

ICTE TLR 5 Investigation Report
Flowgate 16556
(Russellville E – Russellville S 161kV for the loss of ANO – Ft. Smith 500 kV)
TLR Level 5: August 11, 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 16556 on August 11, 2010. Flowgate 16556 is an Entergy flowgate. The TLR 5 was in effect from 9:23 AM until 10:31 PM on August 11, 2010. Projected post-contingent flows on the Russellville E – Russellville S 161kV for the loss of ANO – Ft. Smith 500 kV 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 335 MVA. Flow on the Limiting Element was 189 MVA. Flow on the Contingent Element was 490 MVA. The LODF was approximately 37%. Post-contingent flow on the Limiting Element was approximately 370 MVA.

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

TLRs levels, timing and relief requested amounts are shown on pages 2 and 3.

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

There was an external forced outage on OKGE's Muskogee – Ft. Smith 345 kV line.

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 Independence and White Bluff.

Event History

Event History									
Issuing RC:		ICTE							
Flowgate:		16556 - Russelville E-Russelville S 161kv FTLO ANO-Ft.Smith 500kv (MKT COOR)							
Event Begin:		2010-08-11 12:00							
Event End:		2010-08-12 00:00							
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 5A	08/11/2010 12:00	08/11/2010 11:37	08/11/2010 11:34:57	82.0	0.0	82.7	21	306	
TLR Level 5A	08/11/2010 13:00	08/11/2010 12:30	08/11/2010 12:27:34	37.0	0.0	83.7	24	333	
TLR Level 5A	08/11/2010 14:00	08/11/2010 13:34	08/11/2010 13:32:43	94.0	0.0	140.2	24	514	
TLR Level 5A	08/11/2010 15:00	08/11/2010 14:29	08/11/2010 14:26:26	64.0	0.0	140.0	24	531	
TLR Level 5A	08/11/2010 16:00	08/11/2010 15:26	08/11/2010 15:26:08	58.0	0.0	135.3	25	514	
TLR Level 5A	08/11/2010 17:00	08/11/2010 16:28	08/11/2010 16:25:31	162.0	0.0	239.3	24	427	
TLR Level 5A	08/11/2010 18:00	08/11/2010 17:29	08/11/2010 17:29:22	65.0	0.0	133.4	18	29	
TLR Level 5A	08/11/2010 18:00	08/11/2010 17:37	08/11/2010 17:34:59	227.0	0.0	230.7	23	415	
TLR Level 5A	08/11/2010 19:00	08/11/2010 18:33	08/11/2010 18:27:38	187.0	0.0	258.0	22	347	
TLR Level 5A	08/11/2010 20:00	08/11/2010 19:30	08/11/2010 19:28:23	158.0	0.0	231.5	16	236	
TLR Level 5A	08/11/2010 21:00	08/11/2010 20:31	08/11/2010 20:28:28	135.0	0.0	192.3	15	136	
TLR Level 5A	08/11/2010 22:00	08/11/2010 21:31	08/11/2010 21:26:56	154.0	0.0	188.6	15	140	
TLR Level 5A	08/11/2010 23:00	08/11/2010 22:31	08/11/2010 22:26:48	48.0	0.0	82.2	10	27	
TLR Level 0	08/12/2010 00:00	08/11/2010 23:30	08/11/2010 23:29:50	0.0	0.0	0.0	0	0	

Event Summary
FILE SAVED AS: ICTE_16556_20100811_1100.htm

Incident: ICTE_16556_20100811_1100 Date: 08/11/2010 Reliability Coordinator: ICTE
 Initial Conditions: N/A
 Flowgate: 16556 - Russeville E-Russeville S... Rating: 335 LODF: 26.67%
 TLR Direction: Normal
 Effective StartTime: 08/11/2010 12:00 Effective EndTime: 08/12/2010 00:00 TLR Duration: 12 Hours and 0 Minutes

TLR Actions

Confirm Time	Level	Effective Hour	Priority	Schedule				N/NL Relief			Market Relief			Flow			TLR Action Comments				
				Total Tags Cut / Hold	IDC Cut	RC Cut Acknowledge	Hold	CA	IDC MW	RC Ack MW	Type	Mt	IDC MW	RC Ack MW	Current	Post Cont.		Cont. Flow			
Aug 11 17:57	TLR SA	NEXT	6-NN 7-F	2 / 0 19 / 0	16 201	0.0 26.2	16 201	0.0 25.2	0 0	0.0 0.0	AEC1 EES SPA	17.0 27.0 2.0	17.0 27.0 2.0	ED-2 ED-6 FIRMAT	SWPP SWPP SWPP	0.0 10.0 0.0	0.0 10.0 0.0	180	329	400	Due to Fast Smith - Malheur outage (LODF actually 37%)
			Total	21 / 0	206	26.1	206	26.1	0	0.0	Total	46.0	46.0	Total	SWPP	10.0	10.0				
Aug 11 17:58	TLR SA	NEXT	6-NN 7-F	1 / 0 23 / 1	5 320	0.4 41.0	5 320	0.4 37.2	0 0	0.0 0.0	AEC1 EES SPA	17.0 40.0 1.0	17.0 40.0 1.0	ED-2 ED-6 FIRMAT	SWPP SWPP SWPP	0.0 10.0 0.0	0.0 10.0 0.0	134	298	505	N/A
			Total	24 / 1	333	27.5	333	27.5	143	7.2	Total	45.0	45.0	Total	SWPP	10.0	10.0				
Aug 11 17:59	TLR SA	NEXT	6-NN 7-F	1 / 0 23 / 1	5 320	0.4 41.0	5 320	0.4 37.2	0 0	0.0 0.0	AEC1 EES SPA	24.0 40.0 1.0	24.0 40.0 1.0	ED-2 ED-6 FIRMAT	SWPP SWPP SWPP	0.0 10.0 0.0	0.0 10.0 0.0	130	302	500	N/A
			Total	24 / 1	514	41.4	514	41.4	9	1.8	Total	75.0	75.0	Total	SWPP	0.0	0.0				
Aug 11 17:59	TLR SA	NEXT	6-NN 7-F	1 / 0 23 / 0	5 320	0.4 41.0	5 320	0.4 37.2	0 0	0.0 0.0	AEC1 EES SPA	25.0 40.0 1.0	25.0 40.0 1.0	ED-2 ED-6 FIRMAT	SWPP SWPP SWPP	0.0 10.0 0.0	0.0 10.0 0.0	126	294	506	N/A
			Total	24 / 0	439	53.1	439	53.1	0	0.0	Total	76.0	76.0	Total	SWPP	0.0	0.0				
Aug 11 17:59	TLR SA	NEXT	6-NN 7-F	1 / 0 23 / 0	5 320	0.4 41.0	5 320	0.4 37.2	0 0	0.0 0.0	AEC1 EES SPA	26.0 41.0 1.0	26.0 41.0 1.0	ED-2 ED-6 FIRMAT	SWPP SWPP SWPP	0.0 10.0 0.0	0.0 10.0 0.0	131	304	508	N/A
			Total	25 / 0	511	42.5	511	42.5	0	0.0	Total	77.0	77.0	Total	SWPP	0.0	0.0				
Aug 11 17:59	TLR SA	NEXT	6-NN 7-F	1 / 0 23 / 0	5 427	0.4 36.3	5 427	0.4 36.3	0 0	0.0 0.0	AEC1 EES SPA	22.0 36.0 1.0	22.0 36.0 1.0	ED-2 ED-6 FIRMAT	SWPP SWPP SWPP	0.0 76.0 0.0	0.0 76.0 0.0	137	214	620	Fast Smith - Malheur RTI. LODF now at 29.57%
			Total	24 / 0	427	36.3	427	36.3	0	0.0	Total	68.0	68.0	Total	SWPP	0.0	0.0				
Aug 11 17:59	TLR SA	NEXT	6-NN 7-F	1 / 0 17 / 0	5 24	0.4 2.1	5 24	0.4 2.1	0 0	0.0 0.0	AEC1 EES	1.0 2.0	1.0 2.0	ED-2 ED-6	SWPP SWPP	0.0 76.0	0.0 76.0	143	328	617	N/A
			Total	18 / 0	29	2.5	29	2.5	0	0.0	Total	3.0	3.0	Total	SWPP	0.0	0.0				
Aug 11 17:57	TLR SA	NEXT	6-NN 7-F	1 / 0 22 / 0	5 410	0.4 35.1	5 410	0.4 35.1	0 0	0.0 0.0	AEC1 EES SPA	23.0 36.0 1.0	23.0 36.0 1.0	ED-2 ED-6 FIRMAT	SWPP SWPP SWPP	0.0 76.0 48.8	0.0 76.0 48.8	147	333	652	N/A
			Total	23 / 0	415	35.5	415	35.5	0	0.0	Total	79.0	79.0	Total	SWPP	0.0	0.0				
Aug 11 18:23	TLR SA	NEXT	6-NN 7-F	1 / 0 21 / 0	5 342	0.4 31.1	5 342	0.4 31.1	0 0	0.0 0.0	AEC1 EES SPA	24.0 37.0 2.0	24.0 37.0 2.0	ED-2 ED-6 FIRMAT	SWPP SWPP SWPP	0.0 76.0 77.5	0.0 76.0 77.5	100	348	609	N/A
			Total	22 / 0	347	31.6	347	31.6	0	0.0	Total	73.0	73.0	Total	SWPP	0.0	0.0				
Aug 11 19:30	TLR SA	NEXT	6-NN 7-F	1 / 0 15 / 0	4 232	0.3 21.0	4 232	0.3 21.0	0 0	0.0 0.0	AEC1 EES SPA	25.0 30.0 2.0	25.0 30.0 2.0	ED-2 ED-6 FIRMAT	SWPP SWPP SWPP	0.0 80.0 62.7	0.0 80.0 62.7	124	293	488	N/A
			Total	16 / 0	236	21.9	236	21.9	0	0.0	Total	57.0	57.0	Total	SWPP	0.0	0.0				
Aug 11 20:31	TLR SA	NEXT	6-NN 7-F	1 / 0 14 / 1	4 132	0.3 12.4	4 132	0.3 12.4	0 0	0.0 8.8	AEC1 EES SPA	15.0 18.0 1.0	15.0 18.0 1.0	ED-2 ED-6 FIRMAT	SWPP SWPP SWPP	0.0 104.0 41.5	0.0 104.0 41.5	133	273	401	N/A
			Total	15 / 1	136	12.7	136	12.7	98	6.8	Total	34.0	34.0	Total	SWPP	146.5	146.5				
Aug 11 21:31	TLR SA	NEXT	6-NN 7-F	1 / 0 14 / 0	2 138	0.2 13.6	2 138	0.2 12.6	0 0	0.0 0.0	AEC1 EES SPA	16.0 18.0 1.0	16.0 18.0 1.0	ED-2 ED-6 FIRMAT	SWPP SWPP SWPP	0.0 126.0 18.7	0.0 126.0 18.7	155	301	511	N/A
			Total	15 / 0	140	13.0	140	13.0	0	0.0	Total	34.0	34.0	Total	SWPP	141.7	141.7				
Aug 11 22:31	TLR SA	NEXT	6-NN 7-F	1 / 0 9 / 0	2 27	0.2 2.4	2 27	0.2 2.4	0 0	0.0 0.0	AEC1 EES	2.0 2.0	2.0 2.0	ED-2 ED-6	SWPP SWPP	0.0 75.5	0.0 75.5	142	241	347	N/A
			Total	10 / 0	27	2.4	27	2.4	0	0.0	Total	5.0	5.0	Total	SWPP	0.0	0.0				
Aug 11 23:30	TLR 0	CURRENT					NONE											166	248	322	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	14	67	67	0
7	247	2888	2888	250
Total	261	3955	3955	250

TLR>NNL Totals

CA	N/NL Relief	
	IDC MW	RC Ack MW
AEC1	295.0	295.0
EES	354.0	354.0
SPA	14.0	14.0
Total	663.0	663.0

TLR Market Flow Totals

Market	Type	Market Relief	
		IDC MW	RC Ack MW
SWPP	ED-2	0.0	0.0
	ED-6	779.7	779.9
	FIRMAT	399.4	399.4
Total for SWPP		1179.2	1179.3
Total		1179.2	1179.3

8/11/10	1130	Assessed as ICP 101%	ICP/LAP Assessment
8/11/10	1137	Issued TLR 5a. PC 110%. EES notified. Oasis Ref #278101 EES tariff notified and Could not Zero Affecting AFCs (FG not in Avoidance). As provided in the email to the Shift Supervisor, the ICT RC has issued a TLR Level 5A on Flowgate 16556 Russellville E-Russellville S 161kv FTLO ANO-Ft.Smith 500kv. At this time Entergy is instructed to curtail the non-firm portion of Schedule 7847. These curtailments should remain in place until the TLR level is reduced below a TLR 3. NNL: EES 26.9, SPA 1.6, AECI 17.2. AECI(TVA) informed that they would have trouble providing total NNL. They said that they could only provide 11 NNL at this time. SPA unable to provide decrement units and can only provide increment units.	TLR - 5a Initial
8/11/10	1151	Brian with TVA called to inform that AECI can provide 11.8 NNL by moving Holden up and Cheatux up. Brian reports this is all the NNL they can provide. Reported to Brian to provide all they could.	NNL
8/11/10	1227	Reissued TLR 5a. PC 92%. NNL: EES 27, SPA .9, AECI 17.4. AECI(TVA) informed that they could now provide 17 NNL.	TLR - 5a Reissue
8/11/10	1332	Reissued TLR 5a. PC 104%. NNL: EES 40.1, SPA 1.4, AECI 33.7. AECI(TVA) informed that they would continue to provide 17 NNL.	TLR - 5a Reissue
8/11/10	1429	ICT RC reissued TLR-5A. PC 102%. NNL: EES 40.3, SPA 1.4, AECI 34.8. AECI(TVA) informed that they would continue to provide 17 NNL.	TLR - 5a Reissue
8/11/10	1526	ICT RC reissued TLR-5A. PC 106%. NNL: EES 40.6, SPA 1.4, AECI 34.5. AECI(TVA) informed that they would continue to provide 17 NNL.	TLR - 5a Reissue
8/11/10	1628	ICT RC reissued TLR-5A. PC 93%. NNL: EES 34.8, SPA 1.2, AECI 31.7. AECI(TVA) informed that they would continue to provide 17 NNL.	TLR - 5a Reissue
8/11/10	1737	ICT RC reissued TLR-5A. PC 93%. NNL: EES 36.1, SPA 1.2, AECI 33.0. AECI(TVA) informed that they would continue to provide 17 NNL.	TLR - 5a Reissue
8/11/10	1828	ICT RC reissued TLR-5A. PC 93%. NNL: EES 36.9, SPA 2.2, AECI 33.8. AECI(TVA) stated that they will continue to provide the current NNL of 17 as they are at their max	TLR - 5a Reissue
8/11/10	1829	no internal non-firm schedules to curtail	Internal Non-Firm
8/11/10	1930	ICT RC reissued TLR-5A. PC 93%. NNL: EES 30.0, SPA 1.7, AECI 25.0 AECI(TVA) stated that they will continue to provide the current NNL of 17 as they are at their max	TLR - 5a Reissue
8/11/10	1931	no new internal non-firm schedules to curtail	Internal Non-Firm
8/11/10	2031	no new internal non-firm schedules to curtail	Internal Non-Firm

8/11/10	2031	ICT RC reissued TLR-5A. PC 93%. NNL: EES 17.6, SPA 1.0, AECI 15.4	TLR - 5a Reissue
8/11/10	2131	ICT RC reissued TLR-5A. PC 93%. NNL: EES 17.9, SPA 1.0, AECI 14.9	TLR - 5a Reissue
8/11/10	2132	no new internal non-firm schedules to curtail	Internal Non-Firm
8/11/10	2231	ICT RC reissued TLR-5A. PC 93%. NNL: EES 2.6, SPA 0.1, AECI 1.6	TLR - 5a Reissue
8/11/10	2232	no new internal non-firm schedules to curtail	Internal Non-Firm
8/11/10	2330	ICT issued TLR 0 PC 73%, notified EES	TLR - 0