

ICTE TLR 5 Investigation Report
Flowgate 16272
(Nelson AT1 500/230 kV for the loss of Hartburg - Cypress 500 kV)
TLR Level 5: May 17, 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 16272 on May 17, 2010. Flowgate 16272 is an Entergy flowgate. The TLR 5 was in effect from 12:28 PM until 10:26 PM on May 17, 2010. Projected post-contingent flows on the Nelson AT1 500/230 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 560 MVA. Flow on the Limiting Element was 425 MVA. Flow on the Contingent Element was 578 MVA. The LODF was approximately 28%. Post-contingent flow on the Limiting Element was approximately 587 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.

The Nelson 4 unit tripped offline. Nelson 6 was 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, included below.

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 Sabine and Lewis Creek.

Event History

Event History									
Issuing RC:		ICTE							
Flowgate:		16272 - Nelson AT1 500/230 (ftlo) Hartburg 500kv - Cypress							
Event Begin:		2010-05-17 09:55							
Event End:		2010-05-17 22:45							
Event Duration:		13 Hours							
TLR Level	TLR Date	TLR Confirm Time	Run Time	Requested Relief	Remaining Relief	Relief Provided	Total Cuts		
							Tags	MW	
TLR Level 4	05/17/2010 09:55	05/17/2010 09:51	05/17/2010 09:50:35	0.0	0.0	0.0	3	438	
TLR Level 4	05/17/2010 10:45	05/17/2010 10:36	05/17/2010 10:35:37	0.0	0.0	0.0	0	0	
TLR Level 5A	05/17/2010 12:00	05/17/2010 11:28	05/17/2010 11:28:10	79.0	0.0	80.8	32	326	
TLR Level 5A	05/17/2010 13:00	05/17/2010 12:29	05/17/2010 12:27:09	45.0	0.0	90.8	34	442	
TLR Level 5A	05/17/2010 14:00	05/17/2010 13:27	05/17/2010 13:27:16	31.0	0.0	79.7	32	336	
TLR Level 5A	05/17/2010 15:00	05/17/2010 14:30	05/17/2010 14:28:20	10.0	0.0	58.4	31	292	
TLR Level 5A	05/17/2010 16:00	05/17/2010 15:31	05/17/2010 15:30:06	0.0	0.0	16.2	2	190	
TLR Level 5A	05/17/2010 17:00	05/17/2010 16:35	05/17/2010 16:34:24	69.0	0.0	69.9	32	348	
TLR Level 5A	05/17/2010 18:00	05/17/2010 17:33	05/17/2010 17:31:58	0.0	0.0	45.5	29	288	
TLR Level 5A	05/17/2010 19:00	05/17/2010 18:29	05/17/2010 18:27:19	0.0	0.0	27.7	25	244	
TLR Level 5A	05/17/2010 20:00	05/17/2010 19:30	05/17/2010 19:28:49	13.0	0.0	27.8	25	247	
TLR Level 5A	05/17/2010 21:00	05/17/2010 20:31	05/17/2010 20:28:46	0.0	0.0	18.6	3	350	
TLR Level 5A	05/17/2010 22:00	05/17/2010 21:27	05/17/2010 21:26:58	0.0	0.0	27.7	5	510	
TLR Level 0	05/17/2010 22:45	05/17/2010 22:26	05/17/2010 22:25:35	0.0	0.0	0.0	0	0	

Event Summary

FILE SAVED AS: ICTE_16272_20100517_0955.htm

Incident: ICTE_16272_20100517_0955	Date: 05/17/2010	Reliability Coordinator: ICTE
Initial Conditions: N/A		
Flowgate: 16272 - Nelson AT1 500/230 (ftlo) Hart...	Rating: 560	LODF: 26.99%
TLR Direction: Normal		
Effective StartTime: 05/17/2010 09:55	Effective EndTime: 05/17/2010 22:45	TLR Duration: 12 Hours and 50 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 Actn MW	Type	Mkt	IDC MW	RC Actn MW		Current
May 17 09:51	TLR 4	CURRENT	6-NN	3 / 0	438	86.3	438	86.3	0	0.0	NONE			NONE		476	628	564	N/A
			Total	3 / 0	864	86.3	438	86.3	0	0.0									
May 17 10:36	TLR 4	CURRENT	6-NN	5 / 0	426	83.2	426	83.2	0	0.0	NONE			NONE		508	662	572	N/A
			Total	5 / 0	864	83.2	426	83.2	0	0.0									
May 17 11:28	TLR 5A	NEXT	6-NN	2 / 0	190	21.0	190	21.0	0	0.0	EES	38.0	38.0	NONE		425	581	578	N/A
			7-F	30 / 0	138	15.6	138	15.6	0	0.0	LAGN	6.0	6.0						
Total	32 / 0	326	36.7	326	36.7	0	0.0	Total	44.0	44.0									
May 17 12:29	TLR 5A	NEXT	6-NN	3 / 0	201	28.3	201	28.3	0	0.0	EES	40.0	41.0	NONE		397	541	536	N/A
			7-F	31 / 0	151	15.2	151	15.2	0	0.0	LAGN	6.0	7.0						
Total	34 / 0	442	43.5	442	43.5	0	0.0	Total	46.0	48.0									
May 17 13:27	TLR 5A	NEXT	6-NN	2 / 0	190	18.2	190	18.2	0	0.0	EES	40.0	40.0	NONE		391	538	546	N/A
			7-F	30 / 0	146	14.7	146	14.7	0	0.0	LAGN	6.0	6.0						
Total	32 / 0	336	32.9	336	32.9	0	0.0	Total	46.0	46.0									
May 17 14:30	TLR 5A	NEXT	6-NN	2 / 0	191	18.2	191	18.2	0	0.0	EES	26.0	26.0	NONE		365	496	489	N/A
			7-F	29 / 0	101	10.1	101	10.1	0	0.0	LAGN	4.0	4.0						
Total	31 / 0	292	28.2	292	28.2	0	0.0	Total	30.0	30.0									
May 17 15:31	TLR 5A	NEXT	6-NN	2 / 0	190	16.2	190	16.2	0	0.0	NONE			NONE		318	450	492	N/A
			Total	2 / 0	190	16.2	190	16.2	0	0.0									
May 17 16:35	TLR 5A	NEXT	6-NN	2 / 0	191	10.5	191	10.5	0	0.0	EES	42.0	43.0	NONE		491	620	480	N/A
			7-F	30 / 0	157	9.8	157	9.8	0	0.0	LAGN	7.0	7.0						
Total	32 / 0	348	20.3	348	20.3	0	0.0	Total	49.0	50.0									
May 17 17:33	TLR 5A	NEXT	6-NN	2 / 0	190	10.5	190	10.5	0	0.0	EES	25.0	25.0	NONE		371	469	364	N/A
			7-F	27 / 0	98	6.1	98	6.1	0	0.0	LAGN	4.0	4.0						
Total	29 / 0	288	16.6	288	16.6	0	0.0	Total	29.0	29.0									
May 17 18:29	TLR 5A	NEXT	6-NN	2 / 0	191	10.5	191	10.5	0	0.0	EES	12.0	12.0	NONE		355	454	369	N/A
			7-F	23 / 0	53	3.3	53	3.3	0	0.0	LAGN	2.0	2.0						
Total	25 / 0	244	13.8	244	13.8	0	0.0	Total	14.0	14.0									
May 17 19:30	TLR 5A	NEXT	6-NN	2 / 0	190	10.5	190	10.5	0	0.0	EES	12.0	12.0	NONE		393	501	402	N/A
			7-F	23 / 0	57	3.5	57	3.5	0	0.0	LAGN	2.0	2.0						
Total	25 / 0	247	14.0	247	14.0	0	0.0	Total	14.0	14.0									
May 17 20:31	TLR 5A	NEXT	6-NN	3 / 0	350	18.6	350	18.6	0	0.0	NONE			NONE		378	478	373	N/A
			Total	3 / 0	350	18.6	350	18.6	0	0.0									
May 17 21:27	TLR 5A	NEXT	6-NN	5 / 0	510	27.7	510	27.7	0	0.0	NONE			NONE		410	523	421	N/A
			Total	5 / 0	510	27.7	510	27.7	0	0.0									
May 17 22:26	TLR 0	CURRENT			NONE						NONE		NONE			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	37	3729	3729	0
7	223	899	899	0
Total	260	4628	4628	0

TLR NNL Totals

CA	NNL Relief	
	IDC MW	RC Actn MW
EES	235.0	237.0
LAGN	37.0	38.0
Total	272.0	275.0

Date	Time	Category	Operator Name	Issue
05/17/10	1048	Flow Gate Assessment	Wayne Johnson	Assessed as ICP, PC 111%, EES notified
05/17/10	1050	TLR - 4	Wayne Johnson	Issued TLR 4, PC 113%, Ref 258188, EES notified, The ICT RC has issued a TLR Level 4 on Flowgate <16272 Nelson AT1 500/230 ftlo Hartburg-Cypress 500kv >, 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."
05/17/10	1228	TLR - 5a	Wayne Johnson	Issued TLR 5A, PC 105%, NNL: EES 38, CLEC .3, LAGN 5.9
05/17/10	1327	TLR - 5a	Wayne Johnson	Reissued TLR 5A, PC 98%, NNL: EES 40.5, CLEC .3, LAGN 6.5
05/17/10	1348	NNL	Heath Martin	NRG reports they will increase Carrol St Park from 35MW to 38MW to meet NNL. For HE 15:00
05/17/10	1350	NNL	Wayne Johnson	EES reported that they had moved the Sabine Total from 650 to 830 to meet initial NNL and that they were going to hold steady for HE15.
05/17/10	1412	NNL	Wayne Johnson	Keith at NRG called to inform that they would be increasing Cottonwood by 50mws and increasing Carrol St. from 38 to 53 mws.
05/17/10	1427	TLR - 5a	Wayne Johnson	Reissued TLR 5A, PC 97%, NNL: EES 40.2, CLEC .3, LAGN 6.3
05/17/10	1528	TLR - 5a	Wayne Johnson	Reissued TLR 5A, PC 90%, Inc 30, NNL: EES 25.9, CLEC .2, LAGN 4
05/17/10	1630	TLR - 5a	Wayne Johnson	Reissued TLR 5A, PC 81%, Inc 30, NNL: EES 0, CLEC 0, LAGN 0
05/17/10	1734	TLR - 5a	Wayne Johnson	Reissued TLR 5A, PC 111%, Dec 60, NNL: EES 42.5, CLEC .3, LAGN 6.8
05/17/10	1831	TLR - 5a	Monte/Scott	Reissued TLR 5A, PC 84%, Inc 50, NNL: EES 24.6, CLEC .3, LAGN 4.1, Notified EES (Walter)
05/17/10	1855	Generation	Monte/Scott	EES (Bellot) reported that EES met NNL obligations for TLR 5A on FG 16272 by dropping Lewis Creek Unit to a 280 MW min. Sabine units output minimum setting remains at 1025 MW's
05/17/10	1927	TLR - 5a	Monte/Scott	Reissued TLR 5A, PC 84%, INC 15, NNL: EES 11.9, CLEC .1, LAGN 1.9, Notified EES (Bellot)
05/17/10	1948	Generation	Monte/Scott	EES (Bellot) reported that NNL obligations for TLR 5A on FG 16272 will be met by Dispatching Lewis Creek unit to minimum of 215 MW's. EES also reported that crew is en route to Calciseu unit to perform assessment and they believe a hard ground fault was responsible for the unit trip
05/17/10	2028	TLR - 5a	Monte/Scott	Reissued TLR 5A, PC 84%, INC 15, NNL: EES 11.7, CLEC .1, LAGN 2.1, Notified EES (Bellot)
05/17/10	2030	Generation	Monte/Scott	EES (Bellot) will satisfy leave generation unchanged to satisfy NNL on FG 16272, LA Gen (Tim) reports that they will come off their duct units to satisfy their NNL

05/17/10	2128	TLR - 5a	Monte/Scott	Reissued TLR 5A, PC 84%, no NNL required, notified EES (Bellot)
05/17/10	2226	TLR - 5a	Monte/Scott	Reissued TLR 5A, PC 95%, no NNL required, notified EES (Bellot)
05/17/10	2325	TLR - 0	Monte/Scott	Issued TLR 0 to end TLR 5 PC 62% EES notified Ended REF# 258188, Cleco (Shawn0 and LAGN (Tim) notified