



# Part Two

# Market Participation

# Rules



## TABLE OF CONTENTS

### PART TWO – MARKET PARTICIPATION RULES

#### 1. POOL PARTICIPANTS

- 1.1 Requirements of Becoming / Application To Become A Pool Participant - REMOVED
- 1.2 Pool Participant Amendment Requirements -REMOVED
- 1.3 Pool Participant List and ISO Asset List - Removed
- 1.4 Failure of Pool Participants to Meet Participation Requirements - Removed
- 1.5 Termination of Participation by a Pool Participant - Removed
- 1.6 Effect of Termination - Removed
- 1.7 Reinstatement of Participation - Removed
- 1.8 Appointment of an Agent
- 1.9 Renewal Provisions - Removed

#### 2. PRUDENTIAL REQUIREMENTS AND ISO FEES - REMOVED

Effective as of July 1, 2011

#### 3. OFFERS, BIDS, ANCILLARY SERVICES AND ASSET DECLARATIONS

- 3.1 Purpose of Rule
- 3.2 Who Submits an Offer or Bid
- 3.3 How to Submit an Offer, Bid, Operating Constraint or Ancillary Service Declaration
- 3.4 Submission Protocols
- 3.5 Offers and Bids
- 3.6 Ancillary Service Declarations
- 3.7 Standing Offers and Bids
- 3.8 Registration of Aggregate Assets
- 3.9 Validity or Invalidity of Offers and Bids
- 3.10 Reference Price
- 3.11 Software Procedures

#### 4. NET SETTLEMENT INSTRUCTIONS – REMOVED

Effective July 1, 2011

- 5. RELIABILITY ASSESSMENT AND SCHEDULE DGENERATOR OUTAGE CANCELLATION**
  - Applicability
  - 5.1 Reliability and Adequacy Assessments
  - 5.2 Generating Unit Scheduled Generator Outage Reporting
  - 5.3 Authority to Issue a Scheduled Generator Outage Cancellation Directive
  - 5.4 Payment Eligibility for Incremental Generation Costs, and Claim Limitations
  - 5.5 Payment and Cost Recovery
  - 5.6 Forecast Dispatch Price
  
- 6. DISPATCH AND DIRECTIVES**
  - 6.1 Asset Dispatching
  - 6.2 Form of Dispatch and Directives
  - 6.3 Energy Market Dispatch and Directives
  - 6.4 Ancillary Service Dispatch
  - 6.5 Ancillary Service Directive
  - 6.6 Pool Participant Non-Compliance with Energy Market Dispatch and Directives
  - 6.7 System Security
  - 6.8 Involuntary Load Curtailment
  - 6.9 Energy Market Suspension
  
- 7. THIS SECTION IS INTENTIONALLY LEFT BLANK**
  
- 8. POWER POOL FINANCIAL SETTLEMENT – REMOVED**

Effective July 1, 2011
  
- 9. TRANSMISSION**
  - 9.1 Transmission Facility Projects
  - 9.2 Transmission Loss Factors
  - 9.3 Abbreviated Needs Identification Approval
  - 9.4 Real Time Transmission Constraint Management
  - 9.5 Annual Performance Criteria for Refund of System Contribution
  - 9.6 Merchant Transmission Facility Open Access
  
- 10. INFORMATION EXCHANGE**
  - 10.1 Information Disclosure Principles
  - 10.2 Forecast Scheduling Period Data, Six Day Forecast
  - 10.3 Day Ahead, Trading Day Forecast
  - 10.4 Next Two Settlement Intervals Forecast

- 10.5 Settlement Interval Following
- 10.6 Trading Day History
- 10.7 ISO Records and Reports
- 10.8 Ancillary Services Information Provision
- 10.9 Confidentiality

**Sections 10.1 to 10.9 – REMOVED**

Effective as of April 30, 2010

Refer to New ISO Rules “Division – 103 Administration, Section 103.1 Confidentiality” under the New ISO Rules Framework.

- 10.10 Load Outage Reporting

**11. DISPUTE RESOLUTION – REMOVED**

Effective as of January 5, 2010

Refer to New ISO Rules “Division – 103 Administration, Section 103.2 Dispute Resolution” under the New ISO Rules Framework

**12. ISO COMPLIANCE MONITORING**

- 12.1 Introduction
- 12.2 Compliance Monitoring
- 12.3 Issue Assessment
- 12.4 Compliance Monitoring Audit
- 12.5 Referrals, Notifications and Reports regarding Compliance Matters
- 12.6 Administration

**13. LONG TERM ADEQUACY**

- 13.1 Purpose of Rule
- 13.2 Long Term Adequacy Metrics
- 13.3 Long Term Adequacy Threshold Determination and Use
- 13.4 Long Term Adequacy Threshold Actions

## 1. POOL PARTICIPANTS

### 1.8 Appointment of an Agent

#### 1. Applicability

- (1) To the **ISO**.
- (2) To **pool participants**.

#### 2. Requirements

- (1) A **pool participant** may, with the approval of the **ISO** in accordance with this **ISO rule 1.8**, appoint an **agent** to act on behalf of that **pool participant**.
- (2) A **pool participant** wishing to appoint an **agent** pursuant to subsection (1) must complete and submit to the **ISO** an *Agent Appointment Request Form* as posted by the **ISO** on its website.
- (3) The completed *Agent Appointment Request Form* must include a representation and warranty by the **pool participant** that all information provided is true and correct to the best of its knowledge, and that the **pool participant** will be bound by and fully responsible for all acts or omissions of the **agent**.
- (4) If the **ISO** is satisfied that the **agent** appointment is duly authorized and that the authority of the **agent** to act on behalf of and bind the **pool participant** is clearly approved of by the **pool participant**, then subject to the other provisions of this **ISO rule 1.8**, the **ISO** must approve the appointment of the **agent**.
- (5) The **ISO** will not approve the appointment of an **agent** if the subject matter of the agency extends, in whole or in part, to the preferential sharing of records in violation of or noncompliance with the provisions of Section 3 (1) of the *Fair, Efficient and Open Competition Regulation*, unless there is an exception to the prohibition against the sharing of records, as specified in Section 3(2) of that Regulation.
- (6) The **ISO** must post on its website a list of all **agents** appointed under this **ISO rule 1.8**.

#### 3. Appendices

None.

**2. PRUDENTIAL REQUIREMENTS AND ISO FEES – REMOVED**  
Effective July 1, 2011

### 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.*

- a) Unless otherwise agreed by the **ISO**, **pool participants** must submit information according to the **ISO rules** by the following means:
  - i) by **electronic submission facilities**; or
  - ii) 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
  - iii) 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.
- b) In the event the **pool participant** submits information by facsimile or telephone, the following conditions apply:

- i) The **system controller** will not enter the information into **ETS** on behalf of the **pool participant**;
- ii) The **pool participant** sending the information is responsible to ensure and confirm the **ISO** received the information;
- iii) The **pool participant** must ensure that all current and future **offers** or **bids** that are submitted by facsimile or telephone are submitted again through **electronic submission facilities** as soon as it is possible to do so;
- iv) Information received by facsimile or telephone will not be used to determine the **energy market merit order**, but will be used to satisfy the requirements that **market participants** advise the **system controller** as soon as practical that a **dispatch** or **directive** will not be complied with and to provide operational information to the **system controller**.

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

### 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) Subject to **rules** 3.5.2 e) and f), 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**.
- e) The **ISO** may extend the time for submitting an **offer** or **bid** pursuant to **rule 3.5.2 a)** if **pool participants** are unable to submit **offers** or **bids** before 12:00 hours due to the **ETS** being out of service.
- f) The duration of the extension beyond 12:00 hours may not exceed one hour after the **ETS** is back in service.

### 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** unless the **pool participant** has a **LTA threshold actions** contract in accordance with **rule 13**.
- 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 **inflexible block**.

#### 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 **\$/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) an energy restatement under a) cannot reasonably accommodate the change to the **bid**; and
  - iii) 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 **\$/MWh** or the quantity in **MW** or both, for each **block** allocated to a **pool participant's sink asset**

#### 3.5.4.4 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

A **pool participant's DDS offer** for each **source asset** must consist of price in \$/MW, in accordance with **rule 3.9 c)** and quantity in **MW** for the **DDS block** allocated to the **source asset**.

If a **DDS offer** for a **settlement interval** is determined by the **ISO**, as per **rule 6.3.6.1**, to be ineligible to provide **DDS** for such **settlement interval**, no **DDS** payment shall be payable by the **ISO** to the **pool participant** for such **settlement interval**.

#### 3.5.5.1 Submitting Dispatch Down Service Offers

- a) A **pool participant** with a **source asset** may submit a **DDS offer**. Such **offer** quantity must not be less than 10 **MW**.
- b) The quantity (**MW**) of each such **DDS offer** must not total more than the **available capability** less the **minimum stable generation** of the **source asset**.
- c) The **DDS block** of a **DDS offer** must be a **flexible block**.

#### 3.5.5.2 Mandatory Dispatch Down Service Energy Restatements

- a) A **DDS** energy restatement is permitted within two hours before the start of any **settlement interval** and only for an **acceptable operational reason**.
- b) A **pool participant** who has submitted a **DDS offer** must submit a **DDS** energy restatement restating as soon as reasonably practicable, if there is a change in the **pool participant's** ability to comply with a **current DDS submission** or **DDS dispatch**.
- c) 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**.

#### 3.5.5.3 Voluntary Dispatch Down Service Price Restatements

- a) A **DDS** price restatement is only permitted prior to two hours before the start of any **settlement interval**.
- b) A **DDS** price restatement is a revised **DDS offer** of an **asset** which restates the price in \$/MWh or the quantity in **MW** or both, for the **DDS block** allocated to a **pool participant's** **source asset**.

## 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 and restatements sufficient to meet audit and verification requirements of the **ISO**.

### 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 **MWh**, must be greater than or equal to \$0/**MWh** and must be less than \$1000/**MWh**.
- 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:

**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](http://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](http://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.

### 3.11 Software Procedures

The **ISO** must make procedures available and give reasonable notice regarding any new, or modifications to, software used to support **bid, offer, ancillary services declaration, operating constraint** or **net settlement instruction**.

**4. NET SETTLEMENT INSTRUCTIONS – REMOVED**  
Effective July 1, 2011

## 5. RELIABILITY ASSESSMENT AND SCHEDULED GENERATOR OUTAGE CANCELLATION

### 1. Applicability

Section 5 applies to:

- (1) the **ISO**;
- (2) a **pool participant** registered under Section 1 of the **ISO rules** to exchange or transact with respect to one or more **generating units**;
- (3) an **owner** of a **generating unit**; and
- (4) **market participants**.

### 2. Requirements

#### 5.1 Reliability and Adequacy Assessments

- (1) The **ISO** will, on an as required basis, apply all **reliability standards** and operating policies and procedures criteria for the purpose of assessing **reliability**.
- (2) For the purpose of assessing **adequacy** the **ISO** will:
  - (a) complete a supply and demand forecast using the peak demand hour for every **day** for the next successive two (2) year period, incorporating or addressing the following:
    - (i) the sum of the **maximum capability** from all **generating units** in Alberta with a **maximum capability** equal to or greater than 5 **MW**, plus
    - (ii) an estimate of the output from wind **generating units**, plus
    - (iii) import **available transfer capability** on the British Columbia and Saskatchewan **interconnections** with **import remedial action scheme**, or any similar scheme, minus
    - (iv) declared **generating unit** deratings, minus
    - (v) any capacity of **generating units** which are affected by **transmission constraints**, minus
    - (vi) anticipated **generating unit** derates, minus
    - (vii) the daily forecast Alberta internal **load** demand, minus
    - (viii) **operating reserves** requirements, plus
    - (ix) price responsive **load**, plus
    - (x) aggregate **outage** records for **load**, plus
    - (xi) **load** for **demand opportunity service**.
  - (b) complete a real time **adequacy** assessment for each **settlement interval** for the **trading day** and for the six (6) remaining **days** of the **forecast**

**scheduling period** on the **day** preceding that **trading day**, and which assessment will incorporate or address the following:

- (i) the sum of the **available capability** of all **generating units** in Alberta with a **maximum capability** equal to or greater than five (5) **MW**, and with a start up time either:
  - (A) less than or equal to one (1) hour, or
  - (B) at or before the period being assessed, plus
- (ii) an estimate of the output from all wind **generating units**, plus
- (iii) an estimate of the amount of price responsive **load** that will reduce **demand**; plus
- (iv) an estimate of **load** for **demand opportunity service** that will be curtailed; plus
- (v) an estimate of the amount of on site generation that supplies behind the fence **load** and submits **available capacity** as net-to-grid value; minus
- (vi) an estimate of the amount of anticipated **generating unit** derates, plus
- (vii) import to forecast **available transfer capability** on the British Columbia and Saskatchewan **interconnections**, plus
- (viii) reducing exports on the Alberta –British Columbia and Alberta-Saskatchewan **interconnections** to zero (0) **MW**, plus
- (ix) all **supplemental reserves** and excess **spinning reserves** delivered, plus
- (x) **generating unit** or import **available transfer capacity** that can be obtained by canceling **transmission system** maintenance, minus
- (xi) unavailable energy from **generating units** due to **transmission constraints**.

## 5.2 Generating Unit Scheduled Generator Outage Reporting

For any **generating unit** with:

- (a) installed capacities of five (5) **MW** or higher; or
- (b) derate changes of plus or minus five (5) **MW** or greater;

the **owner** of the **generating unit**, or the designated **pool participant** if different from the **owner**, must comply with the **scheduled generator outage** reporting requirements for the **generating unit** as set forth in the **ISO rules** below.

### 5.2.1 Timely Information From Owner to Pool Participant

The **owner** of a **generating unit** must provide to a designated **pool participant** such timely and complete information so as to enable the **pool participant** to comply with its obligations set out under this section 5.2.

### 5.2.2 Specific Scheduled Generator Outage and Forced Outage Reporting Requirements

- (1) Subject to subsection (2), each designated **pool participant** must use the outage scheduling entry in the **Energy Trading System** to provide to the **ISO** the dates, times, durations, and impact to **MW** capability for any **scheduled generator outage** and the specific nature of the **scheduled generator outage** work to be done as well as designate the outage as “Derate-Planned” or “Outage-Planned”
- (2) The designated **pool participant** must comply with the following specific requirements when submitting either **forced outage** or **scheduled generator outage** information to the **ISO**:
  - (a) by the first (1<sup>st</sup>) **day** of every month subsequent to the date of **commissioning**, submit **scheduled generator outages** that are planned to occur at any time within the next twenty four (24) months after that **day**, with any subsequent revisions to the plans submitted to the **ISO** as soon as reasonably practical after the decision is made by the **owner** of the **generating unit** to change the plans, but in any event no later than three (3) months prior to the first **day** the **scheduled generator outage** is planned to commence;
  - (b) for **scheduled generator outages** that are planned to be required within the next three (3) months after the first (1<sup>st</sup>) day of a month, submit the plan as soon as reasonably practical after that planning decision is made by the **owner** of the **generating unit** if the plan is different from the one referred to in Subsection (2) (a) above, which submission must include a statement setting out the reasons that any new plan for the **scheduled generator outage** was not included in, or must vary from, the original Subsection (2) (a) submission;
  - (c) for a **forced outage**:
    - (i) inform the **system controller** on a telephone line designated by the **ISO** which will contain a voice recording system; and
    - (ii) use the outage scheduling entry in the **Energy Trading System** to provide to the **ISO** the dates, times, durations, and impact to **MW** capability for the **forced outage** and designate the outage as “Derate-Forced” or “Outage-Forced”.
- (3) The designated **pool participant** must provide to the **ISO** in writing a list of contact persons who will be involved in the planning of **scheduled generator outages** and be in a position of authority to resolve with the **ISO** any issues or concerns regarding **scheduled generator outages** and **forced outages**.

### 5.2.3 Generating Unit Outage Information Confidentiality

Subject to Section 5.2.4 below, **scheduled generator outage** and related information submitted to the **ISO** under these **ISO rules** will be kept confidential by the **ISO** in accordance with **ISO rules** and the related **ISO** policies and procedures, except as otherwise required to be made public under any legislation, regulation or any other provision of the **ISO rules**, or to **WECC** under any applicable agreement provisions.

#### 5.2.4 Aggregate Information Posting

The **ISO** will post on its website and on an aggregate basis the **scheduled generator outage** information for all **generating units**, in a manner that seeks to preserve the confidential nature of the subject matter and precludes the identification of any **owners**, the designated **pool participant** or other directly affected **pool participants**.

#### 5.3 Authority to Issue a Scheduled Generator Outage Cancellation Directive

- (1) Pursuant to subsection 18(1) of the **transmission regulation**, the **ISO** may issue a **directive** to an **owner** of a **generating unit**, or the designated **pool participant**, or both if different persons, to cancel a **scheduled generator outage** planned for that **generating unit** based on the **reliability** and **adequacy assessments** conducted under the provisions of Section 5.1 and under the specific circumstances and in accordance with the procedures set out in these **ISO rules**.
- (2) No **directive** canceling a **scheduled generator outage** will be issued by the **ISO** without the authorization of the Chief Executive Officer of the **ISO** or his designee.

##### 5.3.1 Scheduled Generator Outage Cancellation Procedure

Prior to issuing a **directive** canceling a **scheduled generator outage**, the **ISO** must comply with the following procedures, in the following sequence:

- (1) The **ISO** will consider and analyze the results of the assessments undertaken in accordance with Section 5.1 above, and perform a further assessment of the status of all **generating units** in Alberta based on all **scheduled generator outage** plans submitted by all designated **pool participants** under Section 5.2.2 above.
- (2) After completing the assessments, and taking in to account the total amount of all **generating unit** capacity in Alberta which is planned for **scheduled generator outages**, if the **ISO** determines that there is a high probability of an **adequacy** or **reliability** shortfall then the **ISO** will notify **market participants** on the **AESO** website of its determination.
- (3) The **ISO** will continue to conduct further situational analysis to seek to alleviate the potential **adequacy** or **reliability** shortfall and avoid the cancellation of any **scheduled generator outages**.
- (4) The **ISO** will post the determination referred to in subsection (2) above for a minimum period of one (1) calendar week, and in anticipation that certain **owners** of **generating units** may have flexibility to voluntarily amend plans for **scheduled generator outages** to assist in the alleviation of the **adequacy** or **reliability** shortfall situation.
- (5) If the **ISO** notification and any resulting voluntary actions referred to in subsection (4) above do not result in a reduction in the total amount of **generating unit** capacity planned for **scheduled generator outages** such

that the forecast **adequacy** or **reliability** shortfall will be alleviated, then the **ISO** will contact the individual **owners** to request that **scheduled generator outage** plans be further reviewed.

- (6) If after completing the assessments and procedures set out in subsections (1) through (5) above the **ISO** determines that there remains:
- (a) an immediate need on a short term basis for services provided by certain **generating units** to maintain the necessary level of **reliability** or **adequacy**, as the case may be; and
  - (b) a high probability that the situation will not be alleviated in a voluntary manner:
    - (i) by any **owners** of **generating units** amending or revising **scheduled generator outage** plans; or
    - (ii) through the ordinary course operation of the market;

then the **ISO**, after also taking in to account the factors set out in subsection (7) below, may issue a **directive** to cancel a **scheduled generator outage** planned for that **generating unit**, which cancellation must be on a date no sooner than ninety (90) **days** in advance of the first **day** of the period which has been determined to be the commencement of the **reliability** or **adequacy** shortfall.

- (7) The **ISO** must consider all of the following factors in its determination as to whether or not to issue a **directive** canceling a **scheduled generator outage** as contemplated in this Section 5.3.1:
- (a) The economic and operational consequences for the **owner** of the **generating unit** and for any designated **pool participant**, if a different **person**;
  - (b) The operational and functional impact on the **generating unit** if the subject **scheduled generator outage** is cancelled;
  - (c) The effectiveness of canceling the subject **scheduled generator outage** in alleviating the **reliability** or **adequacy** shortfall;
  - (d) The historical frequency that a given **generating unit** has been the subject of **scheduled generator outage** cancellations, relative to other **generating units** in Alberta;
  - (e) The length of time of, and reasons for, any **scheduled generator outage** the designated **pool participant** has previously submitted to the **ISO** under the reporting requirements set out in these **ISO rules**;
  - (f) The extent to which the **scheduled generator outage** will begin or end during the period of the forecast **reliability** or **adequacy** shortfall;
  - (g) Any requirements or material implications under or related to any applicable municipal, provincial or federal legislation or

regulations if the **ISO** proceeds to issue a **directive** to cancel a given **scheduled generator outage**;

- (h) The practicality and effectiveness of market-based solutions to alleviate the **reliability** or **adequacy** shortfall, including a consideration of **load** curtailment options.

### 5.3.2 Scheduled Generator Outage Planned Costs and Work Submission

- (1) The **owner** of a **generating unit** who has received a **directive** for the cancellation of a **scheduled generator outage** for the **generating unit** must use all reasonable efforts to submit to the **ISO** in advance of the period when the outage would have occurred:
  - (a) a detailed description and estimation of the work, which are to be carried out during the **scheduled generator outage**, including an itemization of the specific plant, machinery and equipment which are the subject of the work during the that period; and
  - (b) an estimate of any known or anticipated **incremental generation costs** that may be the basis for a claim for compensation under these **ISO rules**.
- (2) The submissions set out in subsection (1) do not limit compensation claims for other reasonable demonstrable costs.

### 5.3.3 Time Constrained Scheduled Generator Outage Cancellation

Notwithstanding the provisions of section 5.3.1, if in the opinion of the **ISO** it is evident that immediate **reliability** or **adequacy** circumstances will not allow sufficient time to permit the **ISO** to comply with any or all of the procedures set out in that section 5.3.1, then the **ISO** may dispense with any such procedures and proceed to issue a **directive** to cancel a **scheduled generator outage**.

### 5.3.4 Scheduled Generator Outage Cancellation Report

If the **ISO** issues a **directive** under this Section 5.3 to cancel a **scheduled generator outage** then the **ISO** must prepare a report and post it on the **ISO** website, which report will contain:

- (a) an explanation of the circumstances, background and chronological events that caused and are related to the issuance of the **directive** cancelling the **scheduled generator outage**;
- (b) the particulars of the **scheduled generator outage** that was cancelled, including date of cancellation, duration, and quantities (MW) affected;
- (c) any material market impacts known to the **ISO**;
- (d) whether the cancellation was a time and procedurally constrained one under Section 5.3.3, and the reasons for a decision to depart from any prescribed procedures set out in Section 5.3.1; and

- (e) any other matters that, in the **ISO's** opinion, will provide a full and complete explanation to all **market participants** of the decision taken.

#### 5.4 Payment Eligibility for Incremental Generation Costs, and Claim Limitations

- (1) The designated **pool participant** or the **owner** of the **generating unit**, or both of them if different **persons**, that has had a **scheduled generator outage** cancelled by a **directive** under these **ISO rules** is eligible as a claimant for an **incremental generation costs** payment in accordance with the provisions and procedures of this section 5.4.
- (2) Subject to subsection (9) below, the **ISO** must pay any **incremental generation costs** payment to the designated **pool participant** or the **owner** of the **generating unit**, or both if different **persons**, whose **scheduled generator outage** has been canceled by a **directive** from the **ISO** pursuant to section 5.3.
- (3) Within forty days after the end of the **settlement period** related to the period during which the **directive** was effective, the claimant under this Section 5.4 must provide the **ISO** with a written statement which contains the detailed information of the claim and calculation of **incremental generation costs** as incurred and caused by the cancellation, to the extent those details and calculations are known or estimable as of the date of delivery of the statement to the **ISO**.
- (4) If any detailed information or calculations are not known or estimable as of the date of delivery of the statement, then in the statement the claimant must provide an estimate of the date by which any of the outstanding information or calculations will be finally determined and delivered to the **ISO**.
- (5) The claimant must provide the **ISO** with a supplementary written statement setting out all outstanding information or calculations as soon as reasonably practicable after the delivery of the original statement, but in any event no later than one (1) year after the end of the settlement period related to the period during which the cancellation **directive** was effective.
- (6) The claimant must provide to the **ISO** any and all of the claimant's own and third party supporting data, records, invoices, formulas, calculations, third party contract claims and related terms and conditions, and any other information or materials used to calculate or determine the amounts claimed in the statement or any supplementary statement, plus any other detail and information as may be reasonably requested by the **ISO** in order to verify the subject **incremental generation costs**, claims, calculations and particulars.
- (7) Once the submission and related materials are filed with the **ISO** and any information deficiencies have been met by the claimant, the **ISO** approval of the compensation and settlement in respect of any **incremental generation costs** will occur on or before the fortieth (40<sup>th</sup>) **day** following the **day** of the receipt by the **ISO** of the last of the initial statement, supplementary statement, or deficiency materials.
- (8) If there is any dispute between a claimant and the **ISO**, in respect of an **incremental generation cost** claim for compensation then the matter will be resolved in accordance with the provisions of applicable **ISO rules**.

- (9) If the claimant has been issued a **directive** to cancel a **scheduled generator outage** but is eligible for compensation for such cancellation pursuant to the provisions of a **transmission must run** contract with the **ISO**, then the claimant will not be eligible for **incremental generation cost** claims under this Section 5.4.
- (10) No incremental generation cost claim by any claimant may include:
- (a) any costs or claims associated with or related to the claimant's market or hedging portfolio, other than those allowed under subsection (iv) (B) of the definition of incremental generation costs which limits such costs and claims to the generating unit which is the subject of the directive;
  - (b) any form of lost opportunity costs, or other form of loss of profits, revenue, earnings or revenue not specifically provided for in the definition of **incremental generation costs**;
  - (c) any raw material, fuel, processing, production, manufacturing or industrial costs of any nature which are not directly related to the generating unit's participation in the energy market;
  - (d) any fixed costs; or
  - (e) any costs or claims that otherwise could have been mitigated by the claimant through all reasonable efforts.

#### 5.5 Payment and Cost Recovery

- (1) The calculation by the **ISO** of the payment for **incremental generation costs** incurred due to the cancellation of a **scheduled generator outage** of a **generating unit** will be based on the information provided to the **ISO** by the claimant in accordance with the provisions of Section 5.4.
- (2) The **incremental generation costs** paid to a claimant for an approved claim by a **pool participant** who has been issued a **directive** to cancel a **scheduled generator outage** will be an **ancillary service** cost.

#### 5.6 Forecast Dispatch Price

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

##### 5.6.1 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 **available transfer capacity** for the **interconnections** for the **settlement interval**.

### 5.6.2 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** from the **pool participant** 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 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 and wheel- through interchange transactions.*

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

- a) The physical scheduling of energy on an external **interconnection** is governed by the operating procedures agreed to by the **ISO** with the **balancing authority area operator** at the other end of the **interconnection**.
- b) The **system controller** will use the same form of **energy market dispatch** as provided in **rule 6.3.2**.
- c) **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 **pool participant** must submit a single **e-tag** for each **wheel-through interchange transaction**.
- f) The sum of the **importer's e-tag quantities (MW)** and **importer's wheel-through interchange transaction e-tag quantities (MW)** for a single import **source asset** may only be less than the **available capability** of such **asset** 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)** and **importer's wheel-through interchange transaction 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)** and **importer's wheel-through interchange transaction e-tag quantities (MW)** cannot be greater than the **available capability offered** two hours before the start of a **settlement interval**.
- g) The sum of the **exporter's e-tag quantities (MW)** and **exporter's wheel-through interchange transaction e-tag quantities (MW)** for a single export **sink asset** may only be less than the **available capability** of such **asset** 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 **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)** and **exporter's wheel-through interchange transaction 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)** and **exporter's wheel-through interchange transaction e-tag quantities (MW)** cannot be greater than the **available capability offered** two hours before the start of a **settlement interval**.
- h) If an **e-tag** for a **wheel-through interchange transaction** is curtailed, then the **importer/exporter** must restate both the import **offers** and the export **bids**, corresponding to the **wheel-through interchange transaction** in the **e-tag**, to the curtailed volume.

#### 6.3.4 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 **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

#### 6.3.5.1 Authority to Issue a **Long Lead Time Energy Directive**

The **system controller** may, in accordance with this **rule 6.3.5**, issue a **long lead time energy directive** to a **pool participant** with a **long lead time generating asset**.

#### 6.3.5.2 Requirements and Directives

- a) **Long lead time energy** with respect to a **long lead time generating asset** must be declared to the **ISO** by a **pool participant**, upon request by the **system controller** in accordance with **ISO Operating Policies and Procedures**.
- b) A **pool participant** whose **long lead time generating asset** is not synchronized to the **AIES** must submit to the **ISO** the time of day that such **asset** will be synchronized to the **AIES**, in order to have such **asset dispatched** according to the **energy market merit order**.
- c) A **pool participant** whose **long lead time generating asset** is synchronized to the **AIES** but has **long lead time energy** not reflected in its **available capability** due to **asset** constraints, must reflect the availability of such energy by appropriately adjusting the **available capability** of such **asset** in order to have such energy **dispatched** according to the **energy market merit order**.
- d) The time of day and the adjustment to **available capability** referenced in **rules 6.3.5.2 (b) and 6.3.5.2 (c)** must represent the physical condition of the **long lead time generating asset** as determined by either the time of the last notice of the **long lead time generating asset's** intention to start or the time of such **asset's** last **dispatch off**, as it relates to the **operating constraints** submitted to the **ISO** under **rule 3.5.3.4**. The time of day and the adjustment to the **available capability** must be submitted at least two hours prior to the beginning of the **settlement interval**.
- e) Subject to subsections 18(1) and 18(2) of the **T-Reg**, and in **accordance with ISO Operating Policies and Procedures**, the **system controller** may issue a **long lead time energy directive** to a **pool participant** for a specified **settlement interval**, if the **adequacy** assessment pursuant to **ISO Operating Policies and Procedure** forecasts insufficient supply to meet **AIES demand**

during such **settlement interval**. The **system controller** must cancel the **long lead time energy directive** once the **adequacy assessment** indicates there is sufficient supply to meet **AIES demand** in subsequent **settlement intervals**.

- f) Subject to **rules 6.3.5.2 g)** and 8.1.1 and the definition of **incremental generation costs**, a **pool participant** that has complied with a **directive** to provide **long lead time energy** and the cancellation of such **directive** may be eligible to receive payment for **incremental generation costs** from the **ISO**.
- g) A **pool participant** that elects to participate in the energy market before receiving a **long lead time energy directive**, or after receiving a cancellation of a **long lead time energy directive** but before complying with such cancellation, is not eligible to receive payment for **incremental generation costs**. A **pool participant** that has received a **long lead time energy directive** may change the availability of the **long lead time energy** in accordance with **ISO rules 6.3.5.2 b)**, 6.3.5.2 c) and 6.3.5.2 d). In such circumstances, the **system controller** must cancel the **long lead time energy directive** and **dispatch** the **long lead time generating asset** according to the **energy market merit order** and the **pool participant** is not eligible for payment for **incremental generation costs**.

#### 6.3.5.3 Payment for Incremental Generation Costs

- a) Payment for **incremental generation costs** to a **pool participant** that has complied with a **long lead time energy directive** is intended to keep the **pool participant** whole, to the extent that energy receipts received as a result of the **directive** do not recover **incremental generation costs**.
- b) In the event a **pool participant** is eligible for payment for **incremental generation costs** and does not recover its **incremental generation costs** from the energy receipts received or associated with the **energy production** that is a result of a **long lead time energy directive**, the **ISO** must pay an additional amount up to, but not more than, the **incremental generation costs** net of such revenue.

#### 6.3.5.4 Financial Settlement

Where a **long lead time generating asset** has complied with a **long lead time energy directive**, then:

- a) within 40 **business days** after the end of the **settlement period** in which such **directive** was issued, the **pool participant** must issue to the **ISO** a statement showing:

- (i) amount owing or owed as calculated in accordance with the definition of **incremental generation costs** and this **rule 6.3.5.4** along with supporting documentation; and
  - (ii) such other information as the **ISO** considers appropriate and has requested;
- b) the **pool participant** must provide to the **ISO** the supporting information used to determine the amount specified in any statement provided pursuant to this **rule 6.3.5.4**, including all information necessary to confirm the costs, charges and other items specified in the definition of **incremental generation costs**;
  - c) settlement in respect of any such statement shall occur on or before 40 business days following receipt by **ISO** of the statement and supporting information specified in this **rule 6.3.5.4**; and
  - d) if there is any dispute between a **pool participant** and the **ISO** in respect of an **incremental generation cost** claim for compensation then the matter will be resolved in accordance with the provisions of the applicable **ISO rules**.

#### 6.3.5.5 Reporting

In the event the **system controller** issues a **long lead time energy directive** the **ISO** must prepare a report and post such report on the **AESO** website. Such report must include:

- a) an explanation of the circumstances that caused and are related to the issuance of a **long lead time energy directive**, (e.g., date, duration, quantities (**MW**) affected);
- b) chronological events and material market impacts;
- c) any other matters the **ISO** deems appropriate.

#### 6.3.6 Dispatch Down Service Dispatch

##### 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

The **system controller** must **dispatch off operating blocks** in the **energy market merit order** that have offered eligible **DDS** when the conditions described in **rules 6.3.6.2 a) or 6.3.6.2 b)** or in both exist.

- a) With respect to **DDS** for **transmission must-run** quantities the conditions are:
  - 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 sum of the **transmission must-run** quantity (**MW**) and the **long lead time energy directive** quantity (**MW**) is greater than **constrained down directive** quantity (**MW**) as calculated by the **system controller**,
- b) With respect to **DDS** for a **long lead time energy directive** the conditions are:
  - i) A **pool participant** has received a **long lead time energy directive**;
  - ii) A **long lead time generating asset** is delivering its energy in accordance with such **directive**; and
  - iii) The highest priced **operating block** in the **energy market merit order** for the current **settlement interval** has **not been fully dispatched**.

#### 6.3.6.3 Determining Dispatch Down Service Dispatch Quantity

- a) Subject to **rules 6.3.6.2 a) and 6.3.6.2 b)**, the **DDS dispatch** quantity (**MW**) is the lesser of:
  - i) the **transmission must-run** quantity (**MW**) and the **long lead time energy directive** 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** with respect to **DDS for transmission must-run** quantities will be **dispatched on** by the **system controller** prior to **dispatching operating blocks** that are greater than the **reference price**.
- c) **Operating blocks** in the **energy market merit order** that have been **dispatched off** with respect to **DDS for a long lead time energy directive** will be **dispatched on** by the **system controller** following the **dispatch of the highest priced operating block** in the **energy market merit order** for the current **settlement interval**.

#### 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 **DDS offer** in the **DDS merit order**, then the **system controller** will **dispatch** the next **DDS offer** in the **DDS merit order** that is eligible to provide **DDS**.

The **system controller** will **dispatch DDS** in accordance with **rules 6.3.6.2** and **6.3.6.3**. Notwithstanding **rule 6.3.6.3 a)**, the quantity of the **DDS dispatch** may be less than the quantity determined in such **rule** during the following periods:

- a) The period of time when the **system controller** has **dispatched** up to the **reference price** in the **energy market merit order**, requiring **operating blocks** in the **energy market merit order** to be **DDS dispatched off**, prior to **dispatching operating blocks** that are greater than the **reference price**.
- b) The period of time when the **system controller** has **dispatched** down to the **reference price** in the **energy market merit order** requiring **operating blocks** in the **energy market merit order** to be **DDS dispatched on**, subject to **rule 6.3.6.1** and **6.3.6.2**.

#### 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 **MVA** 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 in their declaration at all times.
- e) **Automatic Voltage Regulator (AVR)** – The **asset AVR** will be in the state declared in their declaration 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 Dispatches

### 6.6.1 Energy Market Dispatch Compliance Responsibilities of Pool Participant

- (a) **A pool participant** may only deliver energy to the **AIES** pursuant to a **dispatch** or a **directive** issued by the **system controller**.
- (b) Without limiting the generality of subsection (a) and subject to the provisions of this **rule 6.6**, a **pool participant** must comply with and follow an **energy market dispatch**.
- (c) With regard to its general responsibilities under **rule 6.6.1 (e)**, a **pool participant** must use all reasonable efforts to cause any **generating assets** referenced in an **energy market dispatch** to be operated using **good electric operating practice** to the quantity (**MW**) that is the subject of that **energy market dispatch**.
- (d) The **pool participant** must coordinate its energy, **dispatch down service** and **ancillary services** submissions to ensure that it is able to comply with all **dispatches** related to those submissions.

- (e) The **pool participant** must meet its **energy market dispatch** compliance responsibilities using a standard of practice attained by exercising the degree of knowledge, skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced person engaged in the same type of undertaking, including the design, implementation and use of a reasonable **energy market dispatch** protocols, together with personnel and software systems designed to detect and address errors or omissions in a timely fashion.

#### 6.6.2 Generating Asset Steady State Compliance

- (a) During **generating asset steady state**, with reference to an **energy market dispatch** issued to a **pool participant**, the average quantity (MW) delivered by a **generating asset** in any **10 minute clock period** referenced in the **energy market dispatch** must not vary from the **energy market dispatch** quantity (MW) by more than the **ADV**.
- (b) A **pool participant** that is supplying **regulating reserve** from a **generating asset** must ensure that the quantity (MW) delivered in any **10 minute clock period** is:
  - (i) not less than the **energy market dispatch** quantity (MW) minus the **ADV**, and
  - (ii) not greater than the **energy market dispatch** quantity (MW) plus the **regulation reserve** plus the **ADV**.

#### 6.6.3 Ramping Compliance

- (a) In accordance with an **energy market dispatch** issued to a **pool participant**, the output of a **generating asset** which is the subject of the **energy market dispatch** and is **ramping** must be changed to move directionally towards the quantity (MW) indicated in that **energy market dispatch** within ten (10) minutes of the time specified in the **energy market dispatch**.
- (b) a **generating asset** must reach **generating asset steady state** in:
  - (i) no longer than the period of time calculated as follows:
    - (A) divide the incremental **energy market dispatch** quantity (MW) by the **ramp rate** submitted by the **pool participant** in the **Energy Trading System**;
    - (B) add forty percent (40%) of the time calculated in **rule 6.6.3(b) (i) (A)** or five (5) minutes, whichever is greater;
    - (C) add the ten (10) minutes referred to in **rule 6.6.3 (a)**;and
  - (ii) no sooner than the period of time calculated as follows:
    - (A) divide the incremental **energy market dispatch** quantity (MW) by the **ramp rate** submitted by the **pool participant** in the **Energy Trading System**;

(B) subtract forty percent (40%) of the time calculated in **rule 6.6.3(b) (ii) (A)** or five (5) minutes, whichever is greater.

#### 6.6.4 Operational Deviation Energy Market Dispatch Relief

- (a) With respect to an **energy market dispatch**, in the event that a **generating asset** experiences an **operational deviation**, the **pool participant** must verbally inform the **system controller** as soon as practical of the occurrence of the **operational deviation** and provide a description of the cause if known.
- (b) The **pool participant** must inform the **system controller** of the information required under subsection (a) on a telephone line designated by the ISO which will contain a voice recording system.
- (c) Unless otherwise instructed by the **system controller**, the **available capability** of a **generating asset** must be restated in accordance with **rule 3.5.4.2** no later than twenty (20) minutes after the commencement of the **operational deviation**, if the **operational deviation** extends for twenty (20) minutes or longer.

### 6.6.5 Exceptions to Non-Compliance

Notwithstanding the provisions set out in **rules** 6.6.2, 6.6.3 and 6.6.4, a **pool participant** will not be considered to be non-compliant with an **energy market dispatch** for a **generating asset** if the **pool participant** has met its responsibilities as set out in **rule** 6.6.1 and if one or more of the following circumstances occur:

- (a) The **generating asset** is **ramping** into position to provide **operating reserves** in response to an **ancillary service dispatch** in the fifteen (15) minutes before the time indicated in that **ancillary service dispatch**;
- (b) The **generating asset** is operating below the **minimum stable generation** level indicated in the **Energy Trading System**, but only if that **generating asset** is:
  - (i) coming on line and its **available capability** submitted to the **ISO** is equal to its **minimum stable generation** and it has received an **energy market dispatch** for that quantity (**MW**);
  - (ii) going off line and its **available capability** submitted to the **ISO** is equal to zero (0) and it has received an **energy market dispatch** for that quantity (**MW**);
  - (iii) unable to follow the **ramp rate** submitted by the **pool participant** in the **Energy Trading System** when its output is being increased to its **minimum stable generation** and a verbal plan has been submitted to the **system controller** indicating the proposal for **ramping to minimum stable generation**, which verbal plan must be updated for deviations of greater than thirty (30) minutes or fifty (50) **MW**; or
  - (iv) stopped at an output level not identified in the verbal plan referenced in iii) above, but which is below **minimum stable generation** for more than thirty (30) minutes for an operational reason and has restated its **available capability** accordingly;
- (c) The **generating asset** is responding to abnormal frequency through automatic governor action;
- (d) An **operational deviation** has occurred and the **pool participant** has complied with **rule** 6.6.4; or
- (e) Energy is being delivered to the **AIES** from a **generating asset** while it is being tested or **commissioned** or both, in accordance with any applicable **ISO rules** and Operating Policies and Procedures.

## 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**.

#### 6.7.2 System Controller

*The System Controller has certain responsibilities for ensuring 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**.

#### 6.7.3 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:

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

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

**Wire owners' load** curtailment plans for supply shortfall events, at minimum, must consider the following factors:

- a) The requirements of **LCP**;
- b) Operating limit violations;
- c) The need to maintain the integrity of **remedial action schemes** and the **under frequency load shedding scheme**;
- d) Public safety and environmental impact; and
- e) **System controller** discretion to adjust curtailments as required to account for unforeseen circumstances.

## 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 judgment 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 **Commission** to suspend market operations;
- f) Circumstances that, in the judgment of the **system controller**, warrant the suspension of the energy market.

### 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 tools such as the **energy market merit order** list;
  - iv) The **AIES** breaks up into two (2) or more **electrical islands**
  - v) In the judgment 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. THIS SECTION IS INTENTIONALLY LEFT BLANK

**8. POWER POOL FINANCIAL SETTLEMENT – REMOVED**  
Effective July 1, 2011

**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), d), and e)** 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**:

<b>TFO</b>	<b>Service area</b>
AltaLink L.P.	FortisAlberta Inc.
ATCO Electric Ltd.	ATCO Electric
ENMAX Power Corporation	ENMAX Corp.
EPCOR Distribution & Transmission Inc.	EPCOR Distribution & Transmission Inc.
City of Red Deer	City of Red Deer
City of Lethbridge	City of Lethbridge

9.1.1.2 Directions

- a) Subject to **rules 9.1.1.2 b), c), d), and e)**,
  - 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:

<b>Owners</b>
AltaLink L.P.
TransAlta Utilities Corp
ATCO Electric Ltd.
ENMAX Power Corporation
EPCOR Distribution & Transmission Inc.
City of Red Deer
City of Lethbridge

- 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 **Commission**;
- d) With respect to a **Project** that is located in more than one **service area**, where the **TFOs** in those service areas have entered into an arrangement or agreements, with respect to the **Project**,
  - i) whereby the **Project** is to be constructed or operated or both by one or more of the **TFOs** or by a separate entity created for the purpose of the **Project** and wholly owned, directly or indirectly, by one or more of: (A) the **TFOs**; (B) the direct or indirect owners of the **TFOs**; and (C) entities that are directly or indirectly wholly owned by the owners of the **TFOs**; and
  - ii) which would result in the safe, reliable and efficient operation of the transmission system and such arrangement or agreement has been filed with the **Commission**.

the **ISO** may issue a **Direction** in respect of the **Project** to one or more of the **TFOs** in accordance with such arrangement or agreement, and one or more of the **TFOs**, or the entity created for the purpose of the **Project**, is eligible to apply for the construction or operation, or both, of the transmission facilities.

- e) 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 the **T-Reg**:
  - 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:
  - (i) it has received a **Service Proposal** from the **Designated TFO** for such **Project**, or
  - (ii) a **Transmission Customer** has agreed, in writing, to forgo the **Service Proposal** review by the **ISO** and to support the **ISO**'s issuance of such **Direction** on the basis of a **NID Estimate** for such **Project**, or
  - (iii) the **Direction** contains conditions requiring the **ISO**'s receipt of a **Service Proposal** for such **Project** in advance of the **Designated TFO**'s submission of the **Transmission Facility Proposal** for the **Project**
- (c) The **ISO** shall provide to the **Designated TFO** with such request or to a **Designated TFO** referred to in the forgoing 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 **Commission** 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 **Commission** 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 15<sup>th</sup> **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 practical 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 **Commission** 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 60<sup>th</sup> 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 **Commission** 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 **Commission** 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 **Commission**, or **Commission** 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 **T-Reg**.

### 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, a change, an enhancement, or an upgrade to the **AIES** 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 either one or both of the following:
- i. For a **generating unit**, a minimum percentage change of 0.25% in the generating unit's **loss factor** (relative to the unit's size). This could result in a recalculation of the **generating unit's loss factor**.
  - ii. A minimum 5% change of the **AIES's** average **AIES losses**. This could result in a recalculation of all **loss factors** for the **AIES**.
- c. The **ISO** must make publicly available by posting on its website the following:
- i. A list of annual binding **loss factors** for:
    - all **generating units** directly connected to the **AIES**,
    - **export service** and **import service**; and
    - **opportunity service**, excluding **import service** and **export service**.

The **loss factors** will be posted by the first week in November of each year prior to them becoming effective.
  - ii. 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**;
  - iii. A list of estimated, non-binding **loss factor ranges** for the fifth year subsequent to the year referenced in the foregoing **rule 9.2.2.c.ii**. for all **generating units** and other services expected to be directly connected to the **AIES**. The non-binding **loss factor ranges** will be posted by March 31 of each year. In the event the **ISO** has filed an update to the 10-year plan referenced in the **T-Reg** within the 90 days prior to such March 31, the **ISO** will post such non-binding **loss factor ranges** within 90 days from the date of filing.
  - iv. The **generic stacking order** for each year.
- 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 **AIES 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 adjusted by a common method to limit the **loss factors** as follows:
  - (i) **loss factors** associated with a charge must not exceed 12%; and
  - (ii) **loss factors** associated with a credit must not exceed 12%.
- 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 on the **AIES**, 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. A request for the calculation of the **loss factor** for a **generating unit** that a person proposes to construct which **generating unit** would result in, in the **ISO**’s opinion, significant changes to the **AIES**, must be made by way of an application to the **ISO** Projects group.
- 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 service 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 6 of the **ISO rules**, “Transmission Loss Factor Methodology and Assumptions” will be treated as an amendment to this **rule 9.2**.

### 9.2.3 Recovery of Costs of Losses on the AIES

- a) The **owner** of a **generating unit** must pay the charges, and is entitled to the credits, associated with **AIES losses**, as determined by the **ISO tariff**.
- b) A **market participant** importing **electric energy** must pay the charges, and is entitled to the credits, associated with **AIES losses**:
  - (i) in the same manner as for **generating units**; and
  - (ii) at the point where the import path connects to the remainder of the **AIES**.
- c) A **market participant** receiving **system access service** for **import service** or **export service** must pay **AIES loss** costs representing the average level of such losses incurred in transporting **electric energy** on an import path or export path as defined by the **ISO** in Appendix 6 of the **ISO rules**.

- d) A **market participant** receiving **opportunity service** where the **ISO** determines that a line **loss factor** applies, must pay **AIES loss** costs charges or receive credits that are determined in a similar manner as the **AIES loss** charges and credits determined for **owners of generating units**.
- e) A **market participant** receiving **system access service** for merchant transmission lines connected to the **AIES**, will be assessed an import **loss factor** at the connection point. Average import and export **AIES losses** will not be assessed. For merchant transmission lines not connected to the **AIES** (isolated), no **loss factors** will be determined.
- f) The **calibration factor** is applicable for the recovery of **AIES losses** and the average **losses** calculated on the import/export flow paths and will apply to all **loss factors**.
- g) The calculation and determination of **AIES losses** charges and entitlement to credits pursuant to **rules 9.2.2.a – 9.2.2.f** inclusive, will be administered in accordance with the **ISO tariff**.

#### 9.2.4 Loss Factor Modeling and Assumption Details

Descriptions of the **loss factor methodology** and the assumptions used to calculate **loss factors** is set out in Appendix 6 of the **ISO rules**.

### 9.3 **Abbreviated Needs Identification Approval**

#### 9.3.1 Purpose of Rule

The **abbreviated needs identification approval process** is applicable to **system access service** projects and **transmission facility** projects. The purpose of the **rule** is to establish criteria prescribing when **ISO** may use the **abbreviated needs identification approval process**.

#### 9.3.2 Abbreviated Needs Identification Approval Process

Where **Projects** are of a nature, size and cost as set out in the **Commission rules**, the **ISO** may determine that the **ISO's** practices with regard to an **abbreviated needs identification approval process** apply to such **Project**.

### 9.4 **Real Time Transmission Constraint Management**

#### 1. **Applicability**

Section 9.4 applies to:

- (5) the **ISO**; and
- (6) a **market participant**.

## 2. Requirements

### 9.4.1 Real Time Transmission Constraint Mitigation

- (1) Subject to subsection 9.4.2, the **ISO** must comply with the following procedures in the following sequence to mitigate a **transmission constraint** in the present, real time:
  - (a) taking in to account the **constraint effective factors**, determine the **assets** that would be effective in mitigating the **transmission constraint** and apply the appropriate procedure set out in this subsection 9.4.1(1) to those effective **assets**;
  - (b) ensure that any generating **assets** effective in mitigating the **transmission constraint** are not generating **MW** above their **maximum capability**, by cancelling any related **directives**;
  - (c) curtail by **directives**, any **downstream constraint side** service under **ISO tariff** rate schedules *Rate XOS 1 Hour* and *Rate XOS 1 Month* and any **upstream constraint side** service under **ISO tariff** rate schedule *Rate IOS*, that are effective in mitigating the **transmission constraint**;
  - (d) curtail by **directives**, any **loads** receiving service under **ISO tariff** rate schedules *Rate DOS 7 Minutes*, *Rate DOS 1 Hour* and *Rate DOS Term* at the **downstream constraint side** of the **transmission constraint**, that are effective in mitigating the **transmission constraint**;
  - (e) with regard to the use of foreseeable and unforeseeable **transmission must run** as referenced under Article 11 of the general terms and conditions of the **ISO tariff**:
    - (i) issue a **dispatch** to any **generating asset** that is under contract with the **ISO** to provide foreseeable **transmission must run**, and that is effective in mitigating the **transmission constraint** at the **downstream constraint side**;
    - (ii) in circumstances where the **transmission constraint** creates a need for unforeseeable **transmission must run** so as to be in compliance with any **reliability standards** and **reliability** criteria, issue a **directive** to provide the unforeseeable **transmission must run** to any **generating assets** that are effective in mitigating the **transmission constraint** at the **downstream constraint side**;
  - (f) issue **directives** to curtail any **generating assets** that are effective in mitigating the **transmission constraint** at the **upstream constraint side** using the following additional procedures;

- (i) the **ISO** must curtail using the **energy market merit order** with the highest priced in merit **offer** from the **generating asset** effective in mitigating the **transmission constraint** being curtailed first, followed by the **generating asset** with the next highest priced in merit **offer**, if necessary, during the remainder of the then current **settlement interval** and the next two (2) **settlement intervals**;
  - (ii) if there is a need to curtail two (2) or more such **generating assets** having equally priced **offers**, then the **ISO** must issue **directives** to the **generating assets** to curtail using a pro-rata methodology;
  - (iii) if the **transmission constraint** persists on a continuous basis for longer than the remainder of the then current **settlement interval** and the next two (2) **settlement intervals**, then the **ISO** must reallocate the required curtailment, using a pro-rata methodology, to all **generating assets** having in merit **offers** that are effective in mitigating the **transmission constraint**; and
- (g) curtail by **directives** any **loads** receiving service under **ISO tariff** rate schedule *Rate DTS* at the **downstream constraint side** of the **transmission constraint**, if so required by the **reliability** criteria, using the following procedures:
  - (i) the **ISO** must allocate the **load** curtailment using the **energy market merit order** with the lowest priced effective **bid** being curtailed first, followed by the next lowest priced effective **bid**, if necessary;
  - (ii) if there is a need to curtail **loads** with equal price **bids**, or there are no **bids** remaining, then the **ISO** must curtail using a pro-rata methodology.
- (2) With regard to any of the procedures set out in subsection 9.4.1 (1):
  - (a) the **ISO** must issue **dispatches** for **dispatch down service** as appropriate in accordance with subsection 6.3.6.3 of the **ISO rules**;
  - (b) the **ISO** must use established procedures as appropriate to restore the energy and supply balance to the **interconnected electric system**, including the issuance of **dispatches** to increase or begin **energy production** to any **generating units** that are at the **downstream constraint side** of the **transmission constraint**, in accordance with the **energy market merit order**;
- (3) With regard to any of the procedures set out in subsection 9.4.1(1) that involve **generating asset** or **load** curtailment, if the **generating asset** or **load** is supplying both **ancillary services** and **energy production**, then the **ISO** must first curtail **ancillary services** before **energy production**.

- (4) When a **transmission constraint** has activated or is expected by the **ISO** to activate a **remedial action scheme**, then after the **ISO** has ensured that the **interconnected electric system** is operating in a safe and reliable mode, the **ISO** must recommence the procedural sequence set out in subsection 9.4.1(1) to manage the **transmission constraint**.

#### 9.4.2 Additional Real Time Constraint Management Procedures

As the circumstances may warrant, the **ISO** may take in to account the following alternative or complementary procedures to mitigate any present or real time **transmission constraint**:

- (1) if the result of following the procedures set out in subsection 9.4.1 (1) (f) (i) will be to curtail any **generating asset** below its **minimum stable generation** level but the **ISO** expects the **transmission constraint** to last only a short duration, then the **ISO** by **directive** may curtail the **generating asset** to above or at the **minimum stable generation** level of that **generating asset**;
- (2) in circumstances where abnormal operating or market conditions exist, the **ISO** acting reasonably may, in implementing mitigation measures to address a **transmission constraint**, take procedural steps not listed in subsection 9.4.1(1) if those steps are substantially consistent with **good electric industry operating practice** and the duties of the **ISO** under the **Act** to direct the safe, reliable and economic operation of the **interconnected electric system**;
- (3) the abnormal conditions referred to in subsection 9.4.2 (2) include circumstances of unusual natural risks to the **interconnected electric system**, and issues raised by a unique real time system configuration or **reliability** concerns stemming from voltage or **reactive power** effects;
- (4) in mitigating a **transmission constraint**, the **ISO** must follow the procedural sequence set out in subsection 9.4.1(1) and any more specific and complementary **ISO rules** applicable for a given regional area of the **interconnected electric system**, unless real time operating conditions change such that following the specified sequence would put the **ISO** in contravention of any **reliability standard** requirement by failing to achieve compliance within the operating limits or required response time specified in that **reliability standard**;
- (5) if the **ISO** alters the procedural sequence or takes alternate mitigating actions because of the circumstances referred to in subsections 9.4.2 (2) and (4) above, then once the **ISO** is assured that the **interconnected electric system** is operating in a safe and reliable mode, the **ISO** must recommence the procedural sequence set out in subsection 9.4.1(1).

## 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** prior to the first year of the refund period or has maintained **commercial operation** for each year of the refund period for all subsequent years.
- b) **Capacity Use** — The **generator asset**'s average capacity factor has met or exceeded the following levels for such year:

Generating Unit Type	Capacity Factor
Coal	75%
Natural Gas — Base Load	50%
Natural Gas — Peaking	10%
Hydro	20%
Wind	20%
Biomass and Waste	75%
Other Generating Unit Type not listed above	As determined by the ISO, not less than 10%

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 **Commission** 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** plus the sum of the contracted **ancillary services** energy to the **STS Capacity** for such unit during the calendar year multiplied by the number of hours in such year. **Average capacity factor** is expressed and can be calculated according to the formula:

Average Capacity Factor = Sum of {[Metered Energy in calendar year (MWh)] + [Contracted Ancillary Services Energy in calendar year (MWh)]} / [STS Capacity (MW) × hours in calendar year (h)]

- c) Operation within **STS Capacity** — The **generating asset's metered demand** has not exceeded 110% of the **STS Capacity** at any time during the calendar 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 calendar 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 calendar 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 calendar 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 calendar 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 calendar 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) Confirmation that the **generating asset** has maintained **commercial operation** throughout the calendar year.

- iv) The **generating asset** type.
  - v) The sum of **metered energy** for the **generating asset** by month for the calendar 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 calendar 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 an ISO 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 rule 11.**

### 9.6 Merchant Transmission Facility Open Access

#### 9.6.1 Purpose of Rule

The purpose of this **rule** is to prescribe requirements that a **merchant intertie proponent** must meet with respect to providing **open access**.

Pursuant to the **T-Reg**, a **merchant intertie proponent** must, in accordance with this **rule 9.6**,

- a) provide **open access** to **market participants** and file its **merchant intertie terms and conditions** with the **Commission** for information, and

- b) make capacity available on the **intertie** in an open and non-discriminatory manner, similar to the access available to other **interties**.

#### 9.6.2 Open Access

- a) A **merchant intertie proponent** must provide prior public notice of its intention to proceed by way of the **open access** process with respect to an **intertie**. Such public notice must, without limitation, be inserted in major newspapers in Alberta and in jurisdictions outside Alberta in which the **intertie** 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 intertie proponent** must conduct public information sessions in Alberta and such jurisdictions.
- b) The **merchant intertie proponent** must make publicly available the names of persons who have acquired **intertie** 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 **intertie** 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 intertie proponent** or other person who is obligated by this **rule 9.6** to comply with the **open access** process participates in the **open access** process, the **merchant intertie 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 Intertie T's and C's

- a) A **merchant intertie proponent** must include with respect to its **intertie**, without limitation, appropriate provisions in its **merchant intertie T's and C's** to prevent capacity withholding and other anti-competitive behavior.
- b) The **merchant intertie proponent** must make its **merchant intertie T's and C's** publicly available to **market participants**.

#### 9.6.4 Compliance Review Right of ISO

In addition to the rights and obligations set forth in **rule 12**, the **merchant intertie proponent** must maintain its books and records at least to the extent reasonably necessary to verify compliance by the **merchant intertie proponent** with this **rule 9.6** and must make such books and records available to the **ISO** upon reasonable prior notice.

## 10. INFORMATION EXCHANGE

### Sections 10.1 to 10.9 – DELETED

Effective as of April 30, 2010

Refer to New ISO Rules “Division – 103 Administration, Section 103.1 Confidentiality” under the New ISO Rules Framework.

### 10.10 Load Outage Reporting

#### 1. Applicability

- (1) To the **ISO**
- (2) To a **market participant** with **load**.

#### 2. Requirements

- (1) Subject to Subsection (2), any **market participant** who has a planned decrease in its capability to consume **load** at a facility of forty (40) **MW** or greater, must comply with the **outage** reporting requirements of this **ISO rule**.
- (2) Subsection (1) does not apply if the decrease has been documented by the **market participant** in a restated **available capability** for the facility, in accordance with **ISO rule 3.5**.
- (3) The **market participant** referred to in subsection (1) above must submit to the **ISO** the following **outage** information, such submission to be in a form approved by the **ISO** and located on the **ISO** website:
  - (i) the commencement date and time of the **outage**, but not where such date and time is historical;
  - (ii) the end date and time of the **outage**; and
  - (iii) the actual decrease (**MW**) in the **load** capability
- (4) The information must be submitted to the **ISO** as soon as reasonably practicable after the **market participant** is aware of the **outage** information.
- (5) Subsequent to receipt by the **ISO** from **market participants** of the submissions referred to in subsection (3) above, on each **business day** the **ISO** will aggregate all **outage** records for **loads** as submitted, and determine the aggregate daily outages in **MW which will be calculated** as:

the sum of **MWh** of all submitted **outages** by time period,  
DIVIDED BY  
the number of hours in the time period.
- (6) Once the aggregate daily **outages** have been determined by the **ISO** under subsection (5) above, the **ISO** also will prepare a daily **outage** report and post it each business day on its website, which report will include:
  - (i) the time and date the report was prepared; and

- (ii) the daily average outage amount (**MW**), rounded to the nearest **MW**, for each **business day** of the then current month and the next three (3) successive months.
- (7) Subject to subsection (8) below, all **outage** information for **loads** submitted to the **ISO** under this **ISO rule** will be kept confidential by the **ISO**, except as otherwise required to be made public under any legislation, regulation or any other provisions of the **ISO rules**. Topic Title
- (8) The **ISO** will post on its website the aggregate daily **outages** report in a manner that, in accordance with any **ISO rules** and policies and procedures governing confidentiality, seeks to preserve the confidential nature of any **outage** information as submitted by any one **market participant** and precludes the identification of any one **market participant**, or other directly affected **pool participant**.

### 3. Appendices

None

### Revision History

Effective	Description
####-##-##	Initial Release

**11. DISPUTE RESOLUTION – DELETED**

Effective as of January 5, 2010

Refer to New ISO Rules “Division – 103 Administration, Section 103.2 Dispute Resolution” under the New ISO Rules Framework

## 12. ISO COMPLIANCE MONITORING

### 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 and investigate the compliance of **market participants** with **applicable rules and standards**.

The **ISO** will use this **rule 12** as a basis for determining whether there is a **suspected violation** by a **market participant**, and the appropriate course of action to take in such circumstances.

#### 12.1.2 Scope

**Rule 12** applies to all **applicable rules and standards**.

#### 12.1.3 Authority

**ISO** compliance monitoring 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 or not **market participants** are in compliance with **applicable rules and standards**.

#### 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** itself, or based upon input from the **Market Surveillance Administrator**, may determine that additional data or information is required from **market participants** in order to monitor or review compliance with **applicable rules and standards**. 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. 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.

A written data or information request will be accompanied by an explanation of the need for such data or information. To the extent that a data or information request relates to **load settlement rules**, the **ISO** will provide the **Commission** with a copy of such request at the same time the data or information request is made. To the extent that a data or information request relates to **ISO rules**, the **ISO** will provide a copy of such request to the **Market Surveillance Administrator** upon the request of the **Market Surveillance Administrator**, or in accordance with **rule 12.5.2**.

The **ISO** will limit the use of data or information obtained in accordance with **rule 12.2.3** to purposes related to compliance with **applicable rules and standards**.

#### 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 in the possession of 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 considered 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 **applicable rules and standards** as a result of one or more of the following:

- 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 **Commission**, or the **Crown**;

- c) an **external referral**;
- d) a **complaint**; or
- e) any other means.

### 12.3.2 Communications to the ISO and Confidentiality

The communication of information for the **ISO** regarding a **complaint, internal referral, external referral**, referral made by the **Market Surveillance Administrator**, the **Commission** or the **Crown**, or any other matter related to **rule 12** is detailed in Appendix 4.

**Compliance monitoring audits** and 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 any **applicable rules and standards** will be treated by the **ISO** on a confidential basis if requested by the **complainant** or referrer.

**Confidential information** obtained pursuant to **rule 12.3.2** will be made available to either or both of the **Commission** or the **Market Surveillance Administrator** as identified in **rule 12.5** and may be used by either or both of those bodies.

### 12.3.3 Preliminary Assessment

- a) In response to an issue relating to non-compliance with **applicable rules and standards** 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 it suspects that a **market participant** may have contravened **applicable rules and standards**. This preliminary assessment may include, but not be limited to, consideration of the following:
  - i) the nature of the issue regarding **applicable rules and standards**;
  - ii) the problem or concern regarding **applicable rules and standards**;
  - iii) the alleged failure of a **market participant** to comply with **applicable rules and standards**;
  - iv) any representations made by a **market participant** that is the subject of an alleged failure to comply with **applicable rules and standards**;
  - v) whether there is a reasonable basis or reasonable evidence to suspect that **applicable rules and standards** was contravened; and
  - vi) any mitigating factors.
- b) For the purposes of assisting the **Commission** or the **Market Surveillance Administrator**, the **ISO** may gather information as part of its preliminary assessment that includes, but is not limited to, the following:

- i) the level of frequency, severity, duration and materiality associated with the issue;
  - ii) whether a **market participant** disclosed the matter to the **ISO** on its own or whether it was prompted to do so;
  - iii) any actions or inactions that a **market participant** took or did not take upon becoming aware of a failure to comply with **applicable rules and standards**;
  - iv) any failure or refusal of a **market participant** to co-operate with the **ISO** regarding an alleged failure to comply with **applicable rules and standards**;
  - v) whether the issue is related to the *Power Purchase Arrangements Determinations Regulation* (AR 175/2000);
  - vi) whether the actions and activities are consistent with the **Act**;
  - vii) any impact or potential to impact a **market participant**;
  - viii) any impact or potential to impact the operation of the market; and
  - ix) any impact or potential to impact the **system controller's** ability to direct the safe, reliable and economic operation of the **AIES**;
- c) Except as required by the **Act or regulation**, a regulatory authority with jurisdiction or **applicable rules and standards**, 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:
- i) the **complaint**, referral or request is frivolous, vexatious, trivial or otherwise does not warrant action on the part of the **ISO**; or
  - ii) 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**. A written response to the party making a **complaint** will not contain **confidential information**.

#### 12.4 Compliance Monitoring Audit

- a) The **ISO** may determine that a **compliance monitoring audit** of a **market participant** is required in order to monitor or review the **market participant's** compliance with specified **applicable rules and standards**. To the extent that such a determination is made the **ISO** may give a written notice or request to the **market participant** including without limitation the following:

- i) that the **ISO** has appointed one or more third parties to assist it in the conduct of all or any part of the **compliance monitoring audit**;
  - ii) that the **market participant** provide data and information to the **ISO** within a reasonable time frame;
  - iii) an explanation of the **ISO**'s rationale and need for the **compliance monitoring audit**; and
  - iv) that the **ISO** may appoint a third party to carry out or assist it with the **compliance monitoring audit**.
- b) With respect to the conduct of any **compliance monitoring audit**, the **ISO**, and its appointed third party, if any, shall without limitation, do the following:
- i) work with the **market participant** to set a reasonable time for the conduct and completion of the **compliance monitoring audit**; and
  - ii) limit the use of data or information obtained through the **compliance monitoring audit** in accordance with **rule 12** to purposes related to compliance with **applicable rules and standards**.

To the extent that a **market participant** disputes the holding of a **compliance monitoring audit** or any aspect of it, it may seek to resolve the dispute in accordance with the dispute resolution provisions of the **rules**. In any event, the **ISO** or the **market participant** may refer the dispute to the **Market Surveillance Administrator** or the **Commission**, as applicable.

- c) The **ISO** and its appointed third party, if any, shall develop a **compliance monitoring audit** report with respect to each **compliance monitoring audit** that shall include, without limitation, the following:
- i) a description of the objective, scope, and methodology of the **compliance monitoring audit**;
  - ii) any **suspected contraventions** with **applicable rules and standards**;
  - iii) any mitigation or remedial action measures, which have been completed or pending by the **market participant**;
  - iv) the nature of any confidential information provided.

A draft of the **compliance monitoring audit** report will be provided to the **market participant** for comment before the **ISO** completes the report. Where as a result of the report, the **ISO** has determined there is a **suspected contravention**, it will refer the matter to the **Market Surveillance Administrator** or the **Commission** in accordance with the **rules 12.5.2** and **12.5.3**, as applicable.

## 12.5 Referrals, Notifications and Reports regarding Compliance Matters

### 12.5.1 Notification to Market Participant

Where the **ISO** determines, as a result of a preliminary assessment as outlined in **rule 12.3.3**, a **suspected contravention**, the **ISO** will provide notice as soon as reasonably practical to the **market participant** that any **applicable rules and standards** may have been contravened.

### 12.5.2 Referral to the Market Surveillance Administrator

Subject to provisions in the **Act** or related regulations and **rule 12.5.3**, in circumstances where the **ISO** determines a **suspected contravention**, the **ISO** must refer the matter to the **Market Surveillance Administrator**.

Referrals made in accordance with **rule 12.5.2** will be done on a confidential basis and will include **confidential information** obtained pursuant to **rules 12.2.3, 12.3.2 and 12.4**. The **ISO** will notify the **market participant** when a **suspected contravention** is referred to the **Market Surveillance Administrator** in accordance with this **rule**.

Except as otherwise determined by the **Market Surveillance Administrator**, information or recommendations provided by the **ISO** to the **Market Surveillance Administrator** will be held confidential and will not be disclosed to **market participants**.

### 12.5.3 Referral to the Commission

Subject to provisions in the **Act** and rules made by the **Commission** respecting **load settlement**, in circumstances where the **ISO** has determined a **suspected contravention**, of a **load settlement rule** the **ISO** must refer the matter to the **Commission**.

Subject to provisions in the **Act**, in circumstances where a **market participant** fails to pay an **ISO fee**, the **ISO** may refer the matter to the **Commission**.

Referrals made in accordance with **rule 12.5.3** will be done on a confidential basis and will include **confidential information** obtained pursuant to **rules 12.2.3, 12.3.2 and 12.4**. The **ISO** will notify the **market participant** when a matter is referred to the **Commission** in accordance with this **rule**.

### 12.5.4 Reports to the Commission

In accordance with rules made by the **Commission**, to the extent that the **ISO** conducts an investigation regarding compliance with **load settlement rules**, at the conclusion of the investigation, the **ISO** will submit a written report to the **Commission** detailing:

- a) the original complaint reference;
- b) a summary of the investigation carried out;
- c) a list of requests for information from **market participants**;

- d) the findings resulting from the investigation; and
- e) any recommendation arising from the investigation or findings.

Written reports prepared by the **ISO** in accordance with this **rule 12.5.4** will only be provided by the **ISO** to the **Commission**, the **market participant** that is the subject of the report, and the complainant regarding the issue (if any).

#### 12.5.5 Mitigating Factors

To the extent a **market participant's** failure to comply with **applicable rules and standards** is caused by any one or more of the following, the **market participant** will be considered by the **ISO** not to 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 no later than two **business days** 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 under the **Act**, applicable legislation, applicable regulations or by a regulatory authority with jurisdiction;
- e) Actions or inactions in response to a **directive** made by the **system controller**.

#### 12.5.6 Recommendations of the ISO

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**, 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**.

Nothing in the **ISO rules** shall prevent the **ISO** from making a recommendation to the **Market Surveillance Administrator** or the **Commission** to take actions consistent with provisions of the **Act** or the *Alberta Utilities Commission Act*. This would include, but not be limited to circumstances where the **ISO** has recommended that a **market participant** undergo appropriate additional training or education.

## **12.6 Administration**

### **12.6.1 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** may modify the above time schedules in order to accommodate any unique circumstances that may exist.

## 13. LONG TERM ADEQUACY

### 13.1 Purpose of Rule

The purpose of this **rule** is to describe the means by which the **ISO** will monitor and report on the **LTA** of the Alberta electric energy market and if the analysis indicates a potential **LTA** issue may develop, the **rules** will indicate what steps the **ISO** may take to address the issue and how any costs for **ISO** action will be recovered.

### 13.2 Long Term Adequacy Metrics

#### 13.2.1 Purpose of Rule

The purpose of this **rule** is to identify and describe the **LTA metrics** that will be created and published by the **ISO**. The **LTA metrics** are intended to provide information to stakeholders that will facilitate their assessments of **LTA**. The **LTA metrics** will also be used by the **ISO** to indicate if a potential **LTA** issue is developing.

#### 13.2.2 Long Term Adequacy Metrics and Reporting

- a) The **ISO** will establish, maintain and report on **LTA metrics** on a quarterly basis in accordance with this **rule** 13.2.2.
- b) The **ISO** will make publicly available the following information:
  - i) An Alberta electrical generation projects and retirements metric which is a non-confidential project list indicating such relevant information as the project name, the project proponents, the **MW** size of the project and the estimated year of project completion. The metric will identify the following:
    - generation projects under active construction, as determined by the **ISO**;
    - generation projects which have received or have applied for government permits or approvals to proceed from the **EUB**, **AUC** or other Alberta agencies or which have an **interconnection** application before the **ISO**;
    - generation projects which have been publicly announced and have an ongoing commitment to proceed, as determined by the **ISO**; and
    - existing **generating assets** which are known to be retiring as indicated by the public announcements of the **owners** of such **assets** or by other publicly available sources of information.

The **ISO** may provide additional public project information as required regarding the magnitude of the impact of a project on **LTA** and may identify potential impediments to the timely completion and interconnection of the projects if appropriate.

- ii) A forecast reserve margin metric. The reserve margin metric calculation methodology will:
- be a measure, expressed in percentage terms, representing the amount of generation capacity (at the time of system peak) that is in excess of the annual peak demand;
  - utilize **ISO** load forecasts;
  - utilize existing generation unit capacity information such as **maximum capability** and the new generation metric forecast capacity outlined in **rule 13.2.2 b) i)**;
  - adjust for “behind the fence” demand and generation capacity;
  - exclude wind and adjust for hydro available at the time of system peak; and
  - incorporate **interconnection** capacity.

The reserve margin metric will have a minimum five year forecast period and may reflect more than a single supply and demand scenario for the system.

- iii) A supply cushion metric which provides a two-year forecast of available daily generation capacity and peak demand both measured in **MW**. The supply cushion metric calculation methodology will:
- incorporate generation unit capacity information such as the **maximum capability of generating units**;
  - incorporate daily average planned **outages** and derates as reported by **pool participants** in their **outage** scheduling submissions as well as a nominal average **forced outage** rate;
  - adjust for “behind the fence” demand and generation capacity;
  - exclude wind and adjust for hydro available at the time of daily system peak;
  - exclude **interconnection** capacity; and
  - exclude existing generation that is contractually available but that does not participate in the energy market.

The supply cushion metric will illustrate the number, duration and magnitude of the forecast supply deficiencies on a deterministic basis. A deficiency of supply to demand does not mean a **supply shortfall** exists as there may be other resources such as wind or imports available to

meet demand. Any confidential information used in the metric is only shown in aggregate form.

- iv) A two year probability of supply adequacy shortfall (2YRPSAS) metric which provides a probabilistic assessment of an **AIES supply shortfall** over the next two years. The 2YRPSAS metric calculation methodology will:
- utilize **ISO** load forecasts;
  - utilize existing generation unit capacity information such as **maximum capability** and the new generation metric forecast capacity outlined in **rule 13.2.2 b) i)**;
  - incorporate hourly planned **outages** and derates as reported by **pool participants** in their **outage** scheduling submissions;
  - incorporate **interconnection** capacity estimates;
  - utilize a distribution of outcomes for the following inputs:
    - intermittent or energy limited resources (such as wind and hydro power)
    - cogeneration **asset's** net to grid production
    - **forced outages**

The 2YRPSAS metric provides information on potential energy **supply shortfall** events during the two year period in terms of expected number of hours of involuntary curtailments, largest expected energy **supply shortfall** hour in **MW**, and expected total **MWh** not served.

- c) The **ISO** may establish other metrics deemed appropriate for the assessment of **LTA** in Alberta. The other metrics will not necessarily be added to the list in **rule 13.2.2 b)** or published in the quarterly report but would be used to assist the **ISO** in fulfilling its duties under this **rule 13** and under the **EUA**.
- d) The **ISO** will update the **LTA metric** methodology as appropriate. Without restricting the foregoing, the methodology will:
- i) cover the key elements which directly or indirectly measure **LTA**;
  - ii) be relatively simple to understand and promote understanding of the energy market;
  - iii) to the extent possible, be based on publicly available and verifiable information; and
  - iv) provide an outlook on **LTA**.

### 13.3 Long Term Adequacy Threshold Determination and Use

#### 13.3.1 Purpose of Rule

The purpose of the **rule** is to identify a **LTA threshold** based on the 2YRPSAS metric as per in **rule** 13.2.2 b) iv). The **LTA threshold** if exceeded will indicate that there is a potentially unacceptable likelihood of involuntary load curtailments in a subsequent two year period.

#### 13.3.2 Long Term Adequacy Threshold Determination and Use

- a) The **ISO** will establish a **LTA threshold** appropriate for the 2YRPSAS model as per in **rule** 13.2.2 b) iv). Initially, the **LTA threshold** will be an expected total of 1600 **MWh** not served in a two year period. The expected total **MWh** not served represents the cumulative total of **MW** of demand not served during each hour of all **supply shortfall** events modelled during the two year period.
- b) Using the 2YRPSAS metric, the **ISO** will estimate on a quarterly basis the expected total **MWh** not served in a subsequent two year period. If the estimated total **MWh** not served exceeds the **LTA threshold** established at the time, the **ISO** will undertake further studies to verify the likely cause, magnitude and timing of the potential **adequacy** issue. If the **ISO** deems that the potential **adequacy** issue requires preventative action, the **ISO** may proceed to design and procure the **LTA threshold actions** in accordance with **rule** 13.4 or take other similar effective actions that may be available at that time.
- c) The **ISO** will ensure that the **LTA threshold** is reviewed and appropriately updated when there are significant changes to the 2YRPSAS model as per in **rule** 13.2.2 b) iv). The **ISO** will also update the **LTA threshold** from time to time when there are significant changes to the system **MW** demand level, generation mix, **interconnection** capability or other major components of the system.

### 13.4 Long Term Adequacy Threshold Actions

#### 13.4.1 Purpose of Rule

The purpose of the **rule** is to identify a set of **LTA** measures the **ISO** may choose to implement to remedy an actual or impending **LTA** issue, to provide criteria for the use of the **LTA** measures and to establish how any costs for **ISO** action will be recovered.

### 13.4.2 Long Term Adequacy Threshold Actions

- a) In the event that the **LTA threshold** is exceeded as per **rule 13.3.2** or the **ISO** deems that a potential **adequacy** issue requires preventative action, the **ISO** may procure the following three **LTA threshold actions**:
  - i) Load Shed Service - the **ISO** would contract with **pool participants** for the right to curtail load in certain circumstances and under specific terms and conditions.
  - ii) Self Supply and Back-Up Generation - the **ISO** would contract with the **owners** of self-supply and back-up **generating units** for the ability to call on such **generating units** to provide energy production to the system. The contracted **generating units** would normally only produce energy solely for use at the generation site, or would normally be available to provide back-up when there is an outage at the generation site and would not otherwise have been available to participate in the energy market.
  - iii) Emergency Portable Generation - the **ISO** would contract with the **owners** of emergency portable **generating units** for the ability to call on such **generating units** to provide energy production to the system. Emergency portable **generating units** are portable units that are not currently located in Alberta but which can be **interconnected** on short notice if a suitable site is available.

### 13.4.3 Procurement and Use of Long Term Adequacy Threshold Actions

- a) The **ISO** will design and procure the **LTA threshold actions** using established **ISO** procurement procedures.
- b) The **ISO** will use contracted **LTA threshold actions** service as part of **ISO Operating Policies and Procedures** to avoid involuntary curtailments.
- c) Where possible and practical, the **ISO** will design the **LTA threshold actions** in a manner that will encourage competition between such **LTA threshold actions** to provide the required level of service.
- d) **Generating unit** capacity that is under contract to provide **LTA threshold actions** service will not be eligible to offer energy into the energy market.

### 13.4.4 Recovery of Long Term Adequacy Threshold Actions Costs

- a) If **LTA threshold actions** are procured by the **ISO**, the **ISO** will establish a methodology and institute a charge to load that will result in the recovery of the costs of **LTA threshold actions**.
- b) The charge to load will be primarily directed to the **pool participants** who consume energy during higher priced hours as they are the ones who benefit from the **LTA threshold actions** being in place.