ISO Rules

Part 300 System Reliability and Operations Division 302 Transmission Constraint Management Section 302.1 Real Time Transmission Constraint Management



Applicability

- Section 302.1 applies to:
 - (a) a market participant; and
 - (b) the **ISO**.

Requirements

Real Time Transmission Constraint Mitigation

- **2(1)** Subject to subsection 3, the **ISO** must comply with the following procedures in the following sequence to mitigate a **transmission constraint** in the present, real time:
 - (a) taking into account the **constraint effective factors**, determine the **pool assets** that would be effective in mitigating the **transmission constraint** and apply the appropriate procedure set out in this subsection 2(1) to those effective **pool assets**;
 - ensure that any pool 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 **pool 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 pool assets that are effective in mitigating the transmission constraint at the downstream constraint side;
 - (f) issue **directives** to curtail any **pool 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 **pool asset** effective in mitigating the **transmission constraint** being curtailed first, followed by the **pool 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**;

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- (ii) if there is a need to curtail two (2) or more such **pool assets** having equally priced **offers**, then the **ISO** must issue **directives** to the **pool 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 **pool 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:
 - 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 2(1):
 - (a) the ISO must issue dispatches for dispatch down service as appropriate in accordance with section 204.2 of the ISO rules, Issuing Dispatches for Dispatch Down Service;
 - (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 pool assets 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 2(1) that involve **pool asset** or **load** curtailment, if the **pool 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 2(1) to manage the **transmission constraint**.

Additional Real Time Constraint Management Procedures

- As the circumstances may warrant, the **ISO** may take into account the following alternative or complementary procedures to mitigate any present, real time **transmission constraint**:
 - (a) if the result of following the procedures set out in subsection 2(1)(f)(i) will be to curtail any pool 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 pool asset to above or at the minimum stable generation level of that pool asset;
 - (b) 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 2(1) if those steps are substantially consistent with **good electric industry operating practice**

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- and the duties of the **ISO** under the **Act** to direct the safe, reliable and economic operation of the **interconnected electric system**;
- (c) the abnormal conditions referred to in subsection 3(b) 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;
- (d) in mitigating a transmission constraint, the ISO must follow the procedural sequence set out in subsection 2(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;
- (e) if the **ISO** alters the procedural sequence as set out in subsection 2(1), or takes alternate mitigating actions because of the circumstances referred to in subsection 3(b) or 3(d) 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 2(1).

Revision History

Effective Description 2012-03-26 Initial Release

2013-01-08 Previously defined terms have been un-defined and the words have been un-

bolded.

Reference to section 6.3.6.3 *Determining Dispatch Down Service Dispatch Quantity* has been replaced with section 204.2 *Issuing Dispatches for*

Dispatch Down Service.