

ICTE TLR 5 Investigation Report
Flowgate 1324
(Whitebluff - Sheridan 500 kV for the loss of Mabelvale - Sheridan 500 kV)
TLR Level 5: May 16, 2010
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 1324 on May 16, 2010. Flowgate 1324 is an Entergy flowgate. The TLR 5 was in effect from 11:30 PM on May 16 until 2:30 AM on May 17, 2010. Projected post-contingent flows on the Whitebluff - Sheridan 500 kV line for the loss of the Mabelvale - Sheridan 500 kV line exceeded the SOL.

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

At the time the TLR 5b was issued, the Limiting Element was rated at 1732 MVA. Flow on the Limiting Element was 1196 MVA. Flow on the Contingent Element was 968 MVA. The LODF was approximately 80%. Post-contingent flow on the Limiting Element was approximately 1970 MVA.

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

TLRs levels, timing and relief requested amounts are shown on pages 3, 4 and 5.

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

There were no unplanned outages. Nelson 6 was offline in a planned outage.

5. Procedures implemented prior to hold/curtailment.

Curtailed non-firm transactions, not enough non-firm to alleviate the flowgate.

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.

There were no known transactions excluded from curtailment for this TLR.

7. List of known transactions not in the IDC with Transaction Contribution Factors greater than the curtailment threshold and actions taken to curtail such transactions.

There were no known transactions not in the IDC.

8. Excerpts from the RA Operations Log containing information relevant to the TLR event.

Information was provided to Reliability Coordinators through the IDC and the RCIS. Also the ICTE Reliability Coordinators logged information describing the actions taken at each issuance of the TLR.

9. Flowgate limitations as identified by security analysis processes conducted by the Reliability Authority for the day prior to the TLR event.

In the next day process, we did not see an issue with this flowgate, based off of the peak study.

10. State Estimator snapshots and security analysis, including any contingency analysis or stability analysis, along with any other recorded data indicating need for TLR.

The ICTE Reliability Coordinator was monitoring their state estimator for potential issues during this time. Screen shots were taken during each issuance of the TLR level 5.

11. ATC limitations before, during, and after the TLR event.

ICT Tariff Administration grants transmission service using an AFC process. This process evaluates each transmission request on a case by case basis. There are no ATC values for individual corridors to or from the Entergy system. ICT Tariff Administration was not granting any transmission requests that impacted the congested flowgate by 3 % or greater at the time of the TLR 5.

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 achieved their NNL obligation by moving generation on White Bluff.

Event History

Issuing RC: ICTE
Flowgate: 1324 - WhiteBluff-Sheridan for loss of Mabelvale-Sheridan
Event Begin: 2010-05-15 22:00
Event End: 2010-05-17 06:40
Event Duration: 32 Hours

TLR Level	TLR Date	TLR Confirm Time	Run Time	Requested Relief	Remaining Relief	Relief Provided	Total Cuts	
							Tags	MW
TLR Level 3A	05/15/2010 22:00	05/15/2010 21:40	05/15/2010 21:34:21	111.0	0.0	111.1	5	576
TLR Level 3A	05/15/2010 23:00	05/15/2010 22:28	05/15/2010 22:25:57	170.0	0.0	170.4	9	659
TLR Level 3A	05/16/2010 00:00	05/15/2010 23:29	05/15/2010 23:28:16	67.0	0.0	67.1	4	266
TLR Level 3A	05/16/2010 01:00	05/16/2010 00:27	05/16/2010 00:26:36	50.0	0.0	54.5	2	250
TLR Level 3A	05/16/2010 02:00	05/16/2010 01:28	05/16/2010 01:25:24	0.0	0.0	52.7	2	250
TLR Level 3A	05/16/2010 03:00	05/16/2010 02:27	05/16/2010 02:26:23	0.0	0.0	0.0	0	0
TLR Level 3A	05/16/2010 04:00	05/16/2010 03:27	05/16/2010 03:25:58	0.0	0.0	0.0	0	0
TLR Level 3A	05/16/2010 05:00	05/16/2010 04:30	05/16/2010 04:26:25	61.0	0.0	61.1	3	136
TLR Level 3A	05/16/2010 06:00	05/16/2010 05:26	05/16/2010 05:26:09	30.0	0.0	30.1	2	53
TLR Level 3A	05/16/2010 07:00	05/16/2010 06:26	05/16/2010 06:25:42	117.0	0.0	117.0	5	172
TLR Level 3A	05/16/2010 08:00	05/16/2010 07:26	05/16/2010 07:26:06	20.0	0.0	20.0	2	104
TLR Level 3A	05/16/2010 09:00	05/16/2010 08:26	05/16/2010 08:26:21	53.0	0.0	53.0	4	148
TLR Level 3A	05/16/2010 10:00	05/16/2010 09:30	05/16/2010 09:29:57	0.0	0.0	3.6	6	19
TLR Level 1	05/16/2010 11:00	05/16/2010 10:27	05/16/2010 10:27:23	0.0	0.0	0.0	0	0
TLR Level 3B	05/16/2010 21:20	05/16/2010 21:08	05/16/2010 21:06:18	100.0	0.0	100.2	4	354
TLR Level 5B	05/16/2010 22:30	05/16/2010 22:17	05/16/2010 22:17:28	200.0	0.0	205.4	53	90
TLR Level 5A	05/17/2010 00:00	05/16/2010 23:33	05/16/2010 23:29:56	248.0	0.0	301.9	54	523
TLR Level 5A	05/17/2010 01:00	05/17/2010 00:33	05/17/2010 00:30:13	163.0	0.0	229.5	3	300
TLR Level 5A	05/17/2010 02:00	05/17/2010 01:30	05/17/2010 01:25:58	228.0	0.0	233.6	3	300
TLR Level 4	05/17/2010 02:40	05/17/2010 02:29	05/17/2010 02:28:29	0.0	0.0	0.0	0	0
TLR Level 4	05/17/2010 03:40	05/17/2010 03:26	05/17/2010 03:26:09	0.0	0.0	0.0	0	0
TLR Level 4	05/17/2010 04:40	05/17/2010 04:27	05/17/2010 04:26:38	0.0	0.0	0.0	0	0
TLR Level 4	05/17/2010 05:40	05/17/2010 05:28	05/17/2010 05:27:28	0.0	0.0	0.0	0	0
TLR Level 0	05/17/2010 06:40	05/17/2010 06:31	05/17/2010 06:30:47	0.0	0.0	0.0	0	0

Event Summary

FILE SAVED AS: ICTE_1324_20100515_2200.htm

Incident: ICTE_1324_20100515_2200	Date: 05/15/2010	Reliability Coordinator: ICTE
Initial Conditions: N/A		
Flowgate: 1324 - WhiteBluff-Sheridan for loss o...	Rating: 1732	LODF: 79.90%
TLR Direction: Normal		
Effective StartTime: 05/15/2010 22:00	Effective EndTime: 05/17/2010 06:40	TLR Duration: 32 Hours and 40 Minutes

TLR Actions

Confirm Time	Level	Effective Hour	Priority	Schedule						NNL Relief			Market Relief			Flow			TLR Action Comments
				Total Tags Cut / Hold	MW	Relief	RC Cut Acknowledge MW	Relief	Hold	CA	IDC MW	RC Assn MW	Type	Mkt	IDC MW	RC Assn MW	Current	Post Cont.	
May 15 21:40	TLR 3A	NEXT	2-NH Total	5 / 0 576	576	111.1	576	111.1	0	0.0	NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	972	1516	682	N/A
May 15 22:28	TLR 3A	NEXT	1-NS 2-NH 6-NN Total	1 / 0 2 / 0 6 / 0 9 / 0	31 309 319 659	2.1 54.6 88.1 124.7	31 309 319 659	2.1 54.6 88.1 124.7	0	0.0	NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 45.7	0.0 45.7 0.0 45.7	1049	1719	839	N/A
May 15 23:29	TLR 3A	NEXT	6-NN Total	2 / 0 16	16	3.0	16	3.0	0	0.0	NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 10.1	0.0 10.1 0.0 10.1	975	1645	839	N/A
May 16 00:27	TLR 3A	NEXT				NONE				NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	1047	1726	851	N/A	
May 16 01:26	TLR 3A	NEXT				NONE				NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	868	1551	855	N/A	
May 16 02:27	TLR 3A	NEXT				NONE				NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	782	1462	852	N/A	
May 16 03:27	TLR 3A	NEXT				NONE				NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	767	1458	865	N/A	
May 16 04:30	TLR 3A	NEXT	3-ND 6-NN 7-F Total	1 / 0 2 / 0 0 / 1 3 / 1	103 33 0 136	6.7 8.2 0 12.9	103 33 0 136	6.7 8.2 0 12.9	0	0.0	NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 48.2 0.0 48.2	0.0 48.2 0.0 48.2	795	1515	902	N/A
May 16 05:26	TLR 3A	NEXT	2-NH 6-NN 7-F Total	1 / 1 1 / 0 0 / 2 2 / 3	52 1 0 53	2.6 0.2 0 2.8	52 1 0 53	2.6 0.2 0 2.8	26	1.3	NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 27.3 0.0 27.3	0.0 27.3 0.0 27.3	889	1699	889	N/A
May 16 06:26	TLR 3A	NEXT	2-NH 3-ND 6-NN Total	3 / 0 1 / 0 1 / 0 5 / 0	55 103 14 172	2.8 7.0 2.6 12.4	55 103 14 172	2.8 7.0 2.6 12.4	0	0.0	NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 104.6 0.0 104.6	0.0 104.6 0.0 104.6	818	1611	993	N/A
May 16 07:26	TLR 3A	NEXT	2-NH 3-ND 7-F Total	1 / 0 1 / 0 0 / 2 2 / 2	1 103 0 104	0.1 7.0 0 7.1	1 103 0 104	0.1 7.0 0 7.1	0	0.0	NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 12.9 0.0 12.9	0.0 12.9 0.0 12.9	1006	1624	774	N/A
May 16 08:26	TLR 3A	NEXT	1-NS 2-NH 3-ND 6-NN 7-F Total	1 / 0 1 / 0 1 / 0 1 / 0 0 / 1 4 / 1	26 2 103 17 0 148	1.3 0.1 7.0 3.2 0 11.6	26 2 103 17 0 148	1.3 0.1 7.0 3.2 0 11.6	0	0.0	NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 41.4 0.0 41.4	0.0 41.4 0.0 41.4	1043	1644	753	N/A
May 16 09:30	TLR 3A	NEXT	7-F Total	0 / 1 0 / 1	0 0	0.0 0.0	0 0	0.0 0.0	20	2.1	NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	1050	1683	793	N/A
May 16 10:27	TLR 1	CURRENT				NONE				NONE						978	1562	731	N/A
May 16 21:08	TLR 3B	CURRENT	1-NS 2-NH Total	1 / 0 3 / 0 4 / 0	31 323 375	2.6 97.6 100.2	31 323 354	2.6 97.6 100.2	0	0.0	NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	1152	1745	743	N/A
		NEXT	1-NS 2-NH 6-NN 7-F Total	1 / 0 4 / 0 3 / 0 0 / 1 8 / 1	26 380 420 0 375	2.2 106.0 82.0 0 190.3	26 380 420 0 826	2.2 106.0 82.0 0 190.3	0	0.0	NONE	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 82.0 14.0 106.0	0.0 82.0 14.0 106.0				
May 16 22:17	TLR 5B	CURRENT	7-F Total	53 / 0 53 / 0	90 90	18.9 18.9	90 90	18.9 18.9	0	0.0	EES SMEE TVA Total	ED-2 ED-6 FIRM7 Total	SWPP SWPP SWPP	0.0 140.0 5.0 149.1	0.0 140.0 5.0 149.1	1190	1969	968	N/A
		NEXT	1-NS 2-NH 6-NN 7-F Total	2 / 0 4 / 0 3 / 0 9 / 0 17 / 0	162 253 213 56 684	31.2 83.0 40.6 16.9 151.7	162 253 213 56 684	31.2 83.0 40.6 16.9 151.7	0	0.0	NONE								
May 16 23:33	TLR 5A	NEXT	2-NH 6-NN 7-F Total	1 / 0 3 / 0 49 / 0 53 / 0	50 350 73 473	13.2 88.3 14.4 96.0	50 350 73 473	13.2 88.3 14.4 96.0	0	0.0	EES SMEE TVA Total	ED-2 ED-6 FIRM7 FIRM-CREDIT Total	SWPP SWPP SWPP	0.0 160.0 2.4 162.4	0.0 160.0 2.4 162.4	853	1588	921	N/A
May 17 00:33	TLR 5A	NEXT	6-NN Total	1 / 0 1 / 0	50 50	9.7 9.7	50 50	9.7 9.7	0	0.0	NONE	ED-2 ED-6 FIRM7 FIRM-CREDIT Total	SWPP SWPP SWPP	0.0 173.0 0.0 173.0	0.0 173.0 0.0 173.0	833	1555	904	N/A

May 17 01:30	TLR 5A	NEXT	6-NN Total	1 / 0 1 / 0	50 50	9.6 9.6	50 50	9.6 9.6	0 0	0.0 0.0	NONE	ED-2 ED-6 FIRM-7 FIRM-CREDIT Total	SWPP SWPP SWPP SWPP Total	178.0 178.0 0.0 0.0 178.0	178.0 178.0 0.0 0.0 178.0	985	1714	913	N/A
May 17 02:29	TLR 4	CURRENT	NONE								NONE	ED-2 ED-6 FIRM-7 Total	SWPP SWPP SWPP Total	0.0 201.0 0.0 201.0	0.0 201.0 0.0 201.0	957	1626	937	N/A
		NEXT	6-NN Total	4 / 0 4 / 0	310 310	58.9 58.9	310 310	58.9 58.9	0 0	0.0 0.0	NONE	NONE							
May 17 03:20	TLR 4	CURRENT	NONE								NONE	ED-2 ED-6 FIRM-7 Total	SWPP SWPP SWPP Total	0.0 204.0 0.0 204.0	0.0 204.0 0.0 204.0	912	1599	860	N/A
		NEXT	6-NN Total	3 / 0 3 / 0	300 300	54.8 54.8	300 300	54.8 54.8	0 0	0.0 0.0	NONE	NONE							
May 17 04:27	TLR 4	CURRENT	NONE								NONE	ED-2 ED-6 FIRM-7 Total	SWPP SWPP SWPP Total	0.0 207.0 0.0 207.0	0.0 207.0 0.0 207.0	1023	1694	840	N/A
		NEXT	1-NS 6-NN Total	2 / 0 1 / 0 3 / 0	125 13 138	20.4 3.0 23.4	125 13 138	20.4 3.0 23.4	0 0 0	0.0 0.0 0.0	NONE	NONE							
May 17 05:28	TLR 4	CURRENT	NONE								NONE	ED-2 ED-6 FIRM-7 Total	SWPP SWPP SWPP Total	0.0 184.0 11.0 195.0	0.0 184.0 11.0 195.0	918	1638	776	N/A
		NEXT	1-NS 6-NN Total	2 / 0 1 / 0 2 / 0	125 13 125	20.5 3.0 20.5	125 13 125	20.5 3.0 20.5	0 0 0	0.0 0.0 0.0	NONE	NONE							
May 17 06:31	TLR 0	CURRENT	NONE								NONE	NONE				918	1442	659	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	10	526	526	0
2	25	2001	2001	26
3	4	412	412	0
4	0	0	0	0
5	0	0	0	0
6	32	2106	2106	0
7	110	219	219	150
Total	181	5264	5264	176

TLR NNL Totals

CA	NNL Relief	
	IDC MW	RC Ackn MW
EES	73.0	73.0
SMEE	3.0	3.0
TVA	9.0	9.0
Total	85.0	85.0

TLR Market Flow Totals

Market	Type	Market Relief	
		IDC MW	RC Ackn MW
SWPP	ED-2	0.0	0.0
	ED-6	1737.3	1737.2
	FIRM-7	22.5	22.5
Total for SWPP		1759.8	1759.7
Total		1759.8	1759.7

Date	Time	Category	Operator Name	Issue
05/15/10	2230	ICP/LAP Assessment	Dewayne Wood	Assessed as ICP
05/15/10	2234	TLR - 3a	Dewayne Wood	Issued in anticipation of PUPP generation falling off 800MWs on top of hour. Read the following to Milligan at EES, "The ICT RC has issued a TLR Level 3A on Flowgate 1324, WhiteBluff-Sheridan for loss of Mabelvale-Sheridan. An email with the GSF's showing decrement generators with a 5% or greater shift factor have been provided to the Shift Supervisor's email. The TLR curtailed non-firm up to and including priority level 2NH. Consistent with the Supplemental Curtailment Procedure, internal

				non-firm up to and including priority level 2NH should be curtailed and remain curtailed until the TLR level is reduced below a TLR Level 3. Please respond with any action taken identifying and/or curtailing internal non-firm schedules"
05/15/10	2325	TLR - 3a	Dewayne Wood	Read the following to Milligan at EES, "The ICT RC has reissued a TLR Level 3A on Flowgate 1324. An email with the GSF's showing decrement generators with a 5% or greater shift factor has been provided to the Shift Supervisor's email. This TLR curtailed non-firm up to and including priority level 6-NN. Consistent with the Supplemental Curtailment Procedure, internal non-firm up to and including priority level 6-NN should be curtailed and remain curtailed until the TLR level is reduced below a TLR Level 3. Please respond with any action taken identifying and/or curtailing internal non-firm schedules."
05/16/10	0030	TLR - 3a	Dewayne/Keith	re-issued TLR 3a, PC 95%
05/16/10	0130	TLR - 3a	Dewayne/Keith	re-issued TLR 3a, PC 100%
05/16/10	0225	TLR - 3a	Dewayne/Keith	re-issued TLR 3a, PC 90% WhiteBluff U2 in a deslag
05/16/10	0330	TLR - 3a	Dewayne/Keith	re-issued TLR 3a, PC 85% WhiteBluff U2 in a deslag
05/16/10	0430	TLR - 3a	Dewayne/Keith	re-issued TLR 3a, PC 84% WhiteBluff U2 in a deslag
05/16/10	1127	TLR - 1	Mark/Matt	Went from TLR 3A to a TLR 1. Updated Oasis ref. 257918
05/16/10	2210	TLR - 3b	Dewayne/Keith	PC 101%, cutting 6NN, Called Sean@SOC; The ICT RC has issued a TLR Level 3b on Flowgate <1324 WhiteBluff-Sheridan for loss of Mabelvale-Sheridan >, an email with the GSF's showing decrement generators with a 5% or greater shift factor have been provided to the Shift Supervisor's email. The TLR curtailed non-firm up to and including priority level <6NN>. Consistent with the Supplemental Curtailment Procedure, internal non-firm up to and including priority level <6NN> should be curtailed and remain curtailed until the TLR level is reduced below a TLR Level 3. Please respond with any action taken identifying and/or curtailing internal non-firm schedules."
05/16/10	2215	Other	Dewayne/Keith	SOC has identified Tag ET23 off of WhiteBluff (6NN) and is curtailing tag

05/16/10	2317	TLR - 5b	Dewayne/Keith	Issued TLR 5B PC 114%, EES NNL 42.9, SME 1.5, TVA 5.0. TVA dropping Southaven Unit 62 MWs to meet NNL (Jason@TVA)
05/16/10	2353	TLR - 5b	Dewayne/Keith	Spoke with Sean@SOC, noted that when TLR 5b was issued, the NNL obligation was cancelled out when they dropped the WOTAB units along with dropping Whitebluff output. FG relief has not been realized, SOC agreed and will recalculate NNL to provide additional FG relief and meet NNL obligation
05/16/10	2359	TLR - 5b	Dewayne/Keith	Sean@SOC called back, will DEC WhiteBluff output another 400 MWs to provide NNL
05/17/10	0029	TLR - 5a	Dewayne Wood	Issued TLR 5A PC 92%, EES NNL 29.6, SME 1.2, TVA 3.5.
05/17/10	0130	TLR - 5a	Dewayne/Keith	Issued TLR 5a, PC 90% no NNL, still cutting schedules
05/17/10	0230	TLR - 5a	Dewayne/Keith	Re-issued TLR 5a, PC 99%, no NNL, still cutting schedules
05/17/10	0330	TLR - 4	Dewayne/Keith	Issued TLR 4, PC 94%,
05/17/10	0430	TLR - 4	Dewayne/Keith	Re-issued TLR 4, PC 92%
05/17/10	0527	TLR - 4	Dewayne Wood	Reissued TLR 4
05/17/10	0730	TLR - 0	Wayne Johnson	Issued TLR 0, PC 83%