

**ICTE TLR 5 Investigation Report**  
**Flowgate 17083**  
**(Woodward - Stuggart Ricuskey 230 kV for the loss of ISES - Keo 500 kV)**  
**TLR Level 5: May 13, 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 17083 on May 13, 2011. Flowgate 17083 is an Entergy flowgate. The TLR 5 was in effect from 6:36 AM until 9:35 PM on May 13, 2011. Projected post-contingent flows on the Woodward - Stuggart Ricuskey 230 kV for the loss of ISES - Keo 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 300 MVA. Flow on the Limiting Element was 229 MVA. Flow on the Contingent Element was 884 MVA. The LODF was approximately 12.5%. Post-contingent flow on the Limiting Element was approximately 337 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 was an unplanned outage 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 was an unplanned outage on the Keo-West Memphis 500kv line that impacted the TLR 5 event. There were also heavy West to East flows on the system. There was a reconfiguration due to high Post Contingent loading on the system that impacted this flowgate. The flowgate that the reconfiguration was implemented for was loaded Post Contingent wise higher than this flowgate.

**5. Procedures implemented prior to hold/curtailment.**

There were not enough 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.**

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 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. This flowgate is not an AFC Flowgate.

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

This TLR was caused by a combination of an unplanned outage, 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 172 MW of NNL, SPA had 42 MW of NNL.

## Event History

**Issuing RC:** ICTE  
**Flowgate:** 17083 - Woodward-Stuggart Ricuskey 230 kV ftlo ISES - Keo  
**Event Begin:** 2011-05-13 07:00  
**Event End:** 2011-05-14 00:00  
**Event Duration:** 17 Hours

TLR Level	TLR Date	TLR Confirm Time	Run Time	Requested Relief	Remaining Relief	Relief Provided	Total Cuts	
							Tags	MW
<a href="#">TLR Level 5A</a>	05/13/2011 07:00	05/13/2011 06:36	05/13/2011 06:32:51	83.0	0.0	83.6	23	988
<a href="#">TLR Level 5A</a>	05/13/2011 08:00	05/13/2011 07:34	05/13/2011 07:29:39	125.0	0.0	141.0	23	1204
<a href="#">TLR Level 5A</a>	05/13/2011 09:00	05/13/2011 08:35	05/13/2011 08:32:34	60.0	0.0	105.2	22	941
<a href="#">TLR Level 5A</a>	05/13/2011 10:00	05/13/2011 09:35	05/13/2011 09:33:22	52.0	0.0	80.0	21	718
<a href="#">TLR Level 5A</a>	05/13/2011 11:00	05/13/2011 10:30	05/13/2011 10:28:17	68.0	0.0	90.5	21	782
<a href="#">TLR Level 5A</a>	05/13/2011 12:00	05/13/2011 11:31	05/13/2011 11:29:54	68.0	0.0	95.0	21	772
<a href="#">TLR Level 5A</a>	05/13/2011 13:00	05/13/2011 12:32	05/13/2011 12:30:02	64.0	0.0	92.8	20	726
<a href="#">TLR Level 5A</a>	05/13/2011 14:00	05/13/2011 13:33	05/13/2011 13:31:23	29.0	0.0	59.0	17	741
<a href="#">TLR Level 5A</a>	05/13/2011 15:00	05/13/2011 14:33	05/13/2011 14:30:02	55.0	0.0	59.1	17	755
<a href="#">TLR Level 5A</a>	05/13/2011 16:00	05/13/2011 15:35	05/13/2011 15:34:13	52.0	0.0	55.7	17	725
<a href="#">TLR Level 5A</a>	05/13/2011 17:00	05/13/2011 16:37	05/13/2011 16:32:20	34.0	0.0	37.1	17	478
<a href="#">TLR Level 5A</a>	05/13/2011 18:00	05/13/2011 17:32	05/13/2011 17:28:16	29.0	0.0	31.3	17	405
<a href="#">TLR Level 5A</a>	05/13/2011 19:00	05/13/2011 18:33	05/13/2011 18:31:55	39.0	0.0	41.1	17	528
<a href="#">TLR Level 5A</a>	05/13/2011 20:00	05/13/2011 19:37	05/13/2011 19:35:01	50.0	0.0	52.5	17	691
<a href="#">TLR Level 5A</a>	05/13/2011 21:00	05/13/2011 20:35	05/13/2011 20:35:01	56.0	0.0	58.7	17	771
<a href="#">TLR Level 5A</a>	05/13/2011 22:00	05/13/2011 21:35	05/13/2011 21:32:35	41.0	0.0	43.6	10	572
<a href="#">TLR Level 1</a>	05/13/2011 23:00	05/13/2011 22:29	05/13/2011 22:28:35	0.0	0.0	0.0	0	0
<a href="#">TLR Level 0</a>	05/14/2011 00:00	05/13/2011 23:36	05/13/2011 23:35:47	0.0	0.0	0.0	0	0

### Event Summary

FILE SAVED AS: ICTE\_17083\_20110513\_0600.htm

Incident: ICTE_17083_20110513_0600	Date: 05/13/2011	Reliability Coordinator: ICTE
Initial Conditions: N/A		
Flowgate: 17083 - Woodward-Stuggart Ricuskey 230...	Rating: 300	LODF: 13.56%
TLR Direction: Normal		
Effective StartTime: 05/13/2011 07:00	Effective EndTime: 05/14/2011 00:00	TLR Duration: 17 Hours and 0 Minutes

### TLR Actions

Cnfirm 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	Hold MW	Relief MW	CA	IDC	RC Ackn MW	Type	Mkt	IDC MW	RC Ackn MW	Current		Post Cont
May 13 06:36	TLR 5A	NEXT	1-NS 2-NH 6-NN 7-F Total	2 / 0 4 / 0 1 / 0 16 / 0 23 / 0	273 383 208 148 988	18.6 24.7 11.9 13.2 68.4	273 383 208 148 988	18.6 24.7 11.9 13.2 68.4	0 0 0 0 0	EES SPA Total	14.0 1.0 15.0	14.0 1.0 15.0	NONE			229	348	884	N/A
May 13 07:34	TLR 5A	NEXT	1-NS 2-NH 6-NN 7-F Total	1 / 0 3 / 0 1 / 0 18 / 0 23 / 0	207 257 206 534 1204	15.7 19.2 12.3 49.3 96.6	207 257 206 534 1204	15.7 19.2 12.3 49.3 96.6	0 0 0 0 0	EES SPA Total	41.0 3.0 44.0	41.0 3.0 44.0	NONE			204	311	789	N/A
May 13 08:55	TLR 5A	NEXT	2-NH 6-NN 7-F Total	3 / 1 1 / 0 18 / 0 22 / 1	152 205 584 941	11.3 12.2 54.7 78.2	152 205 584 941	11.3 12.2 54.7 78.2	62 0 0 62	EES SPA Total	24.0 3.0 27.0	24.0 3.0 27.0	NONE			188	279	891	N/A
May 13 09:55	TLR 5A	NEXT	2-NH 6-NN 7-F Total	2 / 0 1 / 0 18 / 0 21 / 0	52 206 480 718	3.9 12.2 42.3 58.4	52 206 480 718	3.9 12.2 42.3 58.4	0 0 0 0	EES SPA Total	19.0 3.0 22.0	19.0 3.0 22.0	NONE			169	259	888	N/A
May 13 10:50	TLR 5A	NEXT	2-NH 6-NN 7-F Total	2 / 0 1 / 0 18 / 0 21 / 0	52 206 524 782	3.9 12.3 48.1 64.2	52 206 524 782	3.9 12.3 48.1 64.2	0 0 0 0	EES SPA Total	23.0 3.0 26.0	23.0 3.0 26.0	NONE			189	309	891	N/A
May 13 11:51	TLR 5A	NEXT	7-F Total	18 / 0 18 / 0	514 514	49.8 49.8	514 514	49.8 49.8	0 0	EES SPA Total	24.0 4.0 28.0	25.0 4.0 29.0	NONE			180	298	882	N/A
May 13 12:52	TLR 5A	NEXT	7-F Total	18 / 0 18 / 0	519 519	50.3 50.3	519 519	50.3 50.3	0 0	EES SPA Total	28.0 4.0 30.0	28.0 4.0 30.0	NONE			204	342	1022	N/A
May 13 13:33	TLR 5A	NEXT	7-F Total	16 / 0 16 / 0	739 739	55.2 55.2	739 739	55.2 55.2	0 0	SPA Total	4.0 4.0	4.0 4.0	NONE			177	308	973	N/A
May 13 14:33	TLR 5A	NEXT	7-F Total	16 / 0 16 / 0	753 753	55.8 55.8	753 753	55.8 55.8	0 0	SPA Total	3.0 3.0	3.0 3.0	NONE			183	291	948	N/A
May 13 15:35	TLR 5A	NEXT	7-F Total	16 / 0 16 / 0	723 723	52.7 52.7	723 723	52.7 52.7	0 0	SPA Total	3.0 3.0	3.0 3.0	NONE			155	265	811	N/A
May 13 16:37	TLR 5A	NEXT	7-F Total	16 / 0 16 / 0	478 478	35.1 35.1	478 478	35.1 35.1	0 0	SPA Total	2.0 2.0	2.0 2.0	NONE			155	271	854	N/A
May 13 17:32	TLR 5A	NEXT	7-F Total	16 / 0 16 / 0	403 403	29.7 29.7	403 403	29.7 29.7	0 0	SPA Total	1.0 1.0	1.0 1.0	NONE			169	297	944	N/A
May 13 18:33	TLR 5A	NEXT	7-F Total	16 / 0 16 / 0	528 528	38.9 38.9	528 528	38.9 38.9	0 0	SPA Total	2.0 2.0	2.0 2.0	NONE			178	313	1000	N/A
May 13 19:37	TLR 5A	NEXT	7-F Total	16 / 0 16 / 0	689 689	50.1 50.1	689 689	50.1 50.1	0 0	SPA Total	2.0 2.0	2.0 2.0	NONE			171	300	953	N/A
May 13 20:36	TLR 5A	NEXT	7-F Total	16 / 0 16 / 0	789 789	56.2 56.2	789 789	56.2 56.2	0 0	SPA Total	2.0 2.0	2.0 2.0	NONE			180	282	901	N/A
May 13 21:35	TLR 5A	NEXT	7-F Total	10 / 0 10 / 0	572 572	41.5 41.5	572 572	41.5 41.5	0 0	SPA Total	2.0 2.0	2.0 2.0	NONE			160	278	877	N/A
May 13 22:29	TLR 1	CURRENT				NONE				NONE			NONE			115	188	830	N/A
May 13 23:36	TLR 0	CURRENT				NONE				NONE			NONE			148	240	897	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	3	480	480	0
2	14	878	878	62
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	5	1029	1029	0
7	282	8931	8931	0
<b>Total</b>	<b>284</b>	<b>11316</b>	<b>11316</b>	<b>62</b>

### TLR NNL Totals

CA	NNL Relief	
	IDC MW	RC Ackn MW
EES	171.0	172.0
SPA	42.0	42.0
<b>Total</b>	<b>213.0</b>	<b>214.0</b>

05/13/11	0617	ICP/LAP Assessment	Assessed as ICP.
05/13/11	0625	TLR - Redispatch Question	Ask SOC SS to identify any known redispatch options that are available to the transmission customer that will mitigate the loading on the constrained facility. He responded There are no redispatch options available to the transmission customer that will mitigate the loading on the constrained facility. Also asked if there was any conditional firm schedules for the constrained fg. He responds there is no conditional firm at this time.
05/13/11	0632	TLR - 5a Initial	Issued TLR 5 PC 110%. EES NNL 14.1, SPA NNL 1.1. OASIS REF#422450. Keo-WestMemphis out of service due to storm damage. Also reconfigure at stuttgart north for Woodward-Alzheimer if this was put back in service studies show woodward-alzheimer at 132%PC. Heavy flows to the East.
05/13/11	0653	TA Notification	Called ICTE Tariff to zero out non-firm AFC on FG 17083. Glen reports they do not have this FG in their list so can not zero out non-firm AFC at this time. They have contacted their support to look into.
05/13/11	0653	No Internal NonFirm Tags	
05/13/11	0656	NNL	RC North reports SPA is moving 23 up on Truman and 23 down on Broken Bow to satisfy their 1.1 NNL.
05/13/11	0729	TLR - 5a Reissue	Reissued TLR 5 PC 100% EES NNL 41.2, SPA 3.2
05/13/11	0738	No Internal NonFirm Tags	
05/13/11	0832	TLR - 5a Reissue	Reissued TLR 5A. PC 90%. NNL EES 23.7, SPA 3.4. Sent SOC an email to curtail internal non-firm tag 0513868
05/13/11	0856	Internal Non-Firm	Called supervisor at SOC and gave the following: "As provided in the email to the Shift Supervisor, the ICT RC has issued a TLR Level 5 on Flowgate 17083 Woodward-Stuttgart Ricuskey 230kv FTLO ISES-Keo 500kv. At this time Entergy is instructed to curtail the non-firm portion of Schedules 0513868. These curtailments should remain in place until the TLR level is reduced below a TLR 3."
05/13/11	0935	TLR - 5a Reissue	Reissued TLR 5. NNL EES 18.9, SPA 2.8
05/13/11	0935	No Internal NonFirm Tags	
05/13/11	1030	TLR - 5a Reissue	Reissued TLR 5. NNL EES 22.8 SPA 3.4
05/13/11	1030	No Internal NonFirm Tags	
05/13/11	1131	TLR - 5a Reissue	
05/13/11	1131	No Internal NonFirm Tags	Reissued TLR 5. NNL EES 24.5 SPA 3.6
05/13/11	1232	TLR - 5a Reissue	Reissued TLR 5. NNL EES 25.6 SPA 3.8
05/13/11	1232	No Internal NonFirm Tags	
05/13/11	1255	Other	Tva called to ask, us to call LAGN to request them manually curtail TAG #'s MAY84 and MAY 85. LAGN

			did not approve the curtailments in IDC in time.
05/13/11	1333	TLR - 5a Reissue	Reissued TLR 5. NNL EES 0.1 SPA 3.5
05/13/11	1333	No Internal NonFirm Tags	
05/13/11	1433	TLR - 5a Reissue	Reissued TLR 5. NNL EES .1 SPA 3.1
05/13/11	1433	No Internal NonFirm Tags	
05/13/11	1535	TLR - 5a Reissue	Reissued TLR 5. NNL EES 0.1 SPA 2.7
05/13/11	1535	No Internal NonFirm Tags	
05/13/11	1637	TLR - 5a Reissue	
05/13/11	1637	No Internal NonFirm Tags	Reissued TLR 5. NNL EES .1 SPA 1.7
05/13/11	1732	TLR - 5a Reissue	Reissued TLR 5. NNL EES 0.1 SPA 1.4
05/13/11	1732	No Internal NonFirm Tags	
05/13/11	1833	TLR - 5a Reissue	Reissued TLR 5A PC 93%, EES NNL:0.1,SPA NNL:2.0
05/13/11	1847	No Internal NonFirm Tags	
05/13/11	1850	App Issues - EMS	EMS Locked up, contacted help desk
05/13/11	1937	TLR - 5a Reissue	Reissued TLR 5A PC 93%, EES NNL:0.1,SPA NNL:2.1
05/13/11	1938	No Internal NonFirm Tags	
05/13/11	2035	TLR - 5a Reissue	Reissued TLR 5A PC 93%, EES NNL:0.1,SPA NNL:2.2
05/13/11	2036	No Internal NonFirm Tags	
05/13/11	2135	TLR - 5a Reissue	Reissued TLR 5A PC 93%, EES NNL:0.1,SPA NNL:2.0
05/13/11	2136	No Internal NonFirm Tags	
05/13/11	2229	TLR - 1	Issued TLR 1 PC 56%,updated REF# 422450
05/13/11	2336	TLR - 0	Issued TLR 0 PC 72%, updated REF# 422450