

ADDENDUM TO MOSES SOUTH STABILITY LIMIT ANALYSIS FOR ALL LINES IN-SERVICE AND OUTAGE CONDITIONS (MS-24)

Raj Dontireddy

Manager, Operations Engineering (NYISO)

Operating Committee (OC):

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Topics

- Purpose
- Proposed Changes in Stability Limits
- Next Steps

Purpose

- **To analyze the impact of N-2 and N-3 scenarios inside the North Country/Area D pocket:**
 - 765 kV path (the Hydro Quebec HVDC line to Chateauguay 765kV, the Chateauguay – Massena (7040) 765kV line, and the Massena – Marcy (MSU1) 765kV Line;
 - 230 kV path (MAP 1 and MAP2 from Moses – Adirondack – Porter 230kV); and
 - St Lawrence PARs path (the IESO L33 and L34 PARs from St. Lawrence – Moses 230 kV)
- **Existing all lines in service and outage condition limits not explicitly stated in this report have been confirmed and remain in effect**

Proposed Additions to Moses South Stability Limits

Current Moses South Interface Definition

Name	Line ID	Voltage (kV)
* Massena-Marcy	MSU1	765
* Moses-Adirondack	MA1	230
* Moses-Adirondack	MA2	230
* Dennison-Norfolk	4	115
* Dennison-Sandstone	5	115
* Alcoa-N. Ogdensburg	13	115
Parishville-Colton*	3	115

Moses South Stability Contingencies (1 - 18)

#	ID	Description
1	NYP01-SPS41C	3PH-NC @MARCY765 L/O MASSENA-MARCY (MSU1) W/REJ
2	NYP02	3PH-NC @MOSES230 L/O MOSES-ADIRONDACK (MA2) W/NOREJ.
3	NYP03	LLG @MOSES230 L/O MOSES-ADIRONDACK (MA1 & MA2)
4	NYP04	3PH-NC @MOSES230 L/O MASSENA-MOSES765230 (MMS1)
5	NYP05	3PH-NC@MASSENA765 -L/O MASSENA-MOSES 765/230 MMS1
6	NYP06	SLG-STK MOSES230 BKR2108 L/O MASSENA-MOSES230(MMS2 BKUP_CLR AT4) W/NOREJ
7	NYP07	SLG-STK@MASSENA765 - L/O MASSENA-MOSES 765/230 MMS-1
8	NYP08	SLG-STK @MOSES230 BKR2408 L/O MOSES-ADIRONDACK (MA2 BKUP_CLR MW1)) W/NOREJ
9	NYP09	3PH-NC @MASSENA765 L/O MASSENA-MARCY (MSU1) W/REJ
10	NYP10	SLG-STK @WILLIS230 BKR2108 L/O MOSES-WILLIS (MW2 BKUP_CLR WRY-2)
11	NYP13	LLG- @MOSES L/O MOSES-MASSENA230 (MMS1 & MMS2) DCT
12	NYP150	LLG- @MOSES230 L/O MOSES-ST. LAWRENCE (L33P & L34P) PDCT W/NOREJ
13	CE03_AC-Sega	SLG-STK@EDIC345 (BKR935) - L/O EDIC-GORDON ROAD #14 / BKUP CLR FE1
14	CE07AR	LLG@MARCY/EDIC - L/O MARCY-COOPERS (UCC2-41) & EDIC-FRASER (EF24-40) DCT W/RCL
15	CE15	SLG-STK@MARCY345(BKR 3108) - L/O VOLNEY-MARCY (VU-19) / BKUP CLR#UE1-7
16	CE23	LLG@FRASER - L/O MARCY-COOPERS(UCC2-41)/EDIC-FRASER(EF24-40) DCT
17	CE23AR	LLG@FRASER - L/O MARCY-COOPERS(UCC2-41)/EDIC-FRASER(EF24-40) DCT W/RCL
18	CE99	SLG-STK@SCRIBA345 (BKR935) - L/O SCRIBA-VOLNEY 21 / BKUP CLR FITZ-SCRIBA #10

Proposed Additions to Moses South Stability Limits

Scenario	Moses South Stability Limit with Margin (MW)
MSU1&7040&HVDC & (L33 or L34) O/S	750
MSU1&7040&HVDC & (MAP1 or MAP2) O/S	500
MSU1&7040&HVDC & (L33 or L34) & (MAP1 or MAP2) O/S	500*
MSU1&7040&HVDC & MAP1 & MAP2 O/S	100
MSU1&7040&HVDC & MAP1 & MAP2 & (L33 or L34) O/S	100*
MSU1&7040&HVDC & R8105	750
MSU1&7040&HVDC & R8105 & (MAP1 or MAP 2) O/S	500
MSU1&7040&HVDC & R8105 & (L33 or L34) O/S	750*
MSU1&7040&HVDC & R8105 & DS 5 115 kV O/S	750*
MSU1&7040&HVDC & R8105 & NS 4 115 kV O/S	750*
MSU1&7040&HVDC & DS 5 115 kV O/S	750
MSU1&7040&HVDC & NS 4 115 kV O/S	750
L33 & L34 & (MAP1 or MAP2) O/S	2050*
L33 & L34 & (MAP1 or MAP2) & (MMS1 or MMS2) O/S	2050*
L33 & L34 & MAP1 & MAP2 O/S	1650*
MAP1&MAP2 O/S	2750*
MAP1&MAP2 & (L33 or L34) O/S	2550*
MAP1&MAP2 & (L33 or L34) & (MMS1 or MMS2) O/S	2450*

* More restrictive limits will control flows below these limits therefore these limits will not be implemented in the Energy Management System.

Implementation

- A new network model deployment is needed to implement these proposed limits
- The next software deployment is planned for August

Next Steps

Next Steps

- **Seeking Operating Committee (OC) Approval**

Our Mission & Vision



Mission

Ensure power system reliability and competitive markets for New York in a clean energy future



Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

Questions?