

## Draft Version

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### Terms and definitions to be amended for use in the Energy Market ISO rules:

“**acceptable operational reason**” means, any 1 or more of the following:

- (i) a circumstance related to the operation of a generating **source asset** or load **sink asset** which if it operated could reasonably be expected to affect the safety of the asset, the environment, personnel working at the asset or the public;
- (ii) re-positioning a generating **source asset** or load **sink asset**, within the energy market due to the need to meet a **dispatch** given to that asset from the **ISO** to serve the stand-by **operating reserves** market;
- (iii) re-positioning a generating **source asset** or load **sink asset** within the energy market to manage physical or operational constraints associated with the asset;
- (iv) re-positioning a **pool asset** that is an import asset or an export asset within the energy market if all or a portion of the requested transmission service cannot be procured, or the transmission service is curtailed by any transmission service provider other than the **ISO**;
- (v) a circumstance directly resulting in the generating **source asset** or load **sink asset** not being capable of operation, which circumstance was solely caused by an occurrence of **force majeure**;
- (vi) re-positioning a generating **source asset** for electric energy that is:
  - (a) produced on the property of which a **person** is the owner or a tenant; and
  - (b) consumed solely by that **person** and solely on that property;
- (vii) re-positioning a generating **source asset** or load **sink asset** within the energy market in response to:
  - (a) a distribution constraint that causes a limitation to the normal economic merit operation of the generating **source asset** or load **sink asset**, or to the flow of electrical energy from the generating **source asset** or load **sink asset** from one part of the **electric distribution system** or an electric system within the service area of the City of Medicine Hat to any other part of either of those systems; or
  - (b) a transmission outage that results in the generating **source asset** being electrically disconnected from the **transmission system** or an electric system within the service area of the City of Medicine Hat; or
- (viii) re-positioning a load **sink asset** within the energy market to reflect a **capacity commitment**.

“**adequacy**” means the ability of the **interconnected electric system** to supply the aggregate electrical demand and energy requirements of **market participants** receiving **system access service**, taking into account **delist outages**, **planned outages** and reasonably expected **delayed forced outages** and **automatic forced outages** of **system elements**.

“**allowable dispatch variance**” means:

- (i) for each generating **source asset**, other than a wind or solar **aggregated generating facility**, as measured from the **dispatch** quantity plus or minus the **dispatch tolerance**, in MW;
- (ii) for each wind or solar **aggregated generating facility** :

- i. the **dispatch tolerance** greater than the **dispatch** quantity, in MW, and the **dispatch tolerance** less than the potential **real power** capability, in MW, if the potential **real power** capability is less than the **dispatch** quantity;
  - or
  - b) plus or minus the **dispatch tolerance** from the **dispatch** quantity, in MW, if the potential **real power** capability is greater than or equal to the **dispatch** quantity;
- (iii) for a load **sink asset** providing a **firm consumption level**:
- a) that receives a **dispatch** for 0 MW, no limit on consumption; or
  - b) that receives a **dispatch** for greater than 0 MW, a range between:
    - i. the qualified baseline declared in accordance with Section 206.1, *Qualification of Capacity* or calculated in accordance with Section 206.3 of the **ISO rules, Uniform Capacity Value Determination**, as applicable, less the **dispatch** quantity plus the **dispatch tolerance**, in MW; and
    - ii. 0 MW;
- (iv) for a load **sink asset** providing **guaranteed load reduction**:
- a) that receives a **dispatch** for 0 MW, an amount no less than the **available capability** in MW; or
  - b) that receives a **dispatch** that is greater than 0 MW, a range between:
    - i. the instantaneous amount of **real power** of the **pool asset** at the time of the **dispatch** plus the change in **dispatch** quantity plus the **dispatch tolerance** in MW; and
    - ii. the **available capability** less the **dispatch** quantity, in MW.

“**available capability**” means:

- (i) for a generating **source asset** or load **sink asset**, the maximum MW that the **source asset** or load **sink asset** is physically capable of providing; or
- (ii) for an import **source asset**, the MW that the **pool participant** submits in an **offer**.

“**bid**” means:

- (i) in respect of a **pool asset** in a **settlement interval**, a **pool participant** submission to purchase:
  - a) electric energy and includes all of the **operating blocks** the **pool participant** uses for that submission; or
  - b) **operating reserves** from applicable Alberta markets; or
- (ii) in respect of an asset in a **rebalancing auction**, a **capacity market participant’s** submission to buy back all or a portion of its **capacity commitment**, and includes all of the **capacity blocks** the **capacity market participant** uses for that submission.

“**constraint effective factor**” means a ratio, based on the results of load flow studies conducted by the **ISO**, of the change in the flow of electric energy through a **transmission market constraint** to a change in energy production, energy consumption or an electric energy flow across an **interconnection**.

“**downstream constraint side**” means, in relation to the transmission elements that comprise the **transmission market constraint**, those elements of the **interconnected electric system** more proximate to the load or consumption side of the **transmission market constraint** than to the supply side of the **transmission market constraint**.

“**flexible block**” means:

- (i) an **operating block** in an energy **offer** or **bid** for which the **ISO** may issue a **dispatch** for full or partial quantity in the **operating block**; or
- (ii) a **capacity block** in an **offer** or **bid** for **capacity** that the **ISO** may partially or fully clear in a **base auction** or **rebalancing auction**.

“**incremental generation costs**” means, where the **ISO** has issued a **directive**:

- (i) for energy from a **long lead time asset**; or
- (ii) to cancel, in the case of a generating **source asset**, any 1 or more of a **planned outage**, a **delist outage**, a **delayed forced outage** or an **automatic forced outage**, requiring that a **long lead time asset** or a generating **source asset** be made available to, or to actually, operate, exchange electric energy or provide **ancillary services**, those reasonable costs incurred that are reasonably attributed to compliance with the **directive** and which would have been avoided but for the **directive**, and include:
  - (iii) in the case of compliance with a **directive** for energy from a **long lead time asset**:
    - (a) the actual costs of all variable charges from Rate STS of the **ISO tariff**, including any applicable **loss factors** charge or credit;
    - (b) variable operational and maintenance charges;
    - (c) fuel costs to start and run the **long lead time asset** or the generating **source asset**; and
    - (d) other related reasonable costs;
  - (iv) in the case of compliance with a **directive** canceling a **planned outage**, a **delist outage**, a **delayed forced outage** or an **automatic forced outage** for a generating **source asset**, those costs incurred:
    - (a) to plan, prepare for and execute the outage, from initial planning and inception to the date of the **directive** canceling the outage;
    - (b) subsequent to the date of the **directive** cancelling the outage and in accordance with **good electric industry practice**;
    - (c) for re-scheduling personnel, equipment and other materials required for the performance of the work originally to be completed or performed pursuant to the cancelled outage;
    - (d) in the form of verified damages or liquidated claims dollar amounts or claimed by third parties pursuant or related to:
      - (A) any third party contract terms and conditions for performing repair, retrofit, upgrade or maintenance work on or directly related to the **source asset** during the outage, which third party work has been cancelled or otherwise cannot be performed due to the outage cancellation; and
      - (B) any third party market or hedging transactions directly related to participation in the energy or **ancillary services** market by the **source asset** which is the subject of the **directive**; and
    - (e) as other related reasonable costs.

“**inflexible block**” means:

- (i) an **operating block** in an energy **offer** or **bid** for which the **ISO** may only issue a **dispatch** for the full quantity in the **operating block**; or
- (ii) a **capacity block** in an **offer** or **bid** for **capacity** that the **ISO** may not partially clear in a **base auction** or **rebalancing auction**.

“**maximum capability**” means:

- (i) for a **generating unit** or **aggregated generating facility**, the maximum MW that it is physically capable of providing under optimal operating conditions while complying with all applicable **ISO rules** and terms and conditions of the **ISO tariff**;
- (ii) for a **source asset** that is an import asset, the maximum MW that it is permitted to import into Alberta while complying with all applicable **ISO rules** and terms and conditions of the **ISO tariff**;  
or
- (iii) for a load **sink asset**, the **capacity** that a load **sink asset** is capable of providing during an **obligation period**, while complying with all applicable **ISO rules** and terms and conditions of the **ISO tariff**

“**offer**” means:

- (i) in respect of a **pool asset** in a **settlement interval**, a **pool participant** submission to sell:
  - a) electric energy or **dispatch down service** and includes all of the **operating blocks** the **pool participant** uses for that submission, as may be updated to reflect Section 203.5 of the **ISO rules**, *Energy Market Mitigation*;
  - b) **dispatch down service** and includes all of the **operating blocks** the **pool participant** uses for that submission; or
  - b) **operating reserves** to applicable Alberta markets;
- or
- (ii) in respect of an asset in a **base auction** or **rebalancing auction**, a **capacity market participant’s** submission to sell **uniform capacity value** and includes all of the **capacity blocks** the **capacity market participant** uses for that submission;

“**offer control information**” means the identity of any **person** who has ultimate control and determination of the price and quantity of **offers** or **bids** as applicable.

“**operational deviation**” means:

- (i) a generating **source asset** or load **sink asset** is unable to comply with the ramping requirements set out in Section 203.4 of the **ISO rules**, *Delivery Requirements for Energy*; or
- (ii) a generating **source asset** or load **sink asset** operating in **steady state** varies outside its **allowable dispatch variance**, due to **force majeure** or any other circumstances related to the operation of the generating **source asset** or load **sink asset** which could reasonably be expected to affect the **available capability** or safety of the generating **source asset**, load **sink asset**, third party facilities, contracts or arrangements, the environment, personnel working at the generating **source asset**, load **sink asset** or the public.

“**planned outage**” means the full or partial unavailability of a facility which is anticipated as part of a **legal owner’s** regular maintenance, including for the purposes of construction, **commissioning** or testing, and occurs as a result of a deliberate manual action, but excludes a **delist outage**.

“**ramp rate**” means the rate at which a **pool asset** is able to change its level of production or consumption, in MW per minute, in response to a **dispatch** or **directive**.

“**ramping**” means changing the production of a generating **source asset** or consumption of a load **sink asset**, and begins at the effective time specified in the most current **dispatch** and continues until the time

the generating **source asset** or load **sink asset** has reached the MW specified in the **dispatch**, plus or minus the **allowable dispatch variance** for that generating **source asset** or load **sink asset**.

“**steady state**” means the state of operation that begins the first **10 minute clock period** following the period in which a generating **source asset**’s output or a load **sink asset**’s consumption has reached the MW specified in an energy market **dispatch**, plus or minus the **allowable dispatch variance** for that generating **source asset** or load **sink asset**.

“**transmission constraint rebalancing**” means the delivery of energy from a **pool asset** on the **downstream constraint side** of a **transmission market constraint** in response to that portion of an energy market **dispatch** it receives to restore the energy balance on the **interconnected electric system** due to measures taken to mitigate a **transmission market constraint**.

“**upstream constraint side**” means, in relation to the transmission elements that comprise the **transmission market constraint**, those elements of the **interconnected electric system** more proximate to the supply side of the **transmission market constraint** than to the load or consumption side of the **transmission market constraint**.

#### Terms and definitions to be added for use in the Energy Market ISO rules:

“**delist outage**” means a derate or an outage for a **source asset** or load **sink asset** associated with a temporary delist referred to in Section 206.9 of the **ISO rules**, *Delisting*.

“**dispatch tolerance**” means:

- (i) 1 MW for each **pool asset** with a **maximum capability** less than 5 MW;
- (ii) 5 MW for each **pool asset** with a **maximum capability** greater than or equal to 5 MW and less than or equal to 200 MW; or
- (iii) 10 MW for each **pool asset** with a **maximum capability** greater than 200 MW.

“**supply obligation**” means a **person**’s fixed price physical or financial obligations in a **settlement interval**, in MW, that have the net effect of reducing the **person**’s exposure to the **pool price** by the amount of the obligation in that **settlement interval**.

“**transmission market constraint**” means an exceedance of a reliability limit on 1 or more elements of the **transmission system**, where:

- (i) the **ISO** must take action to prevent or mitigate the exceedance; and
- (ii) the action results in an impact to the normal economic merit operation of generation, load, or **interchange transactions**,

excluding a circumstance where the capability limits referenced in Section 303.2 of the **ISO rules**, *Available Transfer Capability* are exceeded.

**Terms and definitions to be removed for use in the Energy Market ISO rules:**

**“transmission constraint”** means a limitation imposed by one (1) or more transmission elements to normal economic merit operation of generation, load and **interchange transactions** or to the flow of electrical energy from one part of the **interconnected electric system** to the other.

[replaced with **“transmission market constraint”**]

**“long term adequacy (LTA)”** means the ability of future electric system energy supply to meet expected aggregate electrical demand requirements over several years.

[replaced with **resource adequacy standard**]