IDC Regional Congestion Management Training Document

Contents:

A. CONTROL AREA RELIABILITY CAPS: CO-148

Introduction:

This Change Order Control Area Reliability Caps: CO-148 will allow the IDC software to recognize the difference between a TLR MW Cap and a Control Area or Transmission Provider MW Cap. All three of these are identified in the E-tag 1.7 specification as "Reliability Caps" that can be put on an E-tag transaction to hold the MW amount below the Scheduled amount on the original tag. Therefore it is necessary for the IDC to recognize the Control Area and Transmission Provider Caps to ensure the IDC does not try to load a transaction that a Control Area or Transmission needs reduced for Reliability Purposes.

The example below (Figure 1) shows a profile of a Transaction with an IDC and a Control Area Cap in place for the first hour of the transaction.

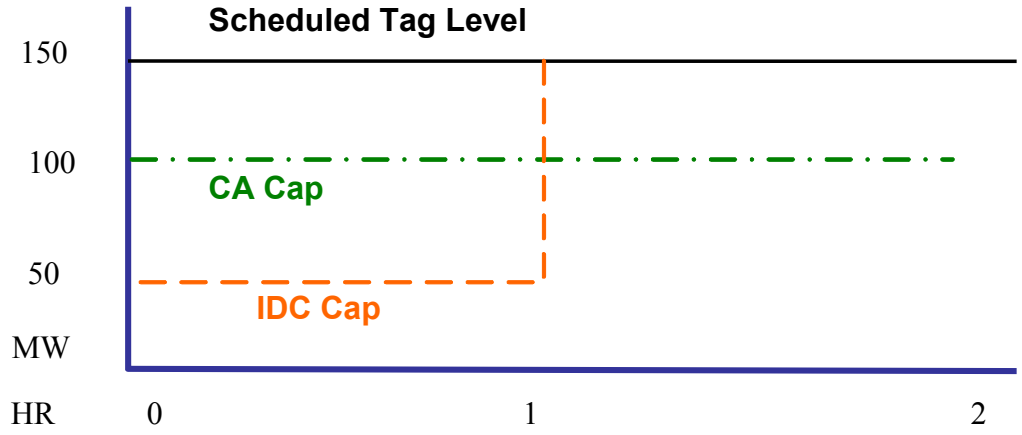


Figure 1- "Example of CA and IDC Cap on a Single Transaction"

In Hour 0 the TLR Issuance Curtailed the Tag to a LOWER value than the CA Cap (IDC Cap = 50). In this case the IDC would be controlling the Tag.

In Hour 1 the TLR was released and the Control Area Cap is now the most restrictive Cap on the transaction. The TLR will only RELOAD to the CA Cap of 100 MW in this example to respect the CA Cap in place.

In Hour 2 the CA Cap is released and the Transaction is allowed to go up to its Scheduled Value

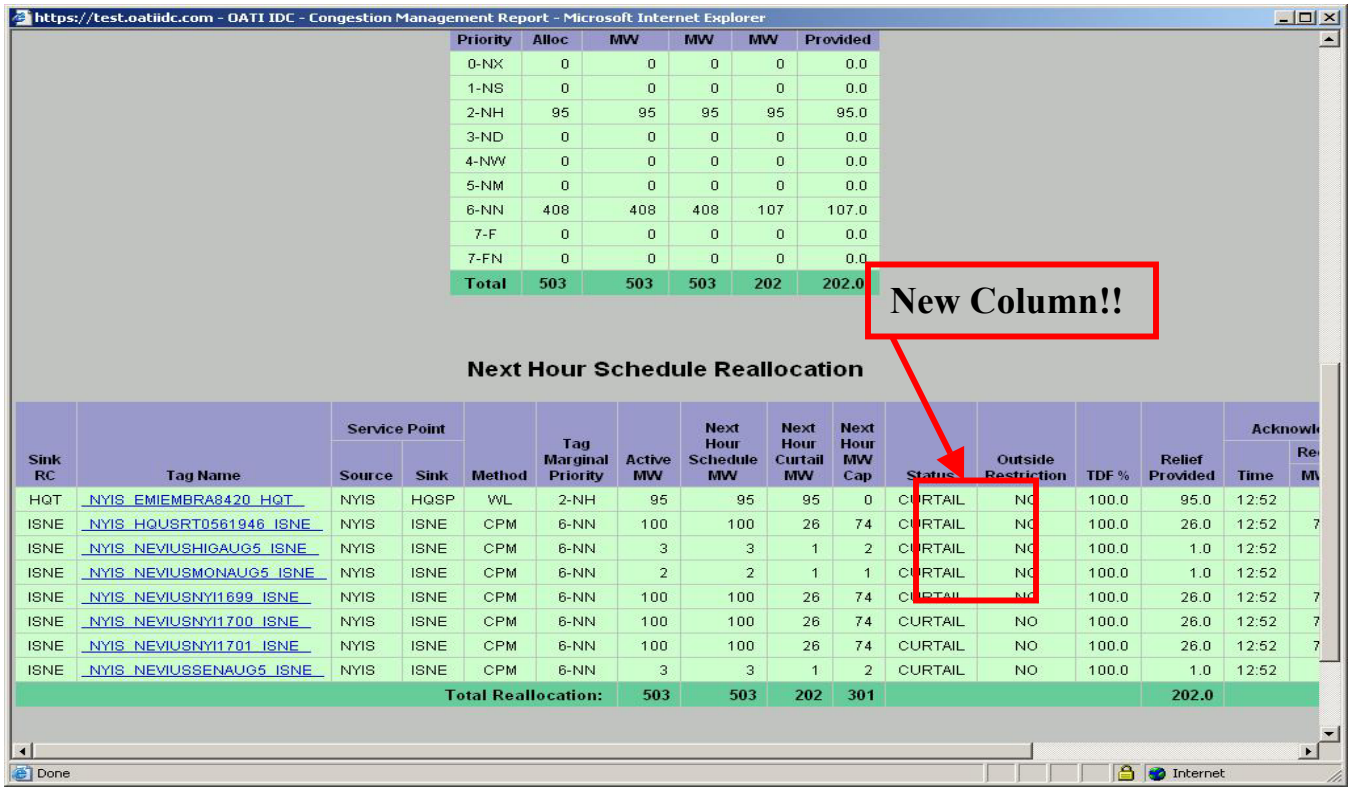
New Features:

When a Control Area or Transmission Provider Cap is present on a tag and is the controlling cap (the CA or TP Cap is more restricting than any other cap) the IDC will Respect that Cap when Curtailing or Reloading a transaction. You can tell if a transaction is being controlled by a Control Area or a Transmission Provider Cap by viewing the "**Outside Restriction**" column in the Congestion Management Report (See Fig 2 Below).

The "Outside Restriction" Column has replaced the existing "Flowgate" column in the Congestion Management report; it now represents any restriction that is controlling the MW Level of a tag that is due to:

1. Another FG in TLR - **"TLR-FG Number(s)"** (i.e. TLR-2001, TLR-6005)
2. A Control Area Cap – "**CA-Acronym**" (i.e. CA-LGEE)
3. A Transmission Provider Cap – "**TP-Acronym**" (i.e. TP-MAPP)

You will be presented with either a Flowgate Number or an indication of which area has a Cap in place. Whatever Cap is controlling that transaction will be listed. If the Outside Restriction column reads **"NO"** then the current TLR you are viewing is controlling the transaction.

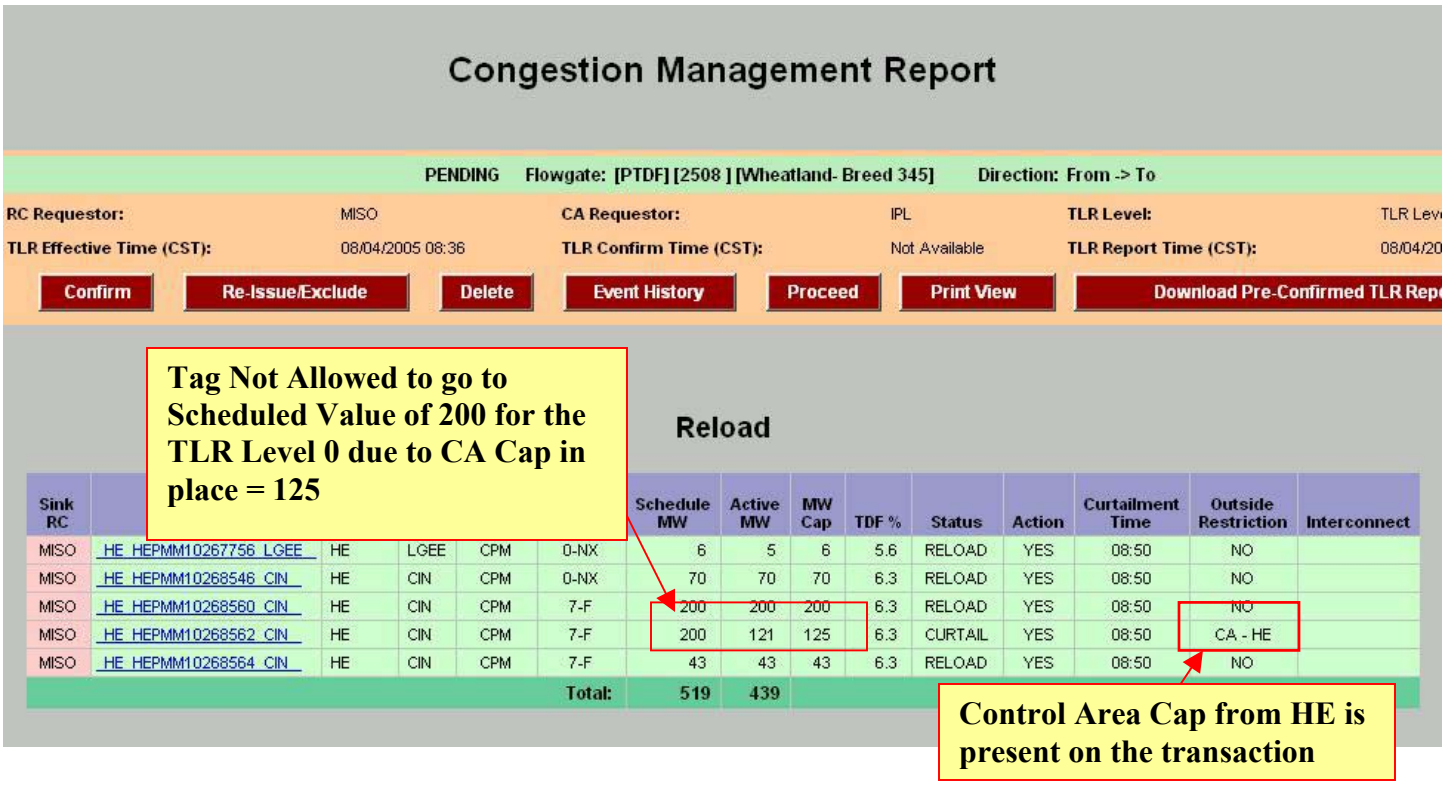


Priority	Alloc	MW	MW	MW	Provided
0-NX	0	0	0	0	0.0
1-NS	0	0	0	0	0.0
2-NH	95	95	95	95	95.0
3-ND	0	0	0	0	0.0
4-NW	0	0	0	0	0.0
5-NM	0	0	0	0	0.0
6-NN	408	408	408	107	107.0
7-F	0	0	0	0	0.0
7-FN	0	0	0	0	0.0
Total	503	503	503	202	202.0

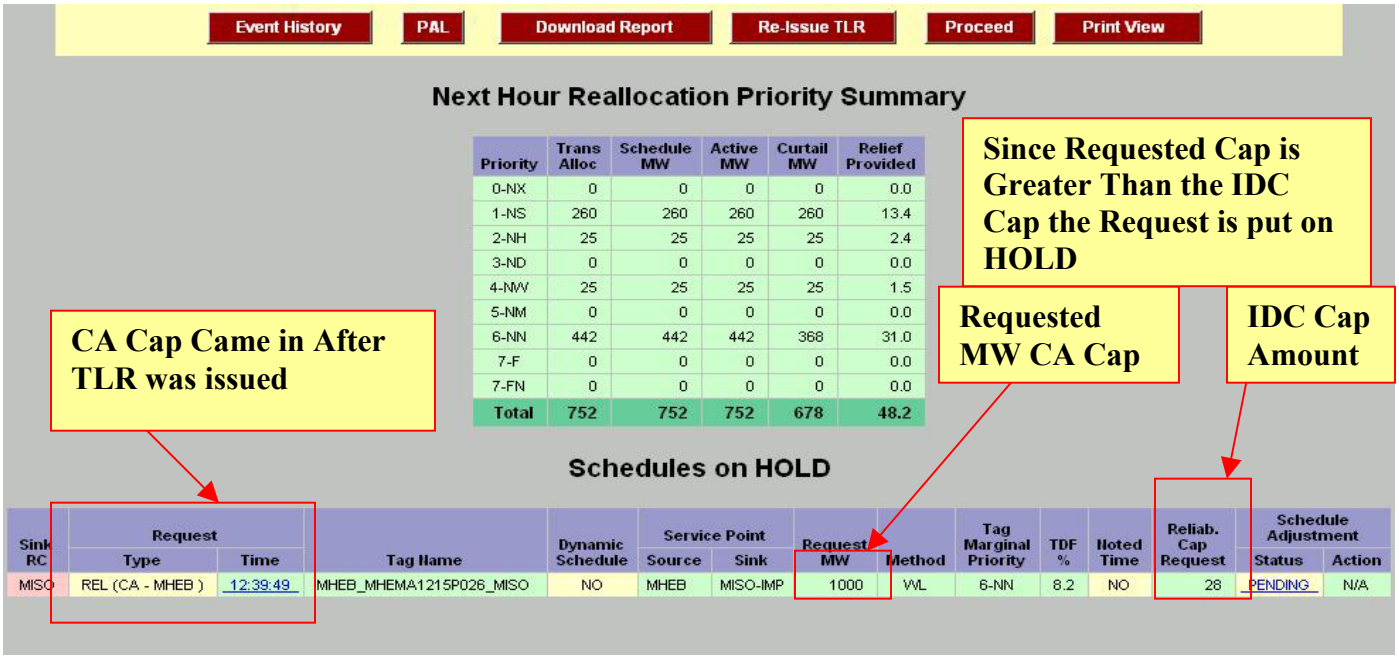
Sink RC	Tag Name	Service Point Source	Service Point Sink	Method	Tag Marginal Priority	Active MW	Next Hour Schedule MW	Next Hour Curtail MW	Next Hour MW Cap	Status	Outside Restriction	TDF %	Relief Provided	Acknowl Time	Re MW
HQT	NYIS_EMIEMBRA8420_HQT	NYIS	HQSP	WL	2-NH	95	95	95	0	CURTAIL	NO	100.0	95.0	12:52	
ISNE	NYIS_HQUSRT0561946_ISNE	NYIS	ISNE	CPM	6-NN	100	100	26	74	CURTAIL	NO	100.0	26.0	12:52	7
ISNE	NYIS_NEVIUSHIGAUG5_ISNE	NYIS	ISNE	CPM	6-NN	3	3	1	2	CURTAIL	NO	100.0	1.0	12:52	
ISNE	NYIS_NEVIUSMONAUG5_ISNE	NYIS	ISNE	CPM	6-NN	2	2	1	1	CURTAIL	NO	100.0	1.0	12:52	
ISNE	NYIS_NEVIUSNYI1699_ISNE	NYIS	ISNE	CPM	6-NN	100	100	26	74	CURTAIL	NO	100.0	26.0	12:52	7
ISNE	NYIS_NEVIUSNYI1700_ISNE	NYIS	ISNE	CPM	6-NN	100	100	26	74	CURTAIL	NO	100.0	26.0	12:52	7
ISNE	NYIS_NEVIUSNYI1701_ISNE	NYIS	ISNE	CPM	6-NN	100	100	26	74	CURTAIL	NO	100.0	26.0	12:52	7
ISNE	NYIS_NEVIUSSENAUG5_ISNE	NYIS	ISNE	CPM	6-NN	3	3	1	2	CURTAIL	NO	100.0	1.0	12:52	
					Total Reallocation:	503	503	202	301				202.0		

Figure –2
"New Outside Restriction Column on TLR Congestion Management Report"

In this figure below a TLR Level 0 was issued to try to remove a IDC Cap from a transaction and RELOAD. The IDC respected the CA Cap from HE and only allowed the tag to move up to the CA Cap level for the TLR issuance.



If a Control Area or Transmission Provider Cap comes into the IDC after a TLR is called with a MW value that is less restrictive than the TLR Curtailment it will be put on HOLD like any new tag.



A small change was made the **Schedule Adjustment Screen** on the **Congestion Management Report** to show which entities are making the transaction adjustment changes.

Select the Hyperlink to see the Schedule Adjustment details

Next Hour Schedule Reallocation

e Point		Method	Tag Marginal Priority	Active MW	Next Hour Schedule MW	Next Hour Curtail MW	Next Hour MW Cap	Status	Outside Restriction	TDF %	Relief Provided	Acknowledgement			Schedule Adjustment		Interconnec
	Sink											Time	Requested Cap MW	Requested Cap Start	Status	Action	
	HQSP	WL	2-NH	95	95	95	0	CURTAIL	NO	100.0	95.0	12:52	0	13:15	YES	N/A	
	ISNE	CPM	6-NN	100	100	26	74	CURTAIL	NO	100.0	26.0	12:52	74	13:15	YES	N/A	
	ISNE	CPM	6-NN	3	3	1	2	CURTAIL	NO	100.0	1.0	12:52	2	13:15	YES	N/A	
	ISNE	CPM	6-NN	2	2	1	1	CURTAIL	NO	100.0	1.0	12:52	1	13:15	YES	N/A	
	ISNE	CPM	6-NN	100	100	26	74	CURTAIL	NO	100.0	26.0	12:52	74	13:15	YES	N/A	
	ISNE	CPM	6-NN	100	100	26	74	CURTAIL	NO	100.0	26.0	12:52	74	13:15	YES	N/A	
	ISNE	CPM	6-NN	100	100	26	74	CURTAIL	NO	100.0	26.0	12:52	74	13:15	YES	N/A	
	ISNE	CPM	6-NN	3	3	1	2	CURTAIL	NO	100.0	1.0	12:52	2	13:15	YES	N/A	
	Total Reallocation:			503	503	202	301				202.0						

Once in the Schedule Adjustment Details you will be able to view the new column "**Request Issuer**" to indicate the entity that sent the Schedule Adjustment. This will help you keep track of what activity there is on the transaction you are looking at.

https://test.oatiidc.com - OATI IDC - Tag Curtailment Reliability Cap Detail - Microsoft Internet Explorer

NYIS_HQUSRT0561946_ISNE

Flowgate: [PTDF] [9155] [NYIS-ISONE]

TLR Level: TLR Level 3A

Direction: From -> To

Exit

Tag Schedule

Tag Time (CST)		Schedule Time (CST)		Reliability Cap	Market Cap	Actual MW
Start	Stop	Start	Stop			
08/02/2005 22:00	08/03/2005 22:00	08/03/2005 12:00	08/03/2005 13:00	NO	100	100
08/02/2005 22:00	08/03/2005 22:00	08/03/2005 13:00	08/03/2005 13:15	1000	100	100
08/02/2005 22:00	08/03/2005 22:00	08/03/2005 13:15	08/03/2005 14:00	74	100	74

New Request Issuer Column

Tag Reliability Cap Requests

Current TLR Request	Request Issuer	Request Status	Approval Status	Request Submission Time	IDC Import Time	Start Time	Stop Time	MW	Company Action		
									Name	Action	Approval
NO	CA - NYIS	APPROVED		08/03 12:33:22	08/03 12:33:22	08/03 13:00	08/03 15:00	50	Not Available		
NO	IDC	APPROVED		08/03 12:37:20	08/03 12:37:20	08/03 13:00	08/03 14:00	74	Not Available		
NO	CA - NYIS	APPROVED		08/03 12:39:17	08/03 12:39:17	08/03 13:00	08/03 15:00	50	Not Available		
NO	CA - NYIS	APPROVED		08/03 12:48:40	08/03 12:48:40	08/03 13:00	08/03 15:00	1000	Not Available		
YES	IDC	APPROVED		08/03 12:52:37	08/03 12:52:37	08/03 13:15	08/03 14:00	74	Not Available		

Done Internet

B. DYNAMIC TRANSACTION HOLD TREATMENT: CO-179

Introduction:

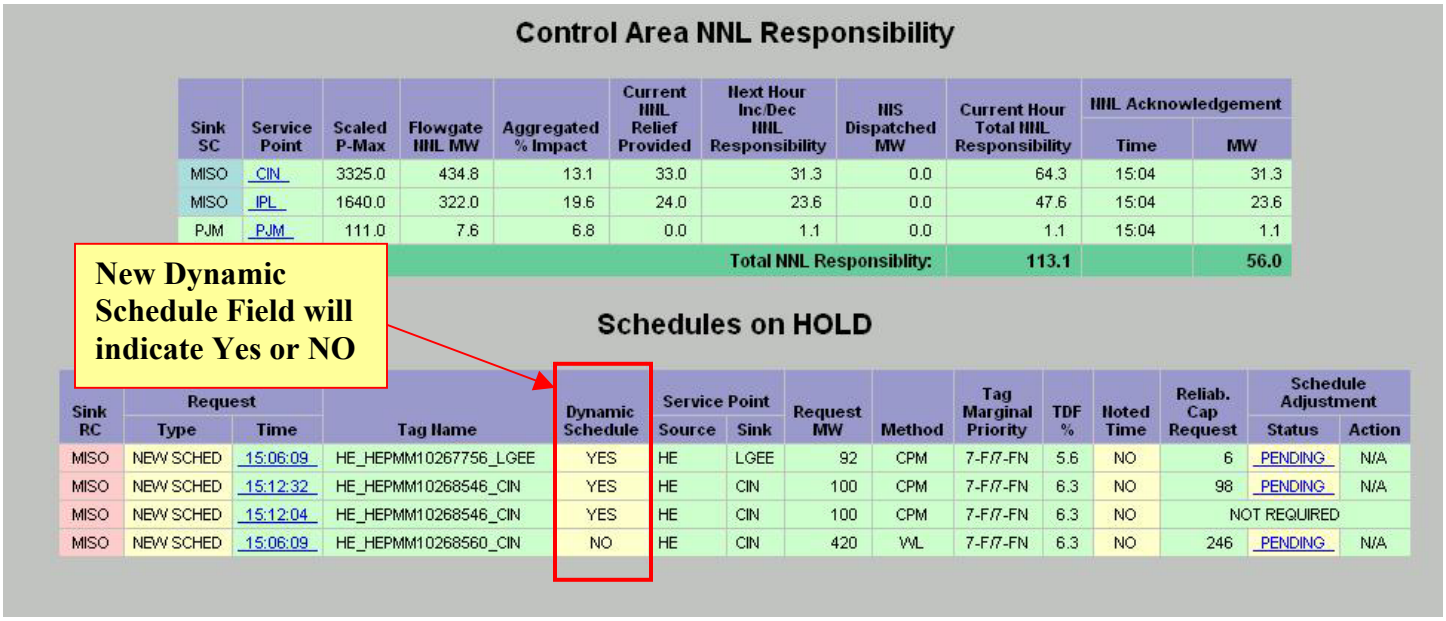
This Change Order Dynamic Transaction HOLD Treatment: CO-179 will allow the IDC software to recognize a dynamic schedule change versus a normal point-to-point transaction change in profile. Currently Dynamic Schedules are required to change their profile if they change their MW output by more than 25% of their scheduled value. This can occur frequently during an hour and requires a tag update. When the tag profile hits the IDC database it is screened to see if it is necessary to put the tag change on HOLD. The following change will be made to allow Dynamic schedules to make these changes without getting put on HOLD in Non-Firm TLR Levels.

When a Flowgate is in a TLR Level 1, 2, 3A, 3B, or 4 (Non-Firm TLR Levels) a FIRM Dynamic Schedule that comes in after the XX:25 deadline will NOT be put on HOLD if it is changing its profile.

If the Flowgate is in a TLR Level 5A or higher the FIRM Dynamic schedule WILL be put on HOLD if it comes in after the XX: 25 deadline.

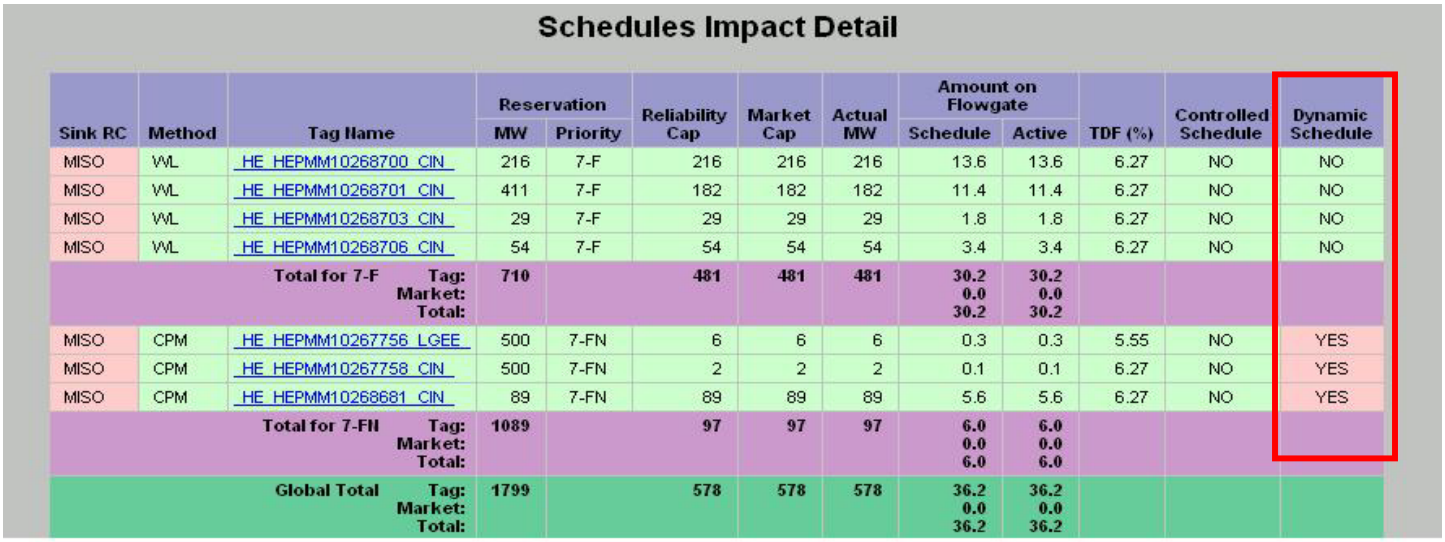
In order to help identify the Dynamic Schedules more clearly in the IDC Software a few fields have been added. The Figures below will show you where the Dynamic Schedule indication can be found.

In the Congestion Management Report for the TLR Level 5 the HOLD Section now has a field that indicates whether or not the transaction being put on HOLD is a Dynamic Schedule.



"TLR Level 5A HOLD Section"

The "Whole Transaction List" will also have a field that indicates whether a tag is Dynamic or not.

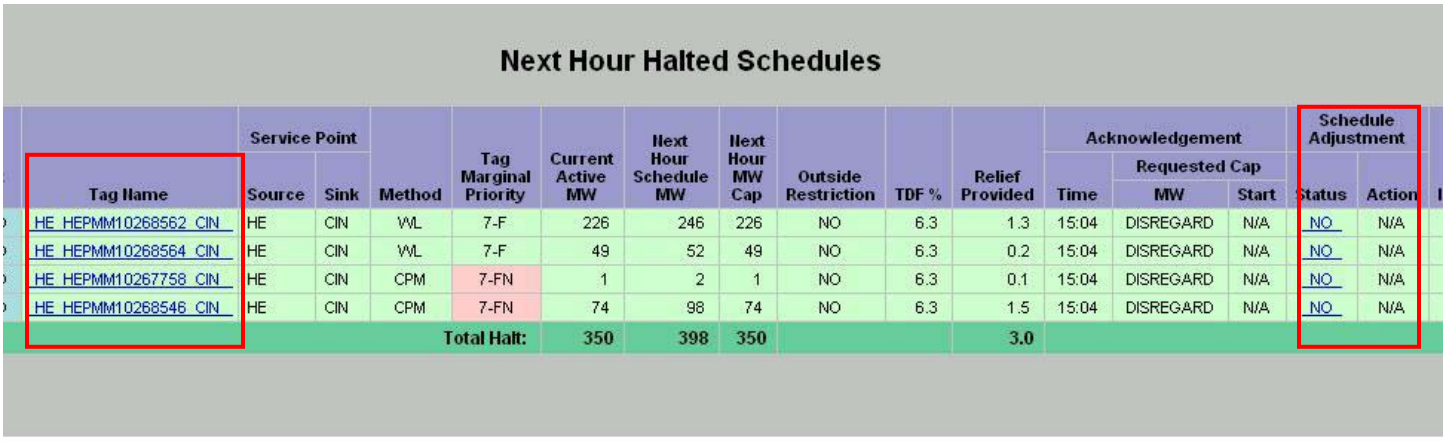


Schedules Impact Detail

Sink RC	Method	Tag Name	Reservation MW	Reservation Priority	Reliability Cap	Market Cap	Actual MW	Amount on Flowgate Schedule	Amount on Flowgate Active	TDF (%)	Controlled Schedule	Dynamic Schedule
MISO	WL	HE_HEPMM10268700_CIN	216	7-F	216	216	216	13.6	13.6	6.27	NO	NO
MISO	WL	HE_HEPMM10268701_CIN	411	7-F	182	182	182	11.4	11.4	6.27	NO	NO
MISO	WL	HE_HEPMM10268703_CIN	29	7-F	29	29	29	1.8	1.8	6.27	NO	NO
MISO	WL	HE_HEPMM10268706_CIN	54	7-F	54	54	54	3.4	3.4	6.27	NO	NO
Total for 7-F		**Tag: Market: Total:**	**710**		**481**	**481**	**481**	**30.2 0.0 30.2**	**30.2 0.0 30.2**			
MISO	CPM	HE_HEPMM10267756_LGEE	500	7-FN	6	6	6	0.3	0.3	5.55	NO	YES
MISO	CPM	HE_HEPMM10267758_CIN	500	7-FN	2	2	2	0.1	0.1	6.27	NO	YES
MISO	CPM	HE_HEPMM10268681_CIN	89	7-FN	89	89	89	5.6	5.6	6.27	NO	YES
Total for 7-FN		**Tag: Market: Total:**	**1089**		**97**	**97**	**97**	**6.0 0.0 6.0**	**6.0 0.0 6.0**			
Global Total		**Tag: Market: Total:**	**1799**		**578**	**578**	**578**	**36.2 0.0 36.2**	**36.2 0.0 36.2**			

"Whole Transaction List Screen Shot"

The Tag Name and Schedule Adjust hyperlinks in the Congestion Management Report both show you information about the transaction, each of them has been updated to show you whether or not the Tag/Schedule you are looking at is Dynamic.

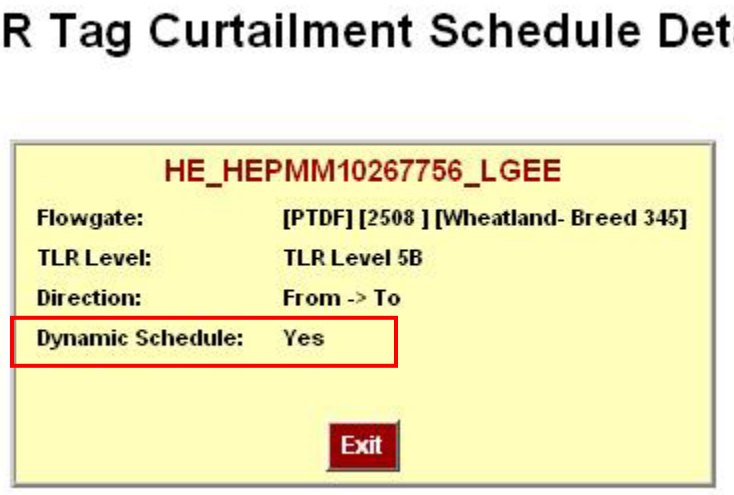


Next Hour Halted Schedules

Tag Name	Service Point Source	Service Point Sink	Method	Tag Marginal Priority	Current Active MW	Next Hour Schedule MW	Next Hour MW Cap	Outside Restriction	TDF %	Relief Provided	Acknowledgement Time	Acknowledgement Requested Cap MW	Acknowledgement Requested Cap Start	Schedule Adjustment Status	Schedule Adjustment Action
HE_HEPMM10268562_CIN	HE	CIN	WL	7-F	226	246	226	NO	6.3	1.3	15:04	DISREGARD	N/A	NO	N/A
HE_HEPMM10268564_CIN	HE	CIN	WL	7-F	49	52	49	NO	6.3	0.2	15:04	DISREGARD	N/A	NO	N/A
HE_HEPMM10267758_CIN	HE	CIN	CPM	7-FN	1	2	1	NO	6.3	0.1	15:04	DISREGARD	N/A	NO	N/A
HE_HEPMM10268546_CIN	HE	CIN	CPM	7-FN	74	98	74	NO	6.3	1.5	15:04	DISREGARD	N/A	NO	N/A
		Total Halt:			**350**	**398**	**350**			**3.0**					

"Congestion Management Report – Hyperlinks to Tag Information"

After selecting each Hyperlink you will be presented with a similar yellow summary box that contains basic information about the transaction. This is where you will see the indication that the transaction is a Dynamic.



"TAG INFORMATION SCREEN"

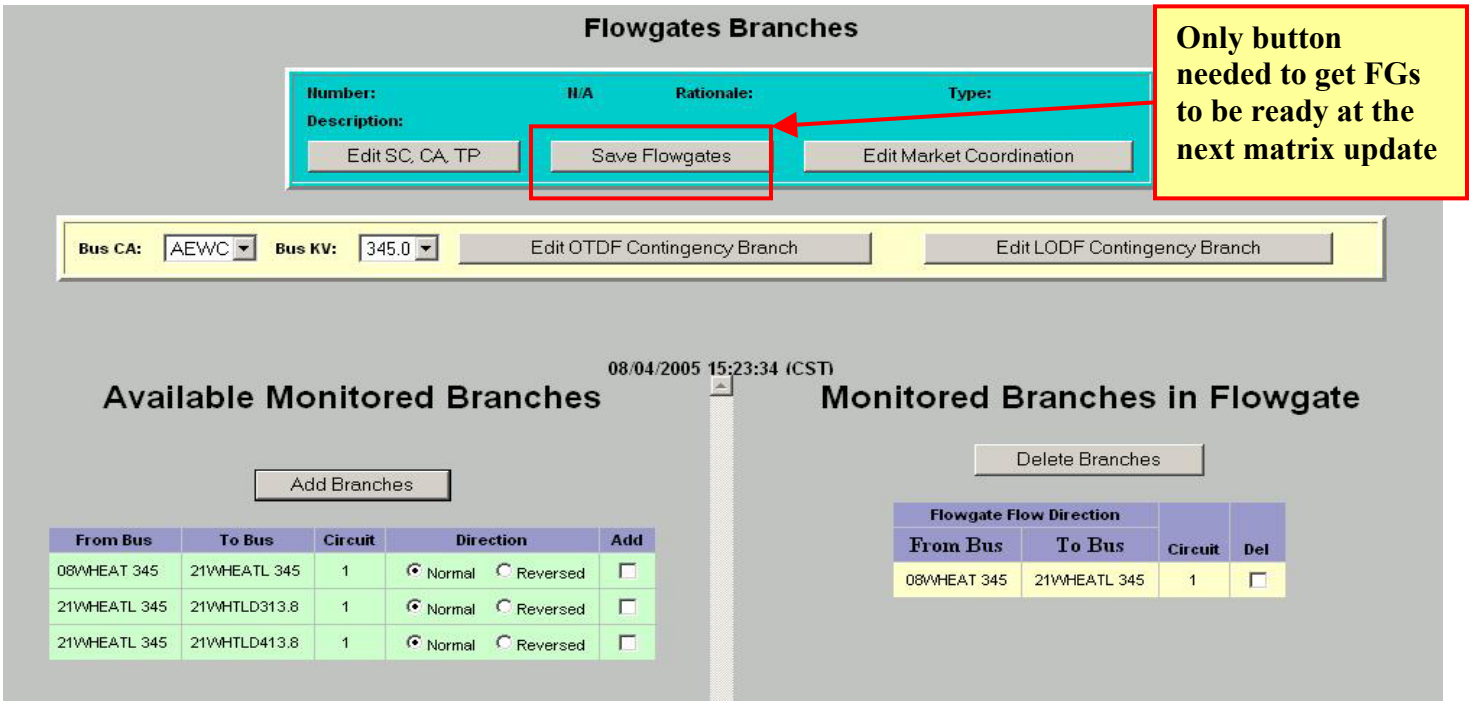
C. UPDATE FG TDF/GSF CALCULATION TIMES: CO-170

Introduction:

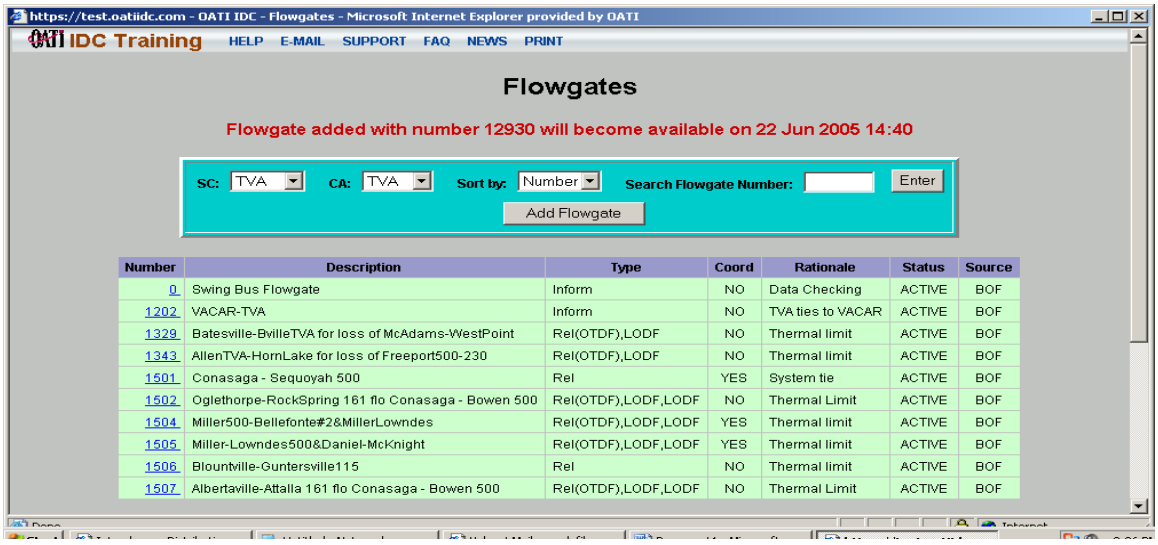
The IDC will now perform full TDF and GSF calculations AUTOMATICALLY at xx:00, xx:20 and xx:40. This change will eliminate the ability for the Reliability Coordinator to enter a start time of the new flowgate addition. Instead, the IDC will automatically make the new flowgate available at the next full TDF/GSF calculation.

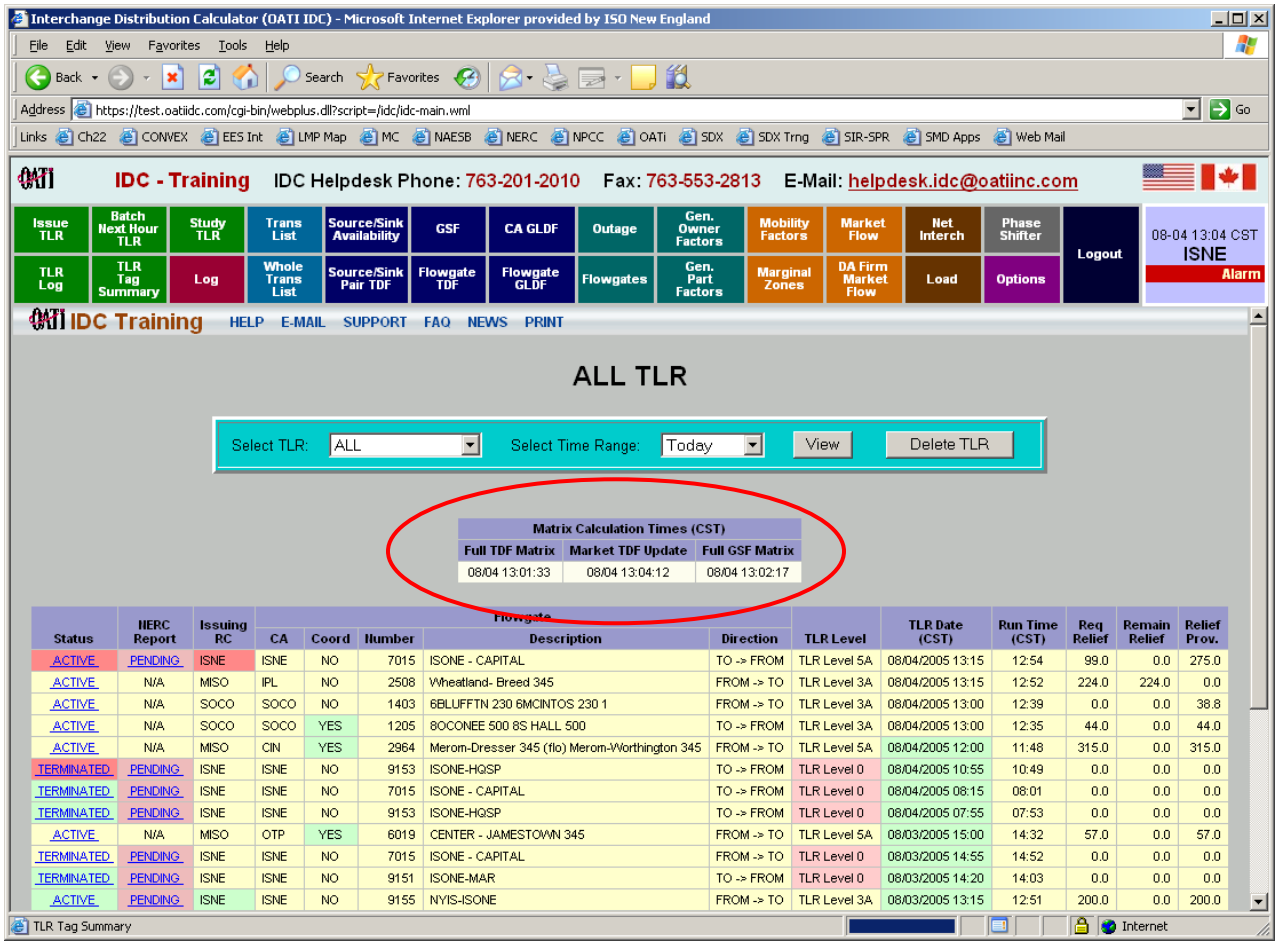
Documentation screen snapshot for adding a FG:
Since factors are by default calculated at the next matrix update, which occurs automatically on 20-minute intervals beginning at the top of the hour, there are no longer any options to select once the FG is added.

When a user is entering a new FG there will no longer be an Option to "Start at the next Matrix Update" or set a time for the FG to start. There will simply be a "Save" button as shown below and the FG will be ready for TLR and GSF factors will be ready at the next Twenty Minute matrix update automatically.



The snapshot below captures the banner which informs the user when the FG and factors will be available after a new FG is added by selecting the "SAVE" button as shown above:





The Figure Above shows the new fields on the TLR Log display that indicates the latest matrix updates for the following:

Full TDF Matrix = All Control Areas TDFs
Market TDF Matrix = All Market Import and Export TDFs
GSF Matrix = All generators in the IDC Model to System Swing

Please remember that the Market TDFs are calculated as often as the Markets send in the Marginal Zone files to the IDC and will out of sequence with the Full TDF and GSF matrices that are calculated every 20 minutes.

D. ISLANDING IN THE IDC MODEL: CO-165

This Change Order Islanding in the IDC Model: CO-165 will allow the IDC software to recognize a topology change that creates a Control Area island. When the IDC receives topology information from the SDX Files that indicates a complete Control Area has been islanded from the rest of the Eastern Interconnection the IDC User will receive an Alarm as shown below.