

**ICTE TLR 5 Investigation Report
Flowgate 1927
(St Gabriel – Aac Corp 230 kV for the loss of Willow Glen - Waterford 500 kV)
TLR Level 5: April 17, 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 1927 on April 17, 2011. Flowgate 1927 is an Entergy flowgate. The TLR 5 was in effect from 5:15 PM until 10:25 PM on April 17, 2011. Projected post-contingent flows on the St Gabriel – Aac Corp 230 kV line for the loss of the Willow Glen - Waterford 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 685 MVA. Flow on the Limiting Element was 527 MVA. Flow on the Contingent Element was 763 MVA. The LODF was approximately 23%. Post-contingent flow on the Limiting Element was approximately 702 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 was a planned generation outage that impacted the TLR 5 event. Units in the Entergy BA (including internal IPPs and QFs) south of the constraint have an average increment Generator Shift Factor (GSF) of +18%. Units north of the constraint have an average decrement Generator Shift Factor (GSF) of -8%. Generation South of the constraint was for the most part operating at minimum due to load and regulation reasons.

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.

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.

AFC Initialization Summary Report		Firm AFC available on SGAAC_WGWAT (MW)																							
Timestamp		04/17 H80	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Prior Day Ahead	4/15/11 18:45	191	205	219	224	221	223	221	199	175	159	156	375	367	358	346	338	343	349	331	335	362	327	168	196
Day Ahead	4/16/11 11:16	189	203	217	222	219	221	219	197	176	167	164	372	365	355	344	336	341	346	328	332	359	324	165	194
Difference for Prior to Day Ahead																									
Difference for Day Ahead																									

AFC Initialization Summary Report		Sum of impact of firm reservations and rfcalc baseflow on SGAAC_WGWAT (MW)																							
Timestamp		04/17 H80	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Prior Day Ahead	4/15/11 18:45	484	480	466	461	454	462	464	486	507	518	519	310	318	327	339	347	342	336	354	350	323	358	510	459
Day Ahead	4/16/11 11:16	496	482	468	463	466	464	466	488	509	518	521	313	320	330	341	349	344	339	357	353	326	361	520	491
Difference for Prior to Day Ahead		-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
Difference for Day Ahead																									

TFC of SGAAC_WGWAT		
685		
AFC Initialization Summary Report		Average Firm AFC available on SGAAC_WGWAT (MW)
Timestamp		
Prior to Day Ahead	4/15/11 18:45	267
Day Ahead	4/16/11 11:16	265
Difference		-2
AFC Initialization Summary Report		Ave. of impact of firm reservations and rfcalc baseflow on SGAAC_WGWAT (MW)
Timestamp		
Prior to Day Ahead	4/15/11 18:45	418
Day Ahead	4/16/11 11:16	420
Difference		2

		AFC available on SGAAC_WGWAT (MW)																								
AFC Initialization Summary Report Timestamp (CDT)		04/17 HBO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Prior to Day Ahead	4/15/11 18:45	191	205	219	224	221	223	221	199	178	169	166	375	367	358	346	338	343	349	331	335	362	327	168	196	Firm
Day Ahead	4/16/11 11:16	189	203	217	222	219	221	219	197	176	167	164	372	365	355	344	336	341	346	328	332	359	324	165	194	Firm
Operating Horizon	4/17/11 0:21	74	429	424	424	424	424	263	230	207	200	203	373	369	371	371	344	351	356	340	349	377	353	224	239	Non-Firm
Operating Horizon	4/17/11 2:17			423	423	423	423	262	229	206	199	203	372	368	370	370	343	350	355	339	348	376	352	223	238	Non-Firm
Operating Horizon	4/17/11 2:20			144	146	146	146	262	229	206	199	203	372	368	371	371	343	350	355	339	348	376	352	223	238	Non-Firm
Operating Horizon	4/17/11 3:19			144	146	146	263	229	207	200	203	373	368	371	371	343	351	355	339	348	376	352	223	238	Non-Firm	
Operating Horizon	4/17/11 3:41			144	146	146	263	229	207	200	203	373	368	371	371	343	351	355	339	348	376	352	223	238	Non-Firm	
Operating Horizon	4/17/11 4:19				144	146	363	230	207	200	203	373	369	371	371	344	351	356	340	349	377	353	224	239	Non-Firm	
Operating Horizon	4/17/11 5:19						120	385	358	232	225	228	395	389	391	391	363	371	375	360	368	395	373	248	264	Non-Firm
Operating Horizon	4/17/11 7:25								121	381	332	212	379	373	375	374	345	353	357	340	351	379	356	229	244	Non-Firm
Operating Horizon	4/17/11 8:17								121	325	330	388	382	384	384	357	364	368	352	362	389	368	240	241	Non-Firm	
Operating Horizon	4/17/11 9:16									121	325	499	380	384	384	357	364	368	352	362	389	368	240	233	Non-Firm	
Operating Horizon	4/17/11 10:38									121	529	495	385	385	357	365	369	352	363	389	369	240	233	Non-Firm		
Operating Horizon	4/17/11 11:15									121	496	501	385	358	365	369	353	363	390	369	241	234	Non-Firm			
Operating Horizon	4/17/11 12:33												121	524	523	356	364	369	353	363	390	369	241	234	Non-Firm	
Operating Horizon	4/17/11 13:28													107	527	474	362	370	355	365	392	366	237	231	Non-Firm	
Operating Horizon	4/17/11 14:28														115	490	479	370	355	365	392	371	243	236	Non-Firm	
Operating Horizon	4/17/11 15:28															54	484	491	360	368	395	373	245	237	Non-Firm	
Operating Horizon	4/17/11 16:25																19	491	481	369	395	374	245	237	Non-Firm	
Operating Horizon	4/17/11 17:25																	0	0	0	0	0	0	237	Non-Firm	
Operating Horizon	4/17/11 18:51																		0	0	0	0	0	0	237	Non-Firm
Operating Horizon	4/17/11 19:24																			0	0	0	0	0	239	Non-Firm
Operating Horizon	4/17/11 20:23																				0	0	0	0	236	Non-Firm
Operating Horizon	4/17/11 21:22																					0	0	0	365	Non-Firm
Operating Horizon	4/17/11 22:22																						0	431	Non-Firm	
Operating Horizon	4/17/11 23:22																							330	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 along with a generator outage. 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 91 MW of>NNL. LAGN had 14 MW of>NNL.

Event History									
Issuing RC:	ICTE								
Flowgate:	1927 - St. Gabriel-AAC Corp 230 kV for the loss of Willow Glen-Waterford 500 kV								
Event Begin:	2011-04-17 15:25								
Event End:	2011-04-17 23:30								
Event Duration:	8 Hours								
TLR Level	TLR Date	TLR Confirm Time	Run Time	Requested Relief	Remaining Relief	Relief Provided	Total Cuts		
							Tags	MW	
TLR Level 1	04/17/2011 15:25	04/17/2011 15:14	04/17/2011 15:13:28	0.0	0.0	0.0	0	0	
TLR Level 5A	04/17/2011 17:15	04/17/2011 16:45	04/17/2011 16:45:18	14.0	0.0	14.4	6	13	
TLR Level 5A	04/17/2011 18:00	04/17/2011 17:26	04/17/2011 17:25:57	1.0	0.0	14.4	6	13	
TLR Level 5A	04/17/2011 19:00	04/17/2011 18:29	04/17/2011 18:26:59	3.0	0.0	16.6	4	11	
TLR Level 5A	04/17/2011 20:00	04/17/2011 19:26	04/17/2011 19:25:51	0.0	0.0	15.6	4	9	
TLR Level 5A	04/17/2011 21:00	04/17/2011 20:29	04/17/2011 20:26:15	1.0	0.0	15.9	4	11	
TLR Level 5A	04/17/2011 22:00	04/17/2011 21:26	04/17/2011 21:25:40	1.0	0.0	16.0	3	7	
TLR Level 5A	04/17/2011 23:00	04/17/2011 22:26	04/17/2011 22:25:34	3.0	0.0	18.4	3	7	
TLR Level 0	04/17/2011 23:30	04/17/2011 23:19	04/17/2011 23:19:24	0.0	0.0	0.0	0	0	

Event Summary

FILE SAVED AS: ICTE_1927_20110417_1425.htm

Incident: ICTE_1927_20110417_1425	Date: 04/17/2011	Reliability Coordinator: ICTE
Initial Conditions: N/A		
Flowgate: 1927 - St. Gabriel-AAC Corp 230 kV fo...	Rating: 685	LODF: 24.07%
TLR Direction: Normal		
Effective StartTime: 04/17/2011 15:25	Effective EndTime: 04/17/2011 23:30	TLR Duration: 8 Hours and 5 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	MW	Relief	MW	Relief	CA	IDC MW	RC Ackn MW	Type	Mkt	IDC MW	RC Ackn MW	Current	Post Cont.	Cont. Flow	
Apr 17 15:14	TLR 1	CURRENT		NONE								NONE			NONE				525	705	752	N/A
Apr 17 15:45	TLR 5A	NEXT	7-F	8 / 0	13	1.3	13	1.3	0	0.0	EES LAGN	11.0	11.0	NONE				527	710	783	N/A	
			Total	6 / 0	13	1.3	13	1.3	0	0.0	Total	13.0	13.0									
Apr 17 17:20	TLR 5A	NEXT	7-F	8 / 0	13	1.3	13	1.3	0	0.0	EES LAGN	11.0	11.0	NONE				518	895	738	N/A	
			Total	6 / 0	13	1.3	13	1.3	0	0.0	Total	13.0	13.0									
Apr 17 18:29	TLR 5A	NEXT	7-F	4 / 0	11	1.2	11	1.2	0	0.0	EES LAGN	14.0	14.0	NONE				520	895	731	N/A	
			Total	4 / 0	11	1.2	11	1.2	0	0.0	Total	16.0	16.0									
Apr 17 19:20	TLR 5A	NEXT	7-F	4 / 0	9	1.0	9	1.0	0	0.0	EES LAGN	13.0	13.0	NONE				519	892	723	N/A	
			Total	4 / 0	9	1.0	9	1.0	0	0.0	Total	15.0	15.0									
Apr 17 20:29	TLR 5A	NEXT	7-F	4 / 0	11	1.2	11	1.2	0	0.0	EES LAGN	13.0	13.0	NONE				518	888	707	N/A	
			Total	4 / 0	11	1.2	11	1.2	0	0.0	Total	15.0	15.0									
Apr 17 21:20	TLR 5A	NEXT	7-F	3 / 0	7	0.9	7	0.9	0	0.0	EES LAGN	13.0	13.0	NONE				514	885	711	N/A	
			Total	3 / 0	7	0.9	7	0.9	0	0.0	Total	15.0	15.0									
Apr 17 22:20	TLR 5A	NEXT	7-F	3 / 0	7	0.9	7	0.9	0	0.0	EES LAGN	16.0	16.0	NONE				500	859	883	N/A	
			Total	3 / 0	7	0.9	7	0.9	0	0.0	Total	18.0	18.0									
Apr 17 23:19	TLR 0	CURRENT		NONE								NONE			NONE				424	574	624	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	0
1	0	0	0	0	0
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
5	0	0	0	0	0
6	0	0	0	0	0
7	30	71	71	0	0
Total	30	71	71	0	0

TLR NNL Totals

	NNL Relief		
	CA	IDC MW	RC Ackn MW
EES	91.0	91.0	
LAGN	14.0	14.0	
Total	105.0	105.0	

Date	Time	Category	Issue
04/17/11	0130	LAP	LAP closed at 0126 per EES (Sean). Removed from OASIS. Ref 412124.
04/17/11	1327	ICP/LAP Assessment	assessed as ICP
04/17/11	1514	TLR - 1	issued tlr1 pc102% ref# 412378
04/17/11	1645	No Internal NonFirm Tags	
04/17/11	1700	TA Notification	afc's set to 0 till 2300

04/17/11	1700	TLR - Redispatch Question	there are no redispatch options that are available to the customer and no conditional firm schedules
04/17/11	1715	TLR - 5a Initial	after discussion that ees has adopted policy of having the FG under 100% within 30 min we went to TLR 5A EES nnl=11.3 lagn 1.8 pc 102% updated ref 412378
04/17/11	1726	No Internal NonFirm Tags	
04/17/11	1726	TLR - 5a Reissue	re-issue tlr5a pc100% EES NNL +0.1 total 11.4, LAGN NNL 1.8
04/17/11	1826	TLR - 5a Reissue	Reissue TLR5A PC99% EES NNL +2.2 =13.6 LAGN NNL +0.0=1.8
04/17/11	1830	No Internal NonFirm Tags	
04/17/11	1925	TLR - 5a Reissue	Re-issued TLR5A. PC 98%. EES NNL 12.8 LAGN NNL 1.8.
04/17/11	1928	No Internal NonFirm Tags	
04/17/11	2026	No Internal NonFirm Tags	
04/17/11	2026	TLR - 5a Reissue	Re-issue TLR5A. PC 98%. EES NNL 12.9 LAGN NNL 1.8.
04/17/11	2125	No Internal NonFirm Tags	
04/17/11	2125	TLR - 5a Reissue	Re-issued TLR5A. PC 97%. EES NNL 13.4 LAGN NNL 1.8.
04/17/11	2225	No Internal NonFirm Tags	
04/17/11	2225	TLR - 5a Reissue	Re-issue TLR5A. PC 94% EES NNL 15.8 LAGN NNL 1.8
04/17/11	2319	TA Notification	AFC avoidance expired at 2300. AFC's have been re-instated.
04/17/11	2319	TA Notification	Expired at 2300.
04/17/11	2319	TLR - 0	Issued TLR0. PC 81%. Taken out of OASIS REF # 412378.