

IDC Regional Congestion Management Training Document 7/2008

CO-258: Flowgate Monitoring Display

Introduction / Background

The Flowgate Monitoring display is an enhancement to the IDC to give Operators a mechanism to more efficiently monitor flow on Flowgates. These displays can significantly increase situational awareness.

Implementation Details / New Features

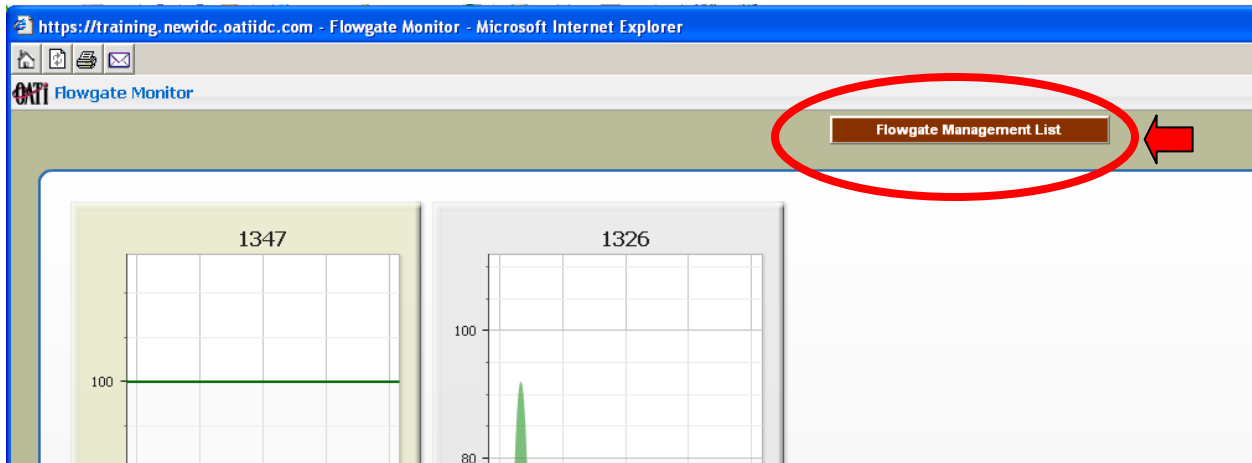
- 1) To access the Flowgate Monitoring feature, select *Flowgate Monitor* under the *TLR* drop down menu as shown below.

The screenshot shows the IDC Training System interface. The 'TLR' menu is open, and 'Flowgate Monitor' is selected, indicated by a red arrow. The main display area shows 'Active and Pending TLR' with a table of Matrix Calculation Times (CST) and a detailed table of flowgates.

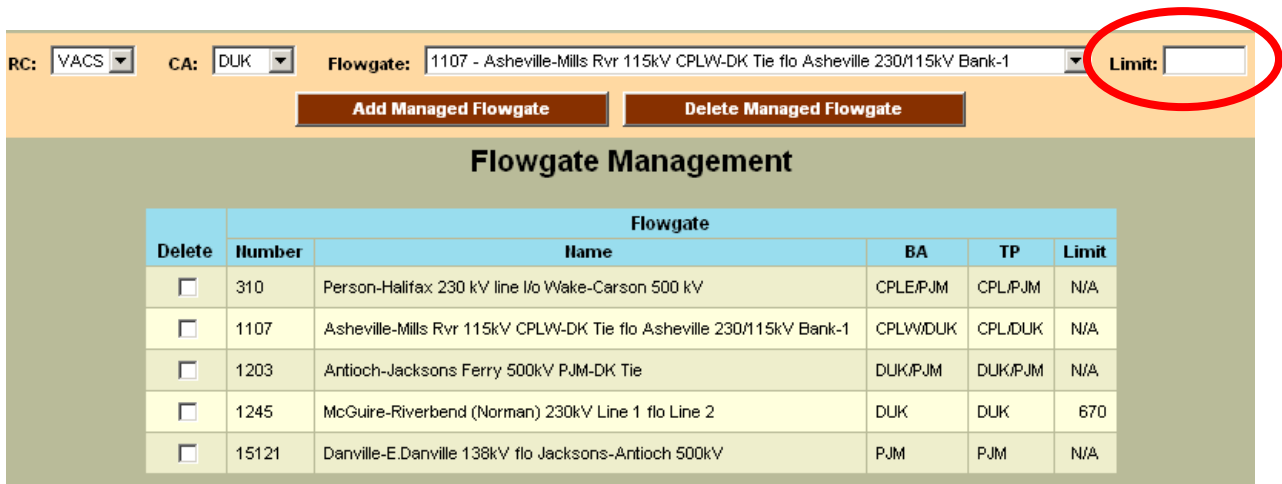
Matrix Calculation Times (CST)			
Full TDF Matrix	Market TDF Update	Full GSF Matrix	Last SDX Update
15:45:30	15:45:30	15:46:56	04/26 12:31:01

Action	RC	RC Ackn	Market	Number	Flowgate Name
[CMR] [HIST] [WTL] [MON]	TVA	None	MISO	2102	14HOPCO5 161 5BARKLEY 161 1
[CMR] [HIST] [WTL] [MON]	SOCO	None	N/A	1346	DanielSOCO-McKnight
[CMR] [NERC] [HIST] [WTL]	ICTE	None	N/A	1330	McAdams500-230 for loss of McAdams-Lakeover
[CMR] [HIST] [WTL] [MON]	VACS	None	N/A	1245	McGuire-Riverbend (Norman) 230kV Line 1 flo Line 2
[CMR] [NERC] [HIST] [WTL]	ICTE	None	N/A	1937	White Bluff-Sheridan 500 kV for the loss of Mabelvale-Sheridan 500 kV
[CMR] [NERC] [HIST] [WTL]	ICTE	None	N/A	1347	Wilbert-Livonia for loss of Webre-Wells
[CMR] [HIST] [WTL] [MON]	VACS	None	N/A	1111	Roxboro-Person H flo Roxboro-Person C 230
[CMR] [NERC] [HIST] [WTL]	ICTE	None	N/A	1330	McAdams500-230 for loss of McAdams-Lakeover
[CMR] [HIST] [WTL] [MON]	SWPP	None	SWPP	5203	HppValPitVal
[CMR] [HIST] [WTL] [MON]	MISO	None	MISO,PJM	3006	EAU CLAIRE-ARPIN 345 KV
[CMR] [HIST] [WTL] [MON]	MISO	None	MISO,SWPP	3167	St Francois - Lutesville 345
[CMR] [HIST] [WTL] [MON]	MISO	None	MISO,PJM	3009	Eau Claire-Arpin 345 (flo) Wempletown-Rockdale 345
[CMR] [HIST] [WTL] [MON]	ONT	None	MISO,PJM	7009	ONT - FRONTIER

- 2) To add flowgates to be monitored click on the *Flowgate Management List* button in the **Flowgate Monitor** display as shown below.



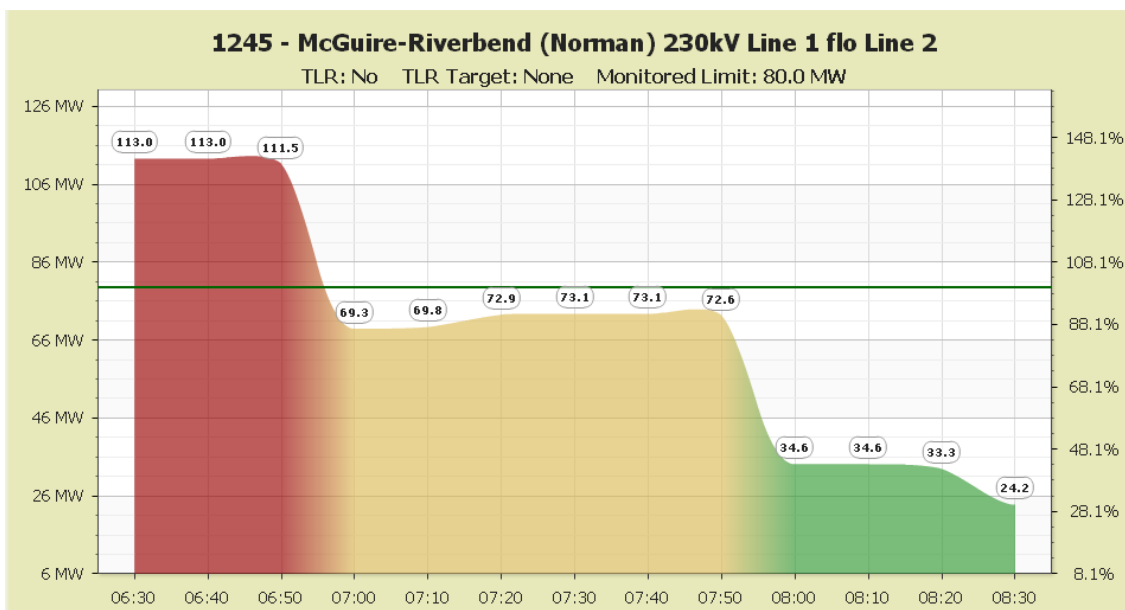
- 3) The **Flowgate Monitor Management** screen shown below is where Flowgates are added and deleted from the monitor list. Adding and deleting Flowgates is very intuitive.
- 4) If you want your Flowgate monitor graph to contain a horizontal line representing a limit, type the limit value into the field shown below before poking the *Add Managed Flowgate* button. This limit value has no impact on TLR activity – it exists only as a visual aid in the Flowgate Monitor graph.
- 5) Once you have finished adding and deleting Flowgates, close the **Flowgate Monitor Management** screen.



- 6) The **Flowgate Monitor** display is refreshed every five minutes, so it may take up to five minutes for new Flowgate selections so show up in the display.
- 7) Flowgates that are in TLR will be added to the list of monitored Flowgates automatically.
- 8) Up to 25 flowgates can be monitored at once (in 5 rows and 5 columns).

Flowgate Graphs

- 9) The flow that is displayed is the tag and market MW impact on the flowgate in question. The values correspond to all tag and market flow contribution to 0% TDF.
- 10) The green horizontal line is the user defined limit
- 11) The red horizontal line appears when the Flowgate is in TLR (above Level 1) and represents the target flow for the current hour. Target flow = current flow minus relief required.
- 12) The color of the area under the curve is a function of how close the flow is to its limit. If a Flowgate is in TLR (above Level 1), the limit used for coloring is the Target Flow. If the Flowgate is not in TLR, the limit used for coloring is the user defined limit. The color is a gradient from yellow to red – from 80% of target and up. Green indicates that the flow is less than 80% of target.
- 13) Clicking on a Flowgate will bring up a more detailed view shown below.



- 14) The color of the graph borders describes the following:
 - a) A green border indicates that the Flowgate is in TLR Level 1
 - b) A red border indicates that the Flowgate is in TLR above Level 1
 - c) A neutral border indicates that the Flowgate is not in TLR

