

ICTE TLR 5 Investigation Report
Flowgate 1911
(Hartburg - Inland Orange 230 kV for the loss of Hartburg - Cypress 500 kV)
TLR Level 5: February 9, 2011
Report Issued:

1. Description of purpose/cause of hold/curtailment.

This report is submitted in accordance with the NERC Transmission Loading Relief Investigation Procedure for the TLR 5 event that occurred on Flowgate 1911 on February 9, 2011. Flowgate 1911 is an Entergy flowgate. The TLR 5 was in effect from 4:27 PM until 11:36 PM on February 9, 2011. Projected post-contingent flows on the Hartburg - Inland Orange 230 kV line for the loss of the Hartburg - Cypress 500 kV line exceeded the SOL.

2. Facility/flowgate limitations and flows at the time the TLR was initiated.

At the time the TLR 5a was issued, the Limiting Element was rated at 727 MVA. Flow on the Limiting Element was 366 MVA. Flow on the Contingent Element was 891 MVA. The LODF was approximately 46%. Post-contingent flow on the Limiting Element was approximately 776 MVA.

3. TLR levels, timing, and relief requested amounts.

TLRs levels, timing and relief requested amounts are shown on pages 3 and 4.

4. Transmission and generation outages or changes from prediction that may have contributed.

- There were no unplanned outages on the ICTE system associated with this flowgate.
- There were no abnormal load changes.
- There was 0 mw of non-firm service impacting the flowgate day of since the RC was in a TLR 5 event.

There were no unplanned/planned transmission outages that significantly impacted the TLR 5 event. The constraint is a North to South flowgate. Units in the Entergy BA (including internal IPPs and QFs) North of the constraint have an average Generation Shift Factor (GSF) of -7%, while units south have an average GSF of 35%. The base loaded units north of the constraint were for the most part loaded at their P_{MAX} for the duration of the event. Other base loaded units south of the constraint were for the most part operating at P_{MAX} during the event. Other generating units south of the constraint had lowered due to a decrease in load and for regulation reasons. IPP/QF generation stayed approximately the same through the TLR 5 event.

5. Procedures implemented prior to hold/curtailment.

There were no non-firm transactions with greater than 5% TDF available for curtailment to alleviate the flowgate. The system was not re-dispatched to prevent curtailment of firm service. The ICT RC verifies with Entergy's Shift Supervisor before a TLR 5 event is called if there are any re-dispatch options available. The Entergy Shift Supervisor to-date has not offered any re-dispatch solutions to prevent a TLR 5 event.

6. The initial investigation shall compare all transaction curtailment lists as generated by the IDC with the list of transactions flowing as determined by the IDC (Whole Transaction Lists) both before and after curtailment. The reasons for any transactions that were excluded from curtailment shall be provided. For those transactions not curtailed, the Reliability Authority will identify those entities and any affiliation with said entities.

	AFC Initialization Summary Report Timestamp	Average Firm AFC available on HBIN_HBCYP (MW)
Prior to Day Ahead	2/7/2011 18:43, 2/8/2011 18:43	64
Day Ahead	2/8/2011 11:17, 2/9/2011 11:05	27
	Difference	-37

	AFC Initialization Summary Report Timestamp	Ave. of impact of firm reservations and rfcalc baseflow on HBIN_HBCYP (MW)
Prior to Day Ahead	2/7/2011 18:43, 2/8/2011 18:43	455
Day Ahead	2/8/2011 11:17, 2/9/2011 11:05	492
	Difference	37

AFC Initialization Summary Report Timestamp (EST)	AFC available on HBIN_HBCYP (MW)																														
	02/09 HB 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	02/10 HB 0	1	2	3		4	
Prior to Day Ahead	27/11 18:43	29	41	39	30	25	36	75	127	105	111	92	57	92	102	109	94	73	48	41	43	39	38	51	51	77	84	72	69	52	Firm
Day Ahead	2/8/11 11:17	13	24	22	39	17	-25	29	41	5	-5	19	47	69	90	98	99	89	27	6	25	-11	12	13	17	44	51	39	35	6	Firm
Open callg Horizontal	2/9/11 15:31																														Non-Firm
Open callg Horizontal	2/9/11 16:24																														Non-Firm
Open callg Horizontal	2/9/11 17:24																														Non-Firm
Open callg Horizontal	2/9/11 18:20																														Non-Firm
Open callg Horizontal	2/9/11 19:25																														Non-Firm
Open callg Horizontal	2/9/11 20:22																														Non-Firm
Open callg Horizontal	2/9/11 21:24																														Non-Firm
Open callg Horizontal	2/9/11 22:22																														Non-Firm
Open callg Horizontal	2/9/11 23:21																														Non-Firm
Open callg Horizontal	2/10/11 0:22																														Non-Firm
Open callg Horizontal	2/10/11 1:19																														Non-Firm
Open callg Horizontal	2/10/11 2:11																														Non-Firm
Open callg Horizontal	2/10/11 3:25																														Non-Firm
Open callg Horizontal	2/10/11 4:20																														Non-Firm

12. Description of actions taken to avoid future hold/curtailments.

This TLR was caused by a combination of generation patterns, load, and system flows. Due to this situation, no actions were taken to avoid future hold/curtailments.

13. Provide IDC generated Congestion Management Reports showing transaction curtailment list and Control Area NNL (network and native load) curtailment responsibility.

Congestion Management Reports for each issuance of the TLR have been reviewed and kept on file. These screen shots are not being provided to reduce the size of this report.

14. Re-dispatch actions taken.

Entergy had 570 MW of NNL.
LAGN had 31 MW of NNL.

Event History

Issuing RC: ICTE
Flowgate: 1911 - Hartburg-Inland Orange 230 kV for the loss of Hartburg-Cypress 500 kV
Event Begin: 2011-02-09 16:45
Event End: 2011-02-10 04:00
Event Duration: 12 Hours

TLR Level	TLR Date	TLR Confirm Time	Run Time	Requested Relief	Remaining Relief	Relief Provided	Total Cuts	
							Tags	MW
TLR Level 4	02/09/2011 16:45	02/09/2011 16:36	02/09/2011 16:34:54	0.0	0.0	0.0	1	100
TLR Level 5A	02/09/2011 18:00	02/09/2011 17:30	02/09/2011 17:27:36	74.0	0.0	74.8	22	152
TLR Level 5A	02/09/2011 19:00	02/09/2011 18:28	02/09/2011 18:26:08	55.0	0.0	117.5	24	234
TLR Level 5A	02/09/2011 20:00	02/09/2011 19:28	02/09/2011 19:26:09	22.0	0.0	121.2	25	243
TLR Level 5A	02/09/2011 21:00	02/09/2011 20:31	02/09/2011 20:27:24	19.0	0.0	120.8	22	232
TLR Level 5A	02/09/2011 22:00	02/09/2011 21:35	02/09/2011 21:29:21	15.0	0.0	117.1	20	188
TLR Level 5A	02/09/2011 23:00	02/09/2011 22:29	02/09/2011 22:27:51	1.0	0.0	103.4	19	153
TLR Level 5A	02/10/2011 00:00	02/09/2011 23:37	02/09/2011 23:34:35	0.0	0.0	52.6	16	137
TLR Level 5A	02/10/2011 01:00	02/10/2011 00:32	02/10/2011 00:28:12	0.0	0.0	0.0	0	0
TLR Level 1	02/10/2011 02:00	02/10/2011 01:27	02/10/2011 01:27:00	0.0	0.0	0.0	0	0
TLR Level 0	02/10/2011 04:00	02/10/2011 03:45	02/10/2011 03:45:09	0.0	0.0	0.0	0	0

Event Summary

FILE SAVED AS: ICTE_1911_20110209_1545.htm

Incident: ICTE_1911_20110209_1545	Date: 02/09/2011	Reliability Coordinator: ICTE
Initial Conditions: N/A		
Flowgate: 1911 - Hartburg-Inland Orange 230 kV ...	Rating: 727	LODF: 45.98%
TLR Direction: Normal		
Effective StartTime: 02/09/2011 16:45	Effective EndTime: 02/10/2011 04:00	TLR Duration: 11 Hours and 15 Minutes

TLR Actions

Confirm Time	Level	Effective Hour	Priority	Schedule						NNL Relief			Market Relief				Flow			TLR Action Comments	
				Total Tags Cut / Hold	IDC Cut MW	Relief MW	RC Cut Acknowledge MW	Relief MW	Hold MW	Relief MW	CA	IDC MW	RC Askn MW	Type	Mkt	IDC MW	RC Askn MW	Current	Post Cont.		Cont. Flow
Feb 09 16:36	TLR 4	CURRENT	8-NN	1 / 0	100	7.3	100	7.3	0	0.0	NONE			NONE				345	739	859	N/A
		TOTAL	1 / 0	200	7.3	100	7.3	0	0.0	NONE			NONE								
Feb 09 17:30	TLR 5A	NEXT	8-NN	1 / 1	100	7.3	100	7.3	50	3.7	NONE			NONE							
		TOTAL	1 / 1	200	7.3	100	7.3	50	3.7	NONE			NONE								
Feb 09 19:26	TLR 5A	NEXT	7-F	24 / 0	234	19.2	234	19.2	0	0.0	EES	84.0	84.0	NONE		339	735	802	N/A		
		TOTAL	24 / 0	234	19.2	234	19.2	0	0.0	EES	84.0	84.0	NONE								
Feb 09 19:28	TLR 5A	NEXT	7-F	25 / 0	243	20.1	243	20.1	0	0.0	EES	89.0	89.0	NONE		339	727	846	N/A		
		TOTAL	25 / 0	243	20.1	243	20.1	0	0.0	EES	89.0	89.0	NONE								
Feb 09 20:31	TLR 5A	NEXT	7-F	22 / 0	232	19.4	232	19.4	0	0.0	EES	97.0	97.0	NONE		321	703	831	N/A		
		TOTAL	22 / 0	232	19.4	232	19.4	0	0.0	EES	97.0	97.0	NONE								
Feb 09 21:35	TLR 5A	NEXT	7-F	20 / 0	188	15.4	188	15.4	0	0.0	EES	97.0	97.0	NONE		330	717	843	N/A		
		TOTAL	20 / 0	188	15.4	188	15.4	0	0.0	EES	97.0	97.0	NONE								
Feb 09 22:29	TLR 5A	NEXT	7-F	19 / 0	153	12.3	153	12.3	0	0.0	EES	87.0	87.0	NONE		291	839	757	N/A		
		TOTAL	19 / 0	153	12.3	153	12.3	0	0.0	EES	87.0	87.0	NONE								
Feb 09 23:37	TLR 5A	NEXT	8-NN	1 / 0	50	2.9	50	2.9	0	0.0	EES	40.0	40.0	NONE		257	563	667	N/A		
		TOTAL	16 / 0	137	9.7	137	9.7	0	0.0	EES	42.0	43.0	NONE								
Feb 10 00:32	TLR 5A	NEXT			NONE						NONE			NONE			295	838	747	N/A	
Feb 10 01:27	TLR 1	CURRENT			NONE						NONE			NONE			282	819	734	N/A	

Feb 10 03:45	TLR 0	CURRENT	NONE	NONE	NONE	273	558	707	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	3	250	250	150
7	147	1289	1289	52
Total	150	1539	1539	202

TLR NNL Totals

CA	NNL Relief	
	IDC MW	RC Ackn MW
EES	569.0	570.0
LAGN	29.0	31.0
Total	598.0	601.0

Date	Time	Category	'Detail'
02/09/11	1510	Flow Gate Assessment	Assessed as ICP PC 102%
02/09/11	1534	TLR - 4 Initial	OASIS Ref#374808
02/09/11	1540	TA Notification	ICT TA notified to zero AFCs for flowgate
02/09/11	1557	Internal Non-Firm	Sent email to SOC Tommy to curtail non-firm schedule
02/09/11	1627	TLR - 5a Initial	PC 108%. Asked EES: Verbiage for Redispatch Options - NO. Conditional Firm - NO. Notified ICT TA. Internal non-firm curtailed.
02/09/11	1733	TLR - 5a Reissue	res iossed tlr 5 lagn providing NNL
02/09/11	1733	TLR - 5a Reissue	re-issued tlr 5a nnl ees=+35.3 total 93.8 lagn +1.2 total 4.5 PC 102% tarped
02/09/11	1837	TLR - 5a Reissue	re-issue tlr 5a pc 102% nnl ees +2.6 total 96.4 lagn +.1 total 4.6
02/09/11	1936	TLR - 5a Reissue	reissue tlr 5a pc 98% ees nnl 96.7 lagn 4.7
02/09/11	2040	ICP/LAP Assessment	re-issued tlr 5a pc 100% ees nnl 96.8 lagn 4.9
02/09/11	2130	TLR - 5a Reissue	re issue tlr 5a pc 89% giving nnl back ees -10.3 total 86.5 lagn -0.4 total 4.5
02/09/11	2240	TLR - 5a Reissue	re issue tlr 5a pc 78% giving back nnl ees= -46.1 total 40.4 lagn -2 total 2.5
02/09/11	2336	TLR - 5b Reissue	re issue tlr 5a pc 89% all nnl is 0
02/10/11	0300	TLR - 0	ended tlr 1 issued tlr 0 contacted ict tariff ref 374808