of the day before such forecast scheduling period. Prices of these offers and bids are binding for only the next trading day.

A pool participant with a source asset will submit offers. Pool participants that may be receiving dispatches will also submit asset operating constraints, including a ramp rate reflecting the operating characteristics of the asset.

Pool participants will be allocated one asset per generator comprised of seven blocks. A pool participant with a generating asset 5 MW or greater will submit to the ISO for each settlement interval in the forecast scheduling period:

An offer within the seven blocks, and

The total declared energy.
Total declared energy may change only for an acceptable operational reason and at all times will equal or exceed the total energy of the seven block offer.

Importers will be allocated one asset per interconnection comprised of one block with a $0 offer price.

Total declared energy, notwithstanding the submission of a seven block offer, will be submitted to the ISO for each settlement interval in the declared supply shortfall energy category, reflecting the operating characteristics of the asset, even if the amount is zero.

Category I is for generating assets with supply shortfall energy that can be supplied in 20 minutes or less;

Category II is for generating assets with supply shortfall energy that can be supplied in 20 minutes to 60 minutes; and

Category III is for pre-defined generating assets with supply shortfall energy that can be supplied in more than 60 minutes.

Only the generating assets specified in Appendix 6 are eligible for category III. Category III units will enter their total declared energy into category I or II, as appropriate, to reflect the generating asset being on line.

Category III generating assets will submit their pre-determined start up cost on a monthly basis, including value for a limited start if starts are restricted by a power purchase agreement, and the time required to reach minimum stable generation.

Generating assets not specified in Appendix 6 are designated Category I or II and will enter their total declared energy into category I or II, as appropriate, to reflect changing operating conditions.

Generating assets may not change their category for the period in which they are under a supply shortfall directive.

A pool participant with a sink asset will submit bids. Pool participants purchasing for consumption within the AIES will be allocated one asset comprised of seven blocks per settlement zone. Exporters will be allocated one asset per interconnection comprised of one block with a $999.99 bid price.

Pool participants receiving energy market dispatches will also indicate whether each block is a flexible block or inflexible block.

An asset's day-ahead submission MW capacity for a settlement interval will be set at the MW value of the highest operating block bid/offered for the settlement interval in that asset's day-ahead submission.

As an alternative to daily offers and bids, a pool participant may submit a standing offer or standing bid including total declared energy, in accordance with rule 3.7.
3.5.2 Voluntary Restatement of Availability or Operating Constraints for Offers

Pool participants may submit revised daily offers to the ISO to reflect changes to the total MW volume or capacity.

In accordance with software and procedures and subject to rule 3.5.1, a pool participant may submit to the ISO for the current settlement interval and all subsequent settlement intervals within the forecast scheduling period:

a) a locking restatement once per asset per trading day. The revised offer will then be regarded as the day-ahead submission for purposes of energy restatements as defined in rule 3.5.2 b).

A locking restatement may be submitted at any time following the day-ahead offer for any reason, including but not limited to a change in an operational and/or market condition. However, a locking restatement submitted for effect within the current settlement interval or submitted within 30 minutes prior to the next settlement interval for effect in such period must be for an acceptable operational reason.

A pool participant must record and make available to the ISO, if requested, the basis on which it determined that there was an acceptable operational reason requiring such use.

b) an energy restatement at any time. The energy restatement is a revised daily offer restating the total MW capacity at which the asset will be available and is subject to the following conditions:

If this restated MW capacity is greater than the day-ahead submission MW capacity, then the increase will be added to the day-ahead submission’s highest-priced operating block;

2) With the exception of the day-ahead submission’s highest-priced operating block submitted for the asset, block sizes may not be increased beyond the amount in the day-ahead submission;

3) If this restated MW capacity is less than the day-ahead submission MW capacity, then the MW reduction will be applied to the asset's operating blocks in the day-ahead submission in order of descending price;

4) Subsequent energy restatements which:
   i) increase the MW capacity at which the asset will be available, will be re-applied to the day-ahead submission blocks in order of ascending price;
   ii) decrease the MW capacity will continue to be applied to the day-ahead submission blocks in order of descending price;
c) a revision to operating constraints, at any time.

3.5.3 Voluntary Restatement of Availability or Operating Constraints for Bids

Pool participants may submit revised daily bids to the ISO to reflect changes in the total MW volume or capacity.

In accordance with software and procedures, a pool participant may submit to the ISO for the current settlement interval and all subsequent settlement intervals within the forecast scheduling period:

a locking restatement once per asset per trading day. The revised bid will then be regarded as the day-ahead submission for purposes of energy restatements as defined in rule 3.5.3 b).

an energy restatement at any time. The energy restatement is a revised daily bid restating the total MW capacity at which the asset will be available and is subject to the following conditions:

If this restated MW capacity is greater than the day-ahead submission MW capacity, then the increase will be added to the day-ahead submission’s lowest priced operating block;

With the exception of the day-ahead submission’s lowest priced operating block submitted for the asset, block sizes may not be increased beyond the amount in the day-ahead submission;

If this restated MW capacity is less than the day-ahead submission MW capacity, then the MW reduction will be applied to the asset's operating blocks in the day-ahead submission in order of ascending price;

Subsequent energy restatements which:

increase the MW capacity at which the asset will be available, will be re-applied to the day-ahead submission blocks in order of descending price;

decrease the MW capacity will continue to be applied to the day-ahead submission blocks in order of ascending price;

a revision to operating constraints, at any time.

3.5.4 Compulsory Restatement of Available MW or Operating Constraints

Pool participants are required to restate their bids or offers or total declared energy under certain circumstances.

Notwithstanding a voluntary restatement pursuant to rules 3.5.2 and 3.5.3, or the ability to submit a standing offer or standing bid as per rule 3.7, if:
a) Except for reasonable operational variations, the asset’s output or load is expected to vary from the energy market dispatch MW volume; or

b) The operating constraints as detailed in software and procedures are inaccurate; or

c) For the current trading day or next trading day, the opportunity to submit a bid or offer has closed and the resulting bid or offer or total declared energy is inaccurate; or

d) The total declared energy category has changed for any settlement interval in the day-ahead submission, or

e) The system controller requests a pool participant to restate MW volumes to match the actual interchange schedule for interchange transactions; or

f) The total declared energy has changed due to acceptable operational reason.

then the pool participant will, with, in a reasonable time, submit to the ISO a revised offer or bid restating the MW or operating constraint at which the asset will be available for the applicable hours in the trading day. For the next trading day, the pool participant will ensure that operating block offers are restated to zero by 13:00 for assets that are not expected to be available.

Where the total declared energy has changed due to an acceptable operational reason, the reason will be specified in the reason for restatement section of the electronic submission facilities.

3.5.5 Restatement Implementation

The ISO will implement revisions to offers and bids whether voluntary or compulsory, in a manner outlined in 3.5.2, 3.5.3 and 3.5.4.

5.1 Asset Schedule For The Trading day

5.1.1 Objective

*The ISO will prepare an asset schedule describing the assets planned to be required to meet the forecast AIES demand during the trading day.*

An asset schedule will be prepared by the ISO for each settlement interval for a trading day on the day preceding that trading day. The scheduling process and resulting asset schedule is intended to:

a) Identify which assets are planned to meet the forecast AIES demand and AIES transmission constraints;
b) Minimize the costs required to meet the forecast AIES demand during the trading day; to optimize on a day-ahead basis the overall costs associated with meeting the AIES's total electric energy needs together with the requirement for operating reserves and other ancillary services;

c) Identify:
   i) which assets are to be started or shut-down; and
   ii) the expected times of start-up and shut-down of each asset; and
   iii) the expected MW level for each asset including imports and exports.

5.1.2 Preparation of the Asset Schedule

The ISO will use reasonable best efforts to prepare the next trading day’s asset schedule no later than 16:00.

The ISO will prepare an asset schedule for each trading day as soon as practicable and will use reasonable best efforts to provide it no later than 16:00 of the preceding day, which:

a) Is prepared in accordance with these rules using the software and procedures;

b) Is to take account of:
   i) AIES transmission constraint information;
   ii) offers and bids submitted in respect of assets under rule 3.0 and the associated energy market merit order;
   iii) the need to provide ancillary services in accordance with the standards set by the ISO;
   iv) the availability of such ancillary services for the trading day;
   v) forecast AIES demand for the trading day;

   c) Must identify which assets are to be started and shut-down, the expected running times for each asset and the expected MW level for each asset including exports and imports for each settlement interval of the trading day; and

   d) Is to be issued in the form and manner set out in rule 10.0.

5.1.3 Asset Schedule

The ISO will prepare the asset schedule using certain guidelines.
The ISO shall prepare an asset schedule in accordance with the rules using the scheduling program approved by the ISO, and taking into consideration the offers, bids, transmission constraint information, and the ancillary services standards which are established by the ISO.

A part of the asset schedule showing the schedule for each separate asset will be available to the responsible pool participant.

The asset schedule will include, for each settlement interval of the trading day the forecast energy market dispatch level of the asset.

5.1.4 Forecast Supply Shortfall

The system controller:

Will review the offers, bids and forecasted load for the next trading day as soon as practicable and will use reasonable best efforts to review it no later than 18:00 of the preceding day.

Will assess the forecasted load against the sum of total declared energy throughout the preceding day and the trading day to account for changes in the AIES supply – demand balance.

c) May direct category III generating assets to deliver supply shortfall energy if the expected forecasted load exceeds the sum of total declared energy for category I and II in any settlement interval in accordance with the ISO supply shortfall operating policies and procedures.

5.2 Six-Day Forecast Schedule

5.2.1 Objectives

The ISO will prepare a forecast schedule describing the planned energy market dispatch of assets during the 6 remaining days.

In addition to the asset schedule for each trading day, the ISO must prepare a forecast schedule for the 6 remaining days of the forecast scheduling period (that is day 2 through day 7 of the forecast scheduling period). Based on the asset schedule for the trading day, the forecast process and forecast schedule is intended to minimize the costs required to meet the forecast AIES demand for the 6 remaining days of the forecast scheduling period and to optimize on a forecast basis the overall costs associated with meeting the AIES's total electric energy needs together with the requirement for operating reserves and other ancillary services.

5.2.2 Preparation of the Forecast Schedule

In preparing the forecast schedule by 16:00, the ISO will take into account different considerations, including forecast AIES demand, transmission constraints, offers, bids and ancillary services.
Before 16:00 each day, the ISO will prepare a forecast schedule for each of the remaining 6 days within the forecast scheduling period which:

Is prepared in accordance with these rules using the approved software and procedures;

b) Takes account of:
   i) forecast AIES demand for the 6 remaining days of the forecast scheduling period;
   ii) the forecast AIES transmission constraint information;
   iii) offers and bids submitted in respect of assets under rule 3.0 for the 6 remaining days of the forecast scheduling period and the resulting energy market merit order;
   iv) the results of the asset schedule for the trading day;
   v) the need to provide ancillary services in accordance with the standards set by the ISO;
   vi) the availability of such ancillary services for the 6 remaining days of the forecast scheduling period.

c) Identifies which assets are to be started and shut-down, the expected running times for each asset and the expected MW level for each asset including exports and imports for each settlement interval of the 6 remaining days of the forecast scheduling period; and

d) Is to be issued in the form and manner set out in rule 10.0.

5.3 Forecast Pool Price

5.3.1 Determination of Forecast Pool Price

The forecast pool price is determined by the highest forecast marginal price for all assets, or it is $1000 when non-price-responsive demand is forecasted not to be met.

The forecast pool price for a settlement interval in the forecast scheduling period is:

a) The highest forecast marginal price of all assets forecast to be required to meet the forecast AIES demand for the settlement interval; or

b) $1000 when, through offers and bids submitted, non-price responsive AIES demand is forecast not to be met and contingency reserves are zero.

5.3.2 Determination of Forecast Marginal Price
*If certain conditions have been met, an asset's forecast marginal price is the price specified in the highest block forecasted to receive an energy market dispatch.*

The forecast marginal price for a pool participant's asset for each settlement interval in the forecast scheduling period will be set at the price specified for the price block in the pool participant's offer or bid which corresponds to the forecast energy market dispatch level of the asset for the settlement interval, pursuant to the following conditions:

a) The asset is not used to calculate the forecast pool price if the price block for that asset is not forecast to receive an energy market dispatch in the settlement interval based on the asset schedule;

b) The asset is not used to calculate the forecast pool price if the asset is used for an interchange transaction.

5.4 Equal Price Offers or Bids

*The ISO will follow certain guidelines to manage equal price offers or bids for assets during a settlement interval.*

If a price of an offer or bid submitted in respect of an asset for a settlement interval is identical to the corresponding price of another offer or bid in respect of another asset for the same settlement interval, the ISO will:

a) Determine the asset schedule by considering applicable constraint information for each of the assets and optimizing overall costs for the trading day, and

b) If equal offers or bids remain; then as necessary proportioning participation amongst the assets within the settlement interval to the extent that identified offer or bid constraints allow and in a manner determined appropriate by the ISO.

6.3.4 Supply Shortfall Directive

If during the trading day the system controller has exhausted the energy market merit order, the system controller will use ISO supply shortfall operating policies and procedures to issue supply shortfall directives as required.

Category I and II supply shortfall energy will be delivered within 20 minutes and 60 minutes, respectively, of receiving a supply shortfall directive. Directives for Category III supply shortfall energy will be issued taking into consideration the required generating asset start up time.
Category III supply may participate in the energy market and ancillary service market after being issued a **supply shortfall directive**, only if they provide notice to the ISO that is equivalent to their indicated start-up time. During the notice period, the **generating asset** will comply with the **supply shortfall directive**. Cost recovery from the ISO is forfeit if the Category III supplier decides to participate in the energy market or ancillary service market under these circumstances. The **generating asset** will run at minimum stable generation, at their own cost, from the time they are no longer required for supply shortfall reasons until the time the notice period expires and they are allowed to participate in the markets.

Energy that is directed on will be directed off in the most efficient manner with the intent of minimizing market impact. This **directive** will be complied with within 10 minutes or at the **generating asset’s** maximum ramp rate, whichever is greater.

6.3.6 Declaration of Pool Price

6.3.6.1 Pool Price Determination

*The pool price will be determined according to energy market dispatches, price setting eligibility, and/or the current operational state of the AIES.*

The **pool price** will be calculated based on the **energy market dispatches** recorded on the **dispatch log** by the **system controller**.

The **pool price** for any **settlement interval** is the time weighted average of the price of the highest priced **operating block** for **asset(s)** receiving an **energy market dispatch** during the **settlement interval** to meet AIES demand.

The **pool price** will be calculated as the average of the 60 one minute **system marginal price** values determined where for each minute of the **settlement interval**, the **system marginal price** at each minute is;

a) the highest eligible **asset marginal price** of all **assets** in order to meet AIES demand; or

b) $1000/MWh, where to maintain **system security** the **system controller** had directed an involuntary curtailment of non-price responsive load in accordance with rule 6.8; or

c) as prescribed in rule 6.9 in the event of an **energy market suspension**.

6.3.6.2 Determination of Asset Marginal Price

*Under certain conditions, the asset marginal price of a pool participant’s asset will be used to calculate pool price.*
The asset marginal price for a pool participant's asset for each minute of a settlement interval will be set at the price specified for the price block in the pool participant's offer or bid which corresponds to the energy market dispatch of the asset at the time the energy market dispatch was issued and accepted by the pool participant, pursuant to the following conditions:

The asset is not used to calculate the pool price if the price block for that asset has not received an energy market dispatch in the settlement interval;

The asset is not used to calculate the pool price if it is used for an interchange transaction.

6.6 Pool Participant Non-Compliance on Energy Market Dispatch and Ancillary Service Directives

A pool participant may only supply energy if it has received either an energy market dispatch or ancillary service directive. A pool participant who has not received an energy market dispatch or ancillary service directive and supplies energy may be subject to sanction.

Pool participants may only deliver energy to the AIES when the system controller has issued an energy market dispatch or ancillary service directive to do so.

Except in situations where it is prudent to protect its facilities, its personnel, the public or the environment, a pool participant must advise the system controller of the pool participant's intentions to desynchronize or decrease the output of a generator and must receive the authorization of the system controller to do so. The system controller will not unreasonably withhold authorization.

A pool participant must advise the system controller of the pool participant's intention to synchronize or increase the output of a generator and must receive the authorization of the system controller to do so. The system controller will not unreasonably withhold authorization.

In any circumstance where an energy market dispatch can or will not be followed, the pool participant shall advise the system controller as soon as practical that the energy market dispatch will not be complied with and the pool participant will as soon as practicable submit a new offer or bid restating the status of the asset to reflect the non-acceptance of the energy market dispatch.

In accordance with rule 3.5.4, it is expected that the generating asset will comply with the MW volume dispatched. The pool participant is in non-compliance when the amount delivered varies by greater than $\pm 5$ MW from the highest energy market dispatch MW amount and/or the ancillary service directive MW amount. In the case of a generating asset that is supplying regulating reserve, the pool participant is non-compliant when the amount delivered is less than the energy market dispatch MW amount minus 5 MW or greater than the energy market dispatch MW amount plus the regulation range plus 5 MW. Exceptions to dispatch non-compliance will be considered
when it is not physically reasonable for the asset to attain compliance. Non-compliance does not apply during:

any period when the asset is on line but below minimum stable operation,

the 10 minute period before a generating asset begins to provide an ancillary service
and the 10 minute period after a generating asset finishes providing an ancillary service.

A pool participant may be considered non-compliant with an energy market dispatch even though they are responding to an ancillary service dispatch. The pool participant is responsible for coordinating their energy and ancillary service submissions.

Any non-compliance with an energy market dispatch or ancillary service directive is subject to review and may be subject to sanction by the ISO.

As an exception, energy delivered to the AIES while a pool participant is testing and/or commissioning, a generating unit will be considered compliant, provided however, that the pool participant has complied with the ISO Operating Policies and Procedures and has received approval from the system controller.

### 8.2 Sink Asset Calculations

_A formula is used to calculate how much pool participants must pay for energy consumed._

#### 8.2.1 Settlement at Pool Price

A pool participant must forward to the ISO in respect of electric energy received by it in a settlement interval the amount calculated by applying the following formula:

Energy charge in $ = ((energy consumption in MWh) minus (net settlement instruction MWh volumes in MWh)) multiplied by (pool price in $/MWh)

_Where:_

Energy consumption in MWh is the metered MWh value for load assets or the interchange MWh schedule across the interconnection for exporting assets.

If the energy consumption in MWh is less than the net settlement instruction MWh volume, then the pool participant is deemed to have sold the MWh volume difference to the power pool. The ISO will pay the pool participant in respect of electric energy supplied in a settlement interval an amount equal to the energy charge.

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<td>Actual Energy Production MW/Asset/hour</td>
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<td>Actual Energy Consumption MW/hour demand</td>
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APPENDIX 6 - TERMS AND CONDITIONS FOR CATEGORY I, II AND III GENERATING ASSETS

1. **RIGHT TO DISPATCH**

   The **system controller** may, in accordance with rule 5.1.4 and 6.3.4 of the main body of the **ISO rules**, provide a **supply shortfall directive** to a **pool participant** to start and operate a category I, category II or category III **generating asset** to provide **supply shortfall energy** if the expected forecasted **load** exceeds or is expected to exceed the sum of **total declared energy** in any **settlement interval**.

2. **COMPENSATION FOR CATEGORY I AND II GENERATING ASSETS**

   2.1 **Compensation**

   The **ISO** will pay the **pool participant** in respect of **supply shortfall energy** supplied, in accordance with the **ISO rules** and pursuant to a **supply shortfall directive**, from category I and category II **generating assets** an amount equal to the **pool price**, calculated under the current **ISO rules** as the mathematical average of the sixty **system marginal prices**.

   2.2 **No Additional Compensation**

   There will be no additional compensation or consideration given to the **pool participant** for start-ups or minimum on times for category I and category II **generating assets** directed to provide **supply shortfall energy**. Without limiting the generality of the foregoing, in no event will any such **pool participant** be entitled to or be compensated for indirect, incidental, consequential or special damages arising out of or relating to the **pool participant** complying with a **supply shortfall directive**.

3. **COMPENSATION FOR CATEGORY III GENERATING ASSETS**

   **Compensation**

   The **ISO** will pay the **pool participant** in respect of **supply shortfall energy** supplied, in accordance with the **ISO rules** and pursuant to a **supply shortfall directive**, from a category III **generating asset** an amount equal to the following:

   a) all fixed and variable operating and maintenance costs, including transmission costs, of such **generating asset**; plus

   b) all start up costs of such **generating assets**, inclusive of costs for start fuel and additional labour; plus

   c) all fuel costs associated with **supply shortfall energy** generated in response to a **supply shortfall directive**; plus

   d) where the **generating asset** is not governed by a **power purchase arrangement**, a proportion of the daily fixed costs associated with the investment by such **pool participant** in the **generating asset** for each **day** or portion of a **day** that the **ISO**
directs the generating asset to run pursuant to the issuance of a supply shortfall directive; plus

e) where the generating asset is governed by a power purchase arrangement, a proportion of the Provisional Capacity Payment associated with such generating asset for each day or portion of a day that the ISO directs the generating asset to run pursuant to the issuance of a supply shortfall directive, provided that where such power purchase arrangement has annual start limitations on such generating asset, the proportion of Provisional Capacity Payment the ISO is responsible for shall be calculated as the Provisional Capacity Payment times the number of days or portions of days the generating asset provided the supply shortfall energy divided by the total number of days in the month,

in each instance and notwithstanding any term in this Appendix to the contrary, calculated for (i) the period of time such generating asset was dispatched (being the time the generating asset was dispatched on to the time it was dispatched off) and provided energy in accordance with a shortfall supply directive and otherwise in accordance with the ISO rules, or (ii) such generating asset's Minimum Up Time, whichever is greater.

3.2 No Additional Compensation

In no event will any such pool participant be entitled to or be compensated for indirect, incidental, consequential or special damages arising out of or relating to the pool participant complying with a supply shortfall directive.

3.3 Financial Settlement

Where a category III generating asset has provided supply shortfall energy in accordance with the terms of these ISO rules, then:

a) Within 5 business days after the end of the settlement period, such pool participant will issue to the ISO a statement showing:

i) the amount of the supply shortfall energy supplied in that settlement period;

ii) amounts owing or owed as calculated in accordance with this Appendix; and

iii) such other information as the ISO considers appropriate.

The pool participant will provide to the ISO the supporting data used in determining the amounts of any statement, such information to include (if applicable) the costs, charges and other items specified under the heading Compensation for Category III Generating Assets in this Appendix.

The ISO will net and set off against the amount set forth in such statement (in this Appendix, the “statement amount”) all revenue received or receivable by such pool participant from the power pool associated with the supply shortfall energy generated by the generating asset in response to a supply shortfall directive (in this Appendix, the “revenue amount”). Whether or not the statement amount exceeds the revenue amount, subject to rule 3.3 e) below, the ISO will pay the pool participant the statement amount and no additional
amount. In the event the revenue amount exceeds the statement amount, the ISO will pay such excess amount to the Balancing Pool, and the pool participant, notwithstanding any term in the ISO rules to the contrary, waives any entitlement to such excess amount.

d) Settlement in respect of any such statement shall occur on or before the 20th business day following the end of the relevant settlement period. Full payment must be made whether or not any amount is under dispute.

e) Any disputes in respect of any such statement shall be resolved in accordance with the provisions of rules 8.4.4 b), c), d) and e) of the main body of the ISO rules applied mutatis mutandis on the basis that the ISO is the disputing party in respect of a statement provided by a pool participant pursuant to rule 3.3 a) above.

4. RECOVERY OF AESO COSTS

Costs incurred by the AESO in respect of the supply of supply shortfall energy will be recovered through an uplift to load. See rule 2.2.10 of the main body of the ISO rules.

5. IDENTIFICATION OF CATEGORY III GENERATING ASSETS

In accordance with rule 3.5.1 of the main body of the ISO rules: (a) the ISO declares the following generating assets to be category III generating assets: Rossdale 8, Rossdale 9, Rossdale 10, Cloverbar 1, Cloverbar 2, Cloverbar 3 and Cloverbar 4; and (b) the relevant pool participant shall ensure that pre-determined start-up costs and time to reach minimum stable generation for each category III generating asset is submitted to the ISO for evaluation and processing.

6. DEFINITIONS

The following terms referred to in or required for the fulfillment of the foregoing provisions shall have the same meanings as given to them in the relevant power purchase arrangement: Minimum Up Time, Minimum Down Time, Ramp Rates, Start Times, Minimum Stable Generation and Provisional Capacity Payment.