MISO ICTE Reliability: TLR 5 Event Analysis Report

Event Date: **1/27/2013**

Flowgate ID/Name: **FG 17222 Vienna – Ruston East 115kV flo El Dorado – Sterlington 500kV**

Metrics Tables:

TLR Date	1/27/2013 09:45
Return to Zero	1/28/2013 01:50
Duration	16 hours 5 minutes
Hours in TLR 5	15 hours
Highest Level	5A
MW Cut	6833
Firm	6833
Non-Firm	0

NNL:

EES	LEPA	
AECI	ONT	
AMIL	PJM	
CLEC	SMEE	
CSWS	SOCO	
EDE	SPA	
LAFA	TVA	
LAGN	WSCS	

Flowgate information at the time of the TLR 5 issuance:

Line Rating: 193 LODF: 0.1405 PC MVA: 190 Contingent Element: 1070 Monitored Element: 40

Root Cause:

This event was caused by flows increasing across the Entergy system in a north to south primary direction and for the loss of El Dorado – Sterlington the flows would flow west to east across the Vienna – Ruston East 115kV line heading toward the Amite south load pocket. Contributing to the increased flow on this flowgate was the unplanned outage of the Grand Gulf Unit 1, was an increase in generation output that has lower sensitivities outside of the constrained area and reduced generation in the Amite South load pocket.

Planned or Unplanned Generation Outage(s): (none, if blank)

Type:

Unplanned Grand Gulf Unit 1 tripped on 1/14/2013 21:46

Planned or Unplanned Transmission Outage(s): (none, if blank)

Type:

Tags Excluded from the TLR (The following tags were excluded for Reliability)

None

Internal Non-Firm Tags that were curtailed: No Internal Non-Firm tags were curtailed

Non-Firm AFC's suspended: from 11:00 EST on 1/27/2013 to 23:00 EST on 1/27/2013

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AFC Limitations before, during and after the TLR Event

		Firm AFC available on VIRUSE_STRED (MW)																	
	AFC Initialization Summary Report Time Stamp	01/27 HB 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	01/28 HB 0	1
Prior to Day Ahead	1/25/2013 18:16	88	79	80	81	81	86	90	88	80	72	81	79	78	69	92.41	80.41	57.41	53.41
Day Ahead	1/26/2013 10:17	78	69	71	72	72	77	81	79	71	62	71	69	68	60	83.4	72.41	49.4	46.4
Prior to Day Ahead	1/26/2013 18:11																	51	52
Day Ahead	1/27/2013 10:22																	44	47

		Sum of impact of firm reservations and rfcalc baseflow on VIRUSE_STRED (MW)																	
	AFC Initialization Summary Report Time Stamp	01/27 HB 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	01/28 HB 0	1
Prior to Day Ahead	1/25/2013 18:16	105	114	113	112	112	107	103	105	113	121	112	114	115	124	100.6	112.6	135.6	139.6
Day Ahead	1/26/2013 10:17	115	124	122	121	121	116	112	114	122	131	122	124	125	133	109.6	120.6	143.6	146.6
Prior to Day Ahead	1/26/2013 18:11																	142	141
Day Ahead	1/27/2013 10:22																	149	146

TFC of VIRUSE_STRED
193

	AFC Initialization Summary Report Time Stamp	Average Firm AFC available on VIRUSE_STRED (MW)
Prior to Day Ahead	1/25/2013 6:16:41 PM, 1/26/2013 6:11:34 PM	65
Day Ahead	1/26/2013 10:17:39 AM, 1/27/2013 10:22:24 AM	58
		-8

	AFC Initialization Summary Report Time Stamp	Average Sum of impact of firm reservations and rfcalc baseflow on VIRUSE_STRED (MW)
Prior to Day Ahead	1/25/2013 6:16:41 PM, 1/26/2013 6:11:34 PM	128
Day Ahead	1/26/2013 10:17:39 AM, 1/27/2013 10:22:24 AM	135
		8

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	AFC Initialization Summary Report Timestamp (CDT)	AFC available on VIRUSE_STRED (MW)																		
		01/27 HB 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	01/28 HB 0	1	
Prior to Day Ahead	1/25/2013 18:16	88	79	80	81	81	86	90	88	80	72	81	79	78	69	92	80	57	53	Firm
Day Ahead	1/26/2013 10:17	78	69	71	72	72	77	81	79	71	62	71	69	68	60	83	72	49	46	Firm
Prior to Day Ahead	1/26/2013 18:11																	51	52	Firm
Operating Horizon	1/27/2013 0:13	146	140	140	140	143	143	142	142	145	150	158	157	153	151	131	130			Non-Firm
Operating Horizon	1/27/2013 1:15	145	139	140	140	142	143	142	143	145	149	155	155	151	150	132	131			Non-Firm
Operating Horizon	1/27/2013 2:13	143	138	138	139	141	141	141	142	144	147	153	153	149	148	130	130			Non-Firm
Operating Horizon	1/27/2013 3:13	146	141	141	142	144	144	144	144	147	151	157	156	152	151	133	133			Non-Firm
Operating Horizon	1/27/2013 3:41	146	141	141	142	144	144	144	144	147	151	157	156	152	151	133	133			Non-Firm
Operating Horizon	1/27/2013 4:12	146	140	141	141	143	144	144	144	146	150	156	156	152	151	133	133			Non-Firm
Operating Horizon	1/27/2013 5:12	144.17	139.2	139.2	140.2	143	143	143	143	146	149	156	155	151	150	132	132			Non-Firm
Operating Horizon	1/27/2013 6:36	134	142	143	144	145	146	145	146	148	152	158	157	154	153	135	135			Non-Firm
Operating Horizon	1/27/2013 7:11	134	135	149	149	153	154	153	153	156	160	166	166	162	161	141	144			Non-Firm
Operating Horizon	1/27/2013 8:12	45	125	127	140	141	141	140	140	143	148	155	154	150	150	129	129			Non-Firm
Operating Horizon	1/27/2013 9:11		43	122	124	138	138	137	137	140	145	153	153	149	147	127	127			Non-Firm
Day Ahead																		149	146	Firm
Operating Horizon	1/27/2013 10:32			0	0	0	0	0	0	140	145	153	153	149	147	127	127			Non-Firm
Operating Horizon	1/27/2013 11:10				0	0	0	0	0	152	157	165	166	162	161	139	138			Non-Firm
Operating Horizon	1/27/2013 12:26					0	0	0	0	152	155	162	164	160	159	140	139	156	150	Non-Firm
Operating Horizon	1/27/2013 13:18						0	0	0	152	155	161	163	159	158	139	138	156	150	Non-Firm
Operating Horizon	1/27/2013 14:18							0	0	141	157	164	166	162	161	142	141	158	151	Non-Firm
Operating Horizon	1/27/2013 15:17								0	137	143	161	163	159	158	139	138	155	149	Non-Firm
Operating Horizon	1/27/2013 16:17									0	0	0	0	0	0	144	143	158	152	Non-Firm
Operating Horizon	1/27/2013 17:17										0	0	0	0	0	139	138	155	149	Non-Firm
Operating Horizon	1/27/2013 18:37											0	0	0	0	143	145	155	149	Non-Firm
Operating Horizon	1/27/2013 19:17												0	0	0	142	145	155	149	Non-Firm
Operating Horizon	1/27/2013 20:17													0	0	132	142	153	147	Non-Firm
Operating Horizon	1/27/2013 21:16														0	126.8	125	148	143	Non-Firm
Operating Horizon	1/27/2013 22:16															72	152	134	142	Non-Firm
Operating Horizon	1/27/2013 23:15																73	134	128	Non-Firm
Operating Horizon	1/28/2013 0:16																	92	128	Non-Firm
Operating Horizon	1/28/2013 1:16																		99	Non-Firm

Indicates TLR Avoidance (Non-sale of Non-Firm)

Event History:

TLR Event History
17222 - Vienna-RustonE 115Kv ftlo Eldorado-Sterlington 500Kv

	Status	TLR	Effective Time	Confirmation Time	Run Time	Flow Change Requested	Requested Relief	Remaining Relief	Relief Provided	Total Cuts			RC Ack Cuts			MF	NNL
										Tags	MW	Relief	Tags	MW	Relief		
NH	SUPERSEDED	1	01/27/2013 09:45	01/27/2013 09:25	01/27/2013 09:25	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0
NH	SUPERSEDED	5A	01/27/2013 11:00	01/27/2013 10:37	01/27/2013 10:33	-5.0	12.0	0.0	12	5	218	12	5	218	12	0	0
NH	SUPERSEDED	5A	01/27/2013 12:00	01/27/2013 11:27	01/27/2013 11:26	0.0	17.0	0.0	17	5	308	17	5	308	17	0	0
NH	SUPERSEDED	5A	01/27/2013 13:00	01/27/2013 12:29	01/27/2013 12:26	+3.0	16.0	0.0	16	5	291	16	5	291	16	0	0
NH	SUPERSEDED	5A	01/27/2013 14:00	01/27/2013 13:31	01/27/2013 13:25	+4.0	23.0	0.0	23	5	417	23	5	417	23	0	0
NH	SUPERSEDED	5A	01/27/2013 15:00	01/27/2013 14:30	01/27/2013 14:26	+13.0	21.0	0.0	21	5	379	21	5	379	21	0	0
NH	SUPERSEDED	5A	01/27/2013 16:00	01/27/2013 15:31	01/27/2013 15:28	+12.0	15.0	0.0	15	5	272	15	5	272	15	0	0
NH	SUPERSEDED	5A	01/27/2013 17:00	01/27/2013 16:29	01/27/2013 16:26	+10.0	5.0	0.0	5	5	92	5	5	92	5	0	0
NH	SUPERSEDED	5A	01/27/2013 18:00	01/27/2013 17:32	01/27/2013 17:27	+5.0	15.0	0.0	15	5	272	15	5	272	15	0	0
NH	SUPERSEDED	5A	01/27/2013 19:00	01/27/2013 18:27	01/27/2013 18:26	-5.0	29.0	0.0	29	5	526	29	5	526	29	0	0
NH	SUPERSEDED	5A	01/27/2013 20:00	01/27/2013 19:26	01/27/2013 19:25	-10.0	36.0	0.0	36	5	650	36	5	650	36	0	0
NH	SUPERSEDED	5A	01/27/2013 21:00	01/27/2013 20:26	01/27/2013 20:25	-10.0	53.0	0.1	53	5	953	53	5	953	53	0	0
NH	SUPERSEDED	5A	01/27/2013 22:00	01/27/2013 21:27	01/27/2013 21:26	0.0	58.0	5.1	53	5	953	53	5	953	53	0	0
NH	SUPERSEDED	5A	01/27/2013 23:00	01/27/2013 22:27	01/27/2013 22:26	+10.0	39.0	0.0	39	5	703	39	5	703	39	0	0
NH	SUPERSEDED	5A	01/28/2013 00:00	01/27/2013 23:26	01/27/2013 23:25	+10.0	35.0	0.0	35	5	631	35	5	631	35	0	0
NH	SUPERSEDED	5A	01/28/2013 01:00	01/28/2013 00:27	01/28/2013 00:26	+10.0	13.0	3.9	9	2	168	9	2	168	9	0	0
NH	TERMINATED	0	01/28/2013 01:50	01/28/2013 01:27	01/28/2013 01:26	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0

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Event Summary:

Event Summary

FILE SAVED AS: MISO_17222_20130127_0845.htm

Incident:	MISO_17222_20130127_0845	Date: 01/27/2013 (EST)	Reliability Coordinator: MISO
Initial Conditions:	N/A		
Flowgate:	17222 - Vienna-RustonE 115Kv ftlo E...	Rating: 0	LODF: 14.05%
TLR Direction:	Normal		
Effective StartTime:	01/27/2013 09:45 (EST)	Effective EndTime: 01/28/2013 01:50 (EST)	TLR Duration: 16 Hours and 5 Minutes

TLR Actions

				Schedule							NNL Relief			Market Relief					Flow			
					IDC Cut		RC Cut Acknowledge		Hold													
Confirm Time	Level	Effective Hour	Priority	Total Tags Cut / Hold	MW	Relief	MW	Relief	MW	Relief	CA	IDC MW	RC Ackn MW	Type	Mkt	IDC MW	RC Ackn MW	Current	Post Cont.	Cont. Flow	TLR Action Comments
Jan 27 09:25 (EST)	TLR 1	CURRENT				NONE						NONE			NONE			0	0	0	N/A
Jan 27 10:37 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	218 218	12.1 12.1	218 218	12.1 12.1	0 0	0.0 0.0		NONE		ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 11:27 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	308 308	17.1 17.1	308 308	17.1 17.1	0 0	0.0 0.0		NONE		ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 12:29 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	291 291	16.2 16.2	291 291	16.2 16.2	0 0	0.0 0.0		NONE		ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 13:31 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	417 417	23.1 23.1	417 417	23.1 23.1	0 0	0.0 0.0		NONE		ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 14:30 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	379 379	21.0 21.0	379 379	21.0 21.0	0 0	0.0 0.0		NONE		ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 15:31 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	272 272	15.1 15.1	272 272	15.1 15.1	0 0	0.0 0.0		NONE		ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 16:29 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	92 92	5.1 5.1	92 92	5.1 5.1	0 0	0.0 0.0		NONE		ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 17:32 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	272 272	15.1 15.1	272 272	15.1 15.1	0 0	0.0 0.0		NONE		ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 18:27 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	526 526	29.2 29.2	526 526	29.2 29.2	0 0	0.0 0.0		NONE		ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A

Jan 27 19:26 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	650 650	36.1 36.1	650 650	36.1 36.1	0 0	0.0 0.0	NONE	ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 20:26 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	953 953	52.9 52.9	953 953	52.9 52.9	0 0	0.0 0.0	NONE	ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 21:27 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	953 953	52.9 52.9	953 953	52.9 52.9	0 0	0.0 0.0	NONE	ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 22:27 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	703 703	39.1 39.1	703 703	39.1 39.1	0 0	0.0 0.0	NONE	ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 27 23:26 (EST)	TLR 5A	NEXT	7-F Total	5 / 0 5 / 0	631 631	35.1 35.1	631 631	35.1 35.1	0 0	0.0 0.0	NONE	ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 28 00:27 (EST)	TLR 5A	NEXT	7-F Total	2 / 0 2 / 0	168 168	9.1 9.1	168 168	9.1 9.1	0 0	0.0 0.0	NONE	ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0	0	0	N/A
Jan 28 01:27 (EST)	TLR 0	CURRENT	NONE								NONE		NONE			0	0	0	N/A

TLR Schedule Totals

Priority	Schedule			
	Total Tags Cut / Hold	IDC Cut MW	RC Cut Acknowledge MW	Hold MW
0	0	0	0	0
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	72	6833	6833	0
Total	72	6833	6833	0

TLR Market Flow Totals

Market	Type	Market Relief	
		IDC MW	RC Ackn MW
SWPP	ED-2	0.0	0.0
	ED-6	0.0	0.0
	FIRM-7	0.0	0.0
Total for SWPP		0.0	0.0
Total		0.0	0.0