

AESO Stakeholder Workshop

To identify potential improvements to the current
intertie transfer capability limits posting process

September 1, 2015

Agenda

Agenda Item	Timing
Objective, scope and what we have heard so far	10 minutes
Overview of current process	30 minutes
Issues and opportunities discussion What are the concerns with sufficiency of information?	45 minutes
Break	15 minutes
Issues and opportunities discussion continued What improvements can be identified?	45 minutes
Next Steps	5 minutes

- Objective
 - To identify potential improvements to the current inertia transfer capability limits posting process
- In Scope
 - Understand the AESO's current inertia transfer capability limits posting process, its intent and limitations
 - Gather stakeholder concerns related to the current process
 - Gather stakeholder proposals to improve the inertia transfer capability limits posting process
- Out of Scope
 - Rule 203.6 including calculation and allocation methodology
 - Inertia restoration and related topics including work currently being done to alleviate limiting factors such as CR/LSSi availability

Stakeholder Feedback in Scope for Today's Discussion

- *“Changes to ATC Limits of the BC Intertie and the BC-MATL Flow Gate (Combined) limits within the price restatement period (T-2)”*
- *“Provide detailed description of the de-rates that affect ATC”*
- *“Provide after the fact import and export ATC values for historical and archival purposes”*
- *“Transmission System Outage Transparency” “system conditions”*
- *“Implications of AESO’s daily price forecast on ATC Report”*
- *“Outage coordination and the ATC Report”*
- *“Background on the AESO process for posting the intertie ATC (broad steps and who is involved)”*
- *“Accessibility of data and process information for market participants to run their own real-time studies”*

Reporting Requirements under Rule 203.6

- Subsection 2 (1) requires the AESO to determine and post the Alberta interchange capability, the import-export capability of all individual transfer paths (BC,MATL,Sask) and the combined BC/MATL import-export capability
- Subsection 4 (3) states that the ISO must post on the AESO website as soon as is reasonably practical any change to the import available transfer capability or the export available transfer capability for an individual transfer path
- Subsection 10 (3) contains a specific requirement as to when limits will be posted before the delivery hour (approximately 85 minutes prior to a settlement interval)

Are there any questions on objective and scope?

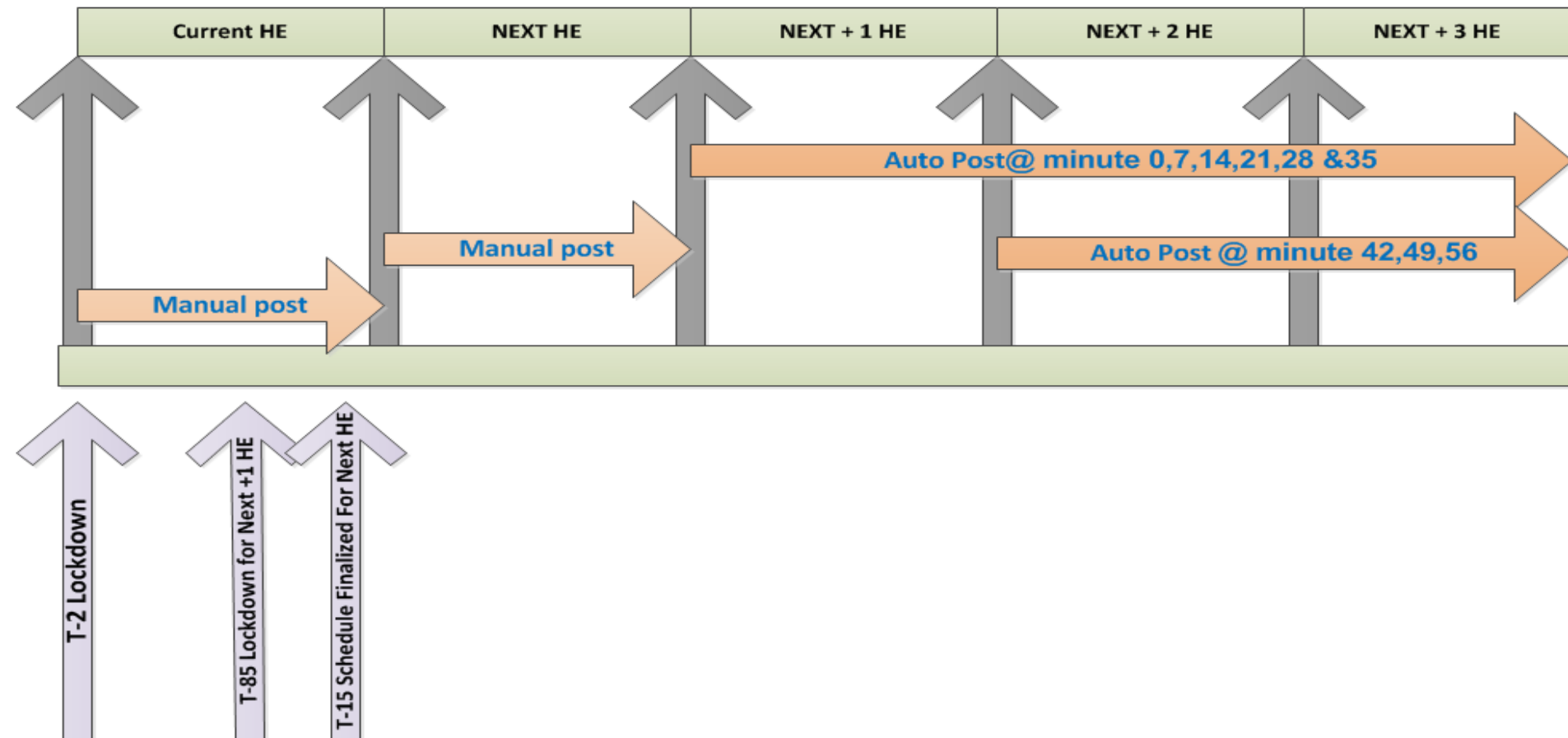


Overview of Current Process

- Posting horizons
- High-level timeline
- Day-ahead posting
- Real-time auto posting
- Manual posting and over-rides
- Example scenario
- Etag “Cutlist” example

- Forward looking posting horizon
 - AESO's outage coordination department is responsible for this task
 - Prior to 18:00 – AESO will post “Next day” to 13 months
 - After 18:00 – AESO will post “Next + 1 day” to 13 months
- Real-time posting horizon
 - AESO's system controller is responsible for this task
 - Prior to 18:00 – “Now” to end of current day
 - After 18:00 – “Now” to end of next day
- Historical posting horizon
 - After current hour

High-level Timeline



- Our application (MARGO) is used for both day-ahead and real-time horizons
- The day-ahead task is performed by our outage coordination group
- Prior to 18:00, they can post TTC/TRM/ATC data for “Next day” out to 13 months
- After 18:00, the responsibility for next day posting is programmatically transitioned to the system controller
- The application considers:
 - Planned transmission outages
 - Long-term forecast load
 - Default LSSi
 - Default Most Severe Single Contingency

- Auto posting occurs at minute 0, 7, 14, 21, 28, 35, 42, 49 & 56 of every hour
 - At minute 0, 7, 14, 21, 28 and 35
 - Prior to 18:00 – Auto post is for “Next + **1**” hour to end of current day
 - After 18:00 – Auto post is for “Next + **1**” hour to end of next day
 - At minute 42, 49 and 56
 - Prior to 18:00 – Auto post is for “Next + **2**” hours to end of current day
 - After 18:00 – Auto post is for “Next + **2**” hours to end of next day

Manual Posting and Over-rides

- Performed by the system controller
- An over-ride may be required due to, but not limited to:
 - TCM or multiple transmission elements out of service
 - Supply shortfall
 - Insufficient contingency reserves or LSSi availability
 - BC transmission configuration
 - Limited Market Operation
- If an over-ride is required, it can apply to:
 - Current hour
 - Requires immediate mitigation by curtailing e-tags
 - Next hour
 - Requires mitigation after T-15 by curtailing Etags for next hour
 - Next + 1 hour to end of real-time horizon

Example Scenario

- Within the current hour, ATC is reduced for TCM mitigation on the BC/MT path
- The system controller (SC) will need to enter an over-ride within our MARGO application
- The change to TRM is sent to our e-tag system
- Due to reduction of ATC, our Etag system will generate “cut list”
- The SC will issue curtailments to effective etags based on the methodology as identified in section 11 of ID#2011-001R
- Initiating curtailment is a trigger for our Etag system to return a data file containing the projected “Scheduling Availability” for all paths
- MARGO uses the Scheduling Availability data to calculate an allocation if applicable
- The SC will post new data to the AESO ATC allocation report

Are there any questions on the current process?



- Ground Rules
 - Share all relevant information
 - Everyone has a chance to speak without interruption
 - No idea is a bad idea, and all ideas and opinions will be respected
 - All ideas and opinions will be encouraged to survive the “Relevant Test”
 - You’ve stated the reasoning behind the idea/opinion
 - You’ve given a specific example
 - You’ve shared the intention or benefit to you
 - All participants are invited to ask questions throughout the discussion
 - Ideas will be captured and documented

- In terms of providing the relevant information at the right time
 - Content and assumptions taken into account and provided at the appropriate time
 - Forward looking horizon
 - Real-time horizon
 - Historical posting horizon
- Issues
 - What are the concerns with sufficiency of information?
- Opportunities
 - What improvements can be identified?

Next Steps

- Seek clarification/correction on what has been captured
- Circulate discussion points in summary form
- Provide update on potential next steps
 - For further information, please contact Dilhan Rodrigo at dilhan.rodrido@aeso.ca

Thank you