BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company to Establish Minimum Reliability Performance Standards	)))))	Case No. 20-0580-EL-ESS Case No. 20-0581-EL-WVR

REVISED APPLICATION OF OHIO EDISON COMPANY, THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, AND THE TOLEDO EDISON COMPANY TO ESTABLISH COMPANY-SPECIFIC MINIMUM RELIABILITY PERFORMANCE STANDARDS

I. Introduction

Ohio Edison Company ("OE"), The Toledo Edison Company ("TE"), and The Cleveland Electric Illuminating Company ("CEI") (collectively, the "Companies") submit this Revised Application to Establish Company-Specific Minimum Reliability Performance Standards. This Revised Application is filed in accordance with the Attorney Examiner's March 2, 2022 Entry directing the Companies to file within 60 days a revised application that uses reliability performance data from 2017-2021.[1]

The Revised Application proposes revised standards for system average interruption frequency index ("SAIFI")[2] and customer average interruption duration index ("CAIDI")[3] calculated consistent with Commission guidelines.[4] The Revised Application uses a five-year

[1] Case Nos. 20-0580-EL-ESS and 20-0581-EL-WVR, Entry (March 2, 2022).
[2] SAIFI represents the average number of interruptions per customer. SAIFI equals the total number of customer interruptions divided by the total number of customers served. OAC 4901:1-10-10(B)(1).
[3] CAIDI represents the average interruption duration or average time to restore service per interrupted customer. CAIDI equals the sum of customer interruption durations divided by the total number of customer interruptions. OAC 4901:1-10-10(B)(1).
[4] *See, e.g.*, *In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company to Establish Company-Specific Reliability Performance Standards Pursuant to O.A.C. 4901:1-10-10(B)(2),* PUCO Case No. 09-759-EL-ESS, Comments of the Staff of the Public Utilities Commission of Ohio, at 2 (Dec. 17, 2009).

average of historical performance data, addresses factors affecting performance and quantifies adjustments to the historical average. Specifically, the Companies added two standard deviations to account for annual variability in factors outside the Companies' control, in particular, weather and an increasing trend in outages caused by off-right-of-way ("off ROW") trees. The Companies also made an adjustment to account for a 22-year trend of increasing rainfall.

Pursuant to OAC 4901:1-10-10 and the Attorney Examiner's March 2, 2022 Entry, the Companies submit this Revised Application.

II. Revised Application to Revise the Company-Specific Reliability Performance Standards of OE, CEI and TE

A. Revised Standards

1. CEI proposes a revised SAIFI of 1.13 average interruptions per customer per year, and a revised CAIDI of 137.6 average minutes per interruption.

2. OE proposes a revised SAIFI of 1.00 average interruptions per customer per year, and a revised CAIDI of 115.9 average minutes per interruption.

3. TE proposes a revised SAIFI of 0.76 average interruptions per customer per year, and a revised CAIDI of 108.8 average minutes per interruption.

4. The Companies' current and proposed revised standards are summarized below.

Table 1: Current vs. Proposed Standards

Company	Standard	Current	Proposed
CEI	SAIFI	1.30	1.13
	CAIDI	135.00	137.6
OE	SAIFI	1.11	1.00
	CAIDI	114.37	115.9
TE	SAIFI	1.00	0.76
	CAIDI	112.33	108.8

B. The Methodologies Supporting the Revised Standards are Just and Reasonable

5. Each Company's methodology for revising its reliability standards starts with the Company's five-year average historical performance as a baseline. The Companies then add two standard deviations[5] to those figures to account for annual variability in factors outside the Companies' control, in particular, weather and an increasing trend in outages caused by off-ROW trees. While two standard deviations accounts for historical variability in reliability performance, it does not account for future variability outside of historical experiences, nor does it take into account observed, increasing trends in factors impacting the Companies' reliability performance. Therefore, the Companies also include an adjustment above the two standard deviations for SAIFI to account for a 22-year increasing trend in rainfall that is not fully accounted for in the five-year

[5] Standard deviation is a widely accepted method to measure variability from an average. Adding standard deviation to a normalized distribution of data, such as historical performance of an electric system, accounts for variation in the data. Adding two standard deviations to the average accounts for 95% of the possible SAIFI/CAIDI values in each Company's historical performance. In other words, setting a standard based on two standard deviations means there is a 5% chance of exceeding the standard due to chance alone. This is a reliable statistical method to account for observed variability from 2017 through 2021 and expected future variability assuming similar data are observed in future years.

average or the addition of two standard deviations, but which is expected to continue driving variability in annual performance.

6. The use of five-year average historical performance as a baseline is consistent with Commission guidelines.[6] Adjustments to the historical average based on factors affecting performance are also consistent with Commission guidelines.[7] The use of two standard deviations to account for annual variability in factors outside the Companies' control is a widely accepted and reliable statistical method. The additional adjustment to account for future variability outside of historical experiences and the impact of the increasing trend in rainfall is quantifiable and reasonable based on historical data.

7. As detailed below and in the Companies' work papers, these proposed standards are justified by the Companies' current system design, technological advancements, service area geography, and customer perception survey results, as well as the additional adjustments discussed in Paragraph 5 above.[8] This methodology therefore yields just and reasonable reliability standards.

C. Factors that Justify the Companies' Proposed Methodologies

8. Outage Data. The five-year average of historical system performance over the period of 2017 through 2021 was used as the basis to compute the proposed reliability standards. As outlined in O.A.C. 4901:1-10-10(B)(4), these proposed reliability standards exclude transmission outages and major event days as defined by the IEEE Standard 1366 2.5 Beta Methodology.

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[6] *See, e.g.*, *In the Matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company to Establish Company-Specific Reliability Performance Standards Pursuant to O.A.C. 4901:1-10-10(B)(2),* PUCO Case No. 09-759-EL-ESS, Comments of the Staff of the Public Utilities Commission of Ohio, at 2 (Dec. 17, 2009).

[7] *Id.*

[8] In accordance with O.A.C. 4901:1-10, the Companies' historical performance already reflects technological advancements, service area geography and system design. Because the Companies' proposed methodology includes their historical performance, these factors are implicitly reflected in the Companies' proposed standards.

9. Inclusion of Transmission Outages in the Threshold for a Major Event Day ("TMED"). Before the definition of "Major Event" changed in a 2020 Rule Review Order,[9] transmission outages were excluded from an EDU's TMED calculation and were likewise excluded from daily reliability performance. Now, under the revised definition of Major Event (O.A.C. 4901:1-10-01(T)), transmission outages are included in EDUs' TMED calculations, as well as in daily reliability to compare to the TMED.[10] This means, in general, that an EDU's TMED will be higher than it would have been prior to this rule change, making it more difficult to achieve a major event day exclusion and therefore, potentially worsening an EDU's reportable reliability performance.

10. Weather Impacts. Every year, the Companies expect variability in reliability due to weather.[11] Weather characterized as a Major Event is excluded from reported SAIFI and CAIDI performance.[12] An EDU may experience significant weather that does not qualify as a Major Event yet impacts its system. In those instances, the impact of weather is included in the EDU's reported reliability performance. The Companies' standards therefore must account for variability from weather. Applying two standard deviations helps account for the annual variability in historic reliability results but does not account for any additional variability that is expected outside of that five-year period.

11. Weather and Impacts of Off-ROW Trees. The Companies lack property rights to fully mitigate threats from off-ROW trees. Between 2017 and 2021, the Companies had annual increases in outages caused by off-ROW trees and thus, the SAIFI associated with those outages.[13]

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[9] *In the Matter of the Commission's Review of Its Rules for Electric Safety and Service Standards in Chapter 4901:1-10 of the Ohio Administrative Code*, Case No. 17-1842-EL-ORD (Finding and Order issued Feb. 26, 2020).
[10] *See* OAC 4901:1-10-01(T).
[11] *See* Workpaper 2.
[12] *See* O.A.C. 4901:1-10-10. They are also excluded from the Companies' reported CAIDI performance.
[13] *See* Workpaper 2.

The increase in tree outages is correlated to the trend of increasing rainfall per year. Wetter ground conditions increase the likelihood of trees, including healthy trees, uprooting and falling over. While applying two standard deviations accounts for historical variability in reliability performance, it does not account for future variability outside of historical experiences, nor does it take into account observed, increasing trends in factors impacting the Companies' reliability performance. As shown in Workpaper 3, the Companies have observed an increasing trend in the annual amount of rainfall per year over the last 22 years and therefore have included an additional adjustment to SAIFI to fully account for this trend.[14] The adjustment is necessary because the 22-year increasing trend in rainfall is not fully accounted for in the five-year average or addition of two standard deviations, but is expected to continue driving variability in annual performance. The adjustment is calculated as an average yearly increase based on historical rainfall data over a 22-year period, and then multiplied by five to account for the likelihood that this trend will continue, and to be consistent with the five years of historical data included in the baseline.[15]

12. System Design. The Companies' system is designed to meet or exceed the National Electrical Safety Code requirements to provide safe and reliable power to their customers. Further, since the Companies' proposed reliability standards are based on average historical system performance, the effects of system design are implicitly accounted for in the development of the proposed reliability standards.

13. Technological Advancements. The Companies' proposed revisions to their reliability standards reflect historical system performance over the most recent five years. In addition, the Companies are installing advanced technologies through their Grid Mod I program.

[14] See Workpaper 3.
[15] *See* Workpaper 2.

These technologies are still under construction, not fully automated and are only on a subset of the system. Therefore, these advancements are not fully reflected in the proposed standards.

14. Service Area Geography. Since the Companies' proposed reliability standards are based on average historical system performance, the effects of service area geography are implicitly accounted for in the development of the proposed reliability standards.

D. The Companies' Customer Perception Survey Results Support the Revised Reliability Standards

15. In accordance with O.A.C. 4901:1-10-10(B)(4)(a), the Companies' proposed reliability performance standards are consistent with and reflective of their customers' expectations.

16. O.A.C. 4901:1-10-10(B)(4)(b) requires EDUs to periodically conduct customer perception surveys under the Commission Staff's oversight. The Companies' most recent survey was conducted over four quarterly periods starting in the second quarter of 2021.

17. Customer expectations around SAIFI were determined by asking customers, "How many interruptions of more than five minutes would you consider acceptable during a 12-month period?"[16] The responses were translated into a SAIFI value using a weighted average by customer class[17] to reflect customer responses. The results, shown in Table 2 below, demonstrate that the Companies' revised SAIFI standards exceed customer expectations.

Table 2: Customer Perception Survey SAIFI Results

Company	Average Survey SAIFI	Proposed SAIFI
CEI	1.75	1.13
OE	1.91	1.00
TE	1.37	0.76

[16] *See* Workpaper 4 – Customer Survey.
[17] The represented customer classes are "residential" and "commercial."

18. Customer expectations around CAIDI were determined similarly, by asking customers, "What do you consider to be a reasonable length of time to restore power after an outage that is not storm or weather related?" and "What do you consider to be a reasonable length in time to restore power after a storm or weather related outage?"[18]

19. The responses were translated into storm CAIDI and non-storm CAIDI values using weighted averages by customer class[19] to reflect customer responses. The results, shown in Table 3 below, demonstrate that the Companies' revised CAIDI standards are below or well within the range of customer expectations for both storm and non-storm reliability performance.

Table 3: Customer Perception Survey CAIDI Results

Company	Median Survey CAIDI Non-Storm	Median Survey CAIDI Storm	Proposed CAIDI
CEI	120.00	340.20	137.6
OE	120.00	340.20	115.9
TE	120.00	340.20	108.8

III. Conclusion

The Companies respectfully request that the Commission adopt the revised SAIFI and CAIDI standards proposed herein.

[18] *See* Workpaper 4 – Customer Survey.
[19] The represented customer classes are "residential" and "commercial."

WHEREFORE, the Companies ask the Commission to approve this Revised Application.

Respectfully submitted,

/s/ Emily V. Danford

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CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of the foregoing Revised Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and the Toledo Edison Company to Establish Minimum Reliability Performance Standards was filed electronically through the Docketing Information System of the Public Utilities Commission of Ohio on this 2nd day of May, 2022. The PUCO's e-filing system will electronically serve notice of the filing of this document on counsel for all parties.

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Major Event Day Thresholds ("TMED") Calculations - CEI

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
1/1/2012	11,185	825,312	729,274	1.132	0.124					
1/2/2012	1,156	186,005	729,274	0.255	-1.366					
1/3/2012	301	69,769	729,274	0.096	-2.347					
1/4/2012	10	882	729,274	0.001	-6.718					
1/5/2012	98	14,427	729,274	0.020	-3.923					
1/6/2012	131	20,330	729,274	0.028	-3.580					
1/7/2012	149	16,085	729,274	0.022	-3.814					
1/8/2012	70	7,109	729,274	0.010	-4.631					
1/9/2012	59	9,966	729,274	0.014	-4.293					
1/10/2012	411	24,242	729,274	0.033	-3.404					
1/11/2012	545	50,894	729,274	0.070	-2.662					
1/12/2012	951	79,326	729,274	0.109	-2.218					
1/13/2012	3,553	398,744	729,274	0.547	-0.604					
1/14/2012	832	73,608	729,274	0.101	-2.293					
1/15/2012	43	12,160	729,274	0.017	-4.094					
1/16/2012	349	37,811	729,274	0.052	-2.959					
1/17/2012	26,903	5,732,258	729,274	7.860	2.062					
1/18/2012	823	192,103	729,274	0.263	-1.334					
1/19/2012	297	46,616	729,274	0.064	-2.750					
1/20/2012	1,823	132,665	729,274	0.182	-1.704					
1/21/2012	286	12,516	729,274	0.017	-4.065					
1/22/2012	52	4,878	729,274	0.007	-5.007					
1/23/2012	4,054	404,078	729,274	0.554	-0.590					
1/24/2012	160	14,197	729,274	0.019	-3.939					
1/25/2012	1,154	33,290	729,274	0.046	-3.087					
1/26/2012	173	26,915	729,274	0.037	-3.299					
1/27/2012	547	117,950	729,274	0.162	-1.822					
1/28/2012	1,507	112,098	729,274	0.154	-1.873					
1/29/2012	470	69,440	729,274	0.095	-2.352					
1/30/2012	38	4,984	729,274	0.007	-4.986					
1/31/2012	1,462	165,145	729,274	0.226	-1.485					
2/1/2012	292	55,079	729,274	0.076	-2.583					
2/2/2012	192	37,490	729,274	0.051	-2.968					
2/3/2012	27	4,884	729,274	0.007	-5.006					
2/4/2012	109	19,600	729,274	0.027	-3.617					
2/5/2012	2,556	219,364	729,274	0.301	-1.201					
2/6/2012	290	40,522	729,274	0.056	-2.890					
2/7/2012	521	61,821	729,274	0.085	-2.468					
2/8/2012	2,732	173,804	729,274	0.238	-1.434					
2/9/2012	338	59,415	729,274	0.081	-2.508					
2/10/2012	25	3,350	729,274	0.005	-5.383					
2/11/2012	1,359	179,532	729,274	0.246	-1.402					
2/12/2012	107	10,925	729,274	0.015	-4.201					
2/13/2012	1,694	71,163	729,274	0.098	-2.327					
2/14/2012	222	32,080	729,274	0.044	-3.124					
2/15/2012	60	8,059	729,274	0.011	-4.505					
2/16/2012	543	46,403	729,274	0.064	-2.755					
2/17/2012	422	56,943	729,274	0.078	-2.550					
2/18/2012	1,307	177,642	729,274	0.244	-1.412					
2/19/2012	438	55,844	729,274	0.077	-2.569					
2/20/2012	1,827	111,807	729,274	0.153	-1.875					
2/21/2012	423	31,516	729,274	0.043	-3.142					
2/22/2012	771	61,907	729,274	0.085	-2.466					
2/23/2012	11,887	587,501	729,274	0.806	-0.216					
2/24/2012	7,055	722,386	729,274	0.991	-0.009					
2/25/2012	102	23,064	729,274	0.032	-3.454					
2/26/2012	195	14,585	729,274	0.020	-3.912					
2/27/2012	658	94,947	729,274	0.130	-2.039					
2/28/2012	48	6,232	729,274	0.009	-4.762					
2/29/2012	939	104,811	729,274	0.144	-1.940					
3/1/2012	378	62,380	729,274	0.086	-2.459					
3/2/2012	974	128,056	729,274	0.176	-1.740					
3/3/2012	2,730	359,055	729,274	0.492	-0.709					
3/4/2012	2,109	135,323	729,274	0.186	-1.684					
3/5/2012	336	77,456	729,274	0.106	-2.242					
3/6/2012	1,053	87,155	729,274	0.120	-2.124					
3/7/2012	2,081	346,031	729,274	0.474	-0.746					
3/8/2012	1,551	151,702	729,274	0.208	-1.570					
3/9/2012	1,516	162,156	729,274	0.222	-1.503					
3/10/2012	35	5,492	729,274	0.008	-4.889					
3/11/2012	95	11,861	729,274	0.016	-4.119					
3/12/2012	193	20,753	729,274	0.028	-3.559					
3/13/2012	381	65,852	729,274	0.090	-2.405					
3/14/2012	3,388	227,936	729,274	0.313	-1.163					
3/15/2012	18,349	986,193	729,274	1.352	0.302					
3/16/2012	1,641	279,069	729,274	0.383	-0.961					
3/17/2012	124	26,107	729,274	0.036	-3.330					
3/18/2012	419	78,945	729,274	0.108	-2.223					
3/19/2012	1,025	167,360	729,274	0.229	-1.472					
3/20/2012	5,536	105,939	729,274	0.145	-1.929					
3/21/2012	9,918	281,945	729,274	0.387	-0.950					
3/22/2012	509	51,309	729,274	0.070	-2.654					
3/23/2012	2,444	204,828	729,274	0.281	-1.270					
3/24/2012	159	18,267	729,274	0.025	-3.687					
3/25/2012	60	7,858	729,274	0.011	-4.531					
3/26/2012	1,645	101,269	729,274	0.139	-1.974					
3/27/2012	1,777	134,729	729,274	0.185	-1.689					
3/28/2012	1,174	83,145	729,274	0.114	-2.171					
3/29/2012	12,401	300,999	729,274	0.413	-0.885					
3/30/2012	157	27,265	729,274	0.037	-3.286					
3/31/2012	486	68,558	729,274	0.094	-2.364					
4/1/2012	1,673	125,213	729,274	0.172	-1.762					
4/2/2012	1,041	86,922	729,274	0.119	-2.127					
4/3/2012	68	5,916	729,274	0.008	-4.814					
4/4/2012	71	7,550	729,274	0.010	-4.571					
4/5/2012	40	5,665	729,274	0.008	-4.858					
4/6/2012	100	21,761	729,274	0.030	-3.512					
4/7/2012	86	13,476	729,274	0.018	-3.991					
4/8/2012	26	4,201	729,274	0.006	-5.157					
4/9/2012	120	18,068	729,274	0.025	-3.698					
4/10/2012	169	78,088	729,274	0.107	-2.234					
4/11/2012	193	59,843	729,274	0.082	-2.500					
4/12/2012	2,760	66,412	729,274	0.091	-2.396					
4/13/2012	298	39,475	729,274	0.054	-2.916					
4/14/2012	1,948	110,270	729,274	0.151	-1.889					
4/15/2012	349	29,294	729,274	0.040	-3.215					
4/16/2012	7,478	1,068,022	729,274	1.465	0.382					
4/17/2012	533	53,790	729,274	0.074	-2.607					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
2017	-1.994	1.502	5.824
2018	-1.947	1.461	5.511
2019	-1.860	1.431	5.562
2020	-1.825	1.444	5.956
2021	-1.826	1.450	6.051

NOTES

(1) *Mean and Standard Deviation were calculated for previous 5 years of data.

NARRATIVE

(1) The IEEE 2.5 Beta Method was used to exclude major events from reliability data. See O.A.C. 4901:1-10-01(T).

(2) "TMED NEW RULE" means TMEDs calculated under O.A.C. 4901:1-10-01(T).

ASSUMPTIONS

(1) The calculation of TMED included transmission outages in the daily outage data.

(2) The Companies excluded days where the daily SAIDI exceeded the TMED value from their respective SAIFI and CAIDI reliability calculations.

Major Event Day Thresholds ("TMED") Calculations - CEI

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
4/18/2012	292	41,101	729,274	0.056	-2.876										
4/19/2012	3,987	209,180	729,274	0.287	-1.249										
4/20/2012	1,773	131,800	729,274	0.181	-1.711										
4/21/2012	8,043	981,825	729,274	1.346	0.297										
4/22/2012	255	5,241	729,274	0.007	-4.936										
4/23/2012	9,295	1,630,315	729,274	2.236	0.804										
4/24/2012	472	57,870	729,274	0.079	-2.534										
4/25/2012	217	34,235	729,274	0.047	-3.059										
4/26/2012	7,595	310,978	729,274	0.426	-0.852										
4/27/2012	135	18,613	729,274	0.026	-3.668										
4/28/2012	246	29,738	729,274	0.041	-3.200										
4/29/2012	120	15,068	729,274	0.021	-3.879										
4/30/2012	7,993	422,936	729,274	0.580	-0.545										
5/1/2012	502	78,205	729,274	0.107	-2.233										
5/2/2012	196	35,385	729,274	0.049	-3.026										
5/3/2012	1,113	114,960	729,274	0.158	-1.847										
5/4/2012	110	12,172	729,274	0.017	-4.093										
5/5/2012	758	69,541	729,274	0.095	-2.350										
5/6/2012	210	29,482	729,274	0.040	-3.208										
5/7/2012	3,362	397,710	729,274	0.545	-0.606										
5/8/2012	785	98,905	729,274	0.136	-1.998										
5/9/2012	806	158,945	729,274	0.218	-1.523										
5/10/2012	299	33,658	729,274	0.046	-3.076										
5/11/2012	125	22,956	729,274	0.031	-3.458										
5/12/2012	40	4,636	729,274	0.006	-5.058										
5/13/2012	38	5,919	729,274	0.008	-4.814										
5/14/2012	211	30,678	729,274	0.042	-3.169										
5/15/2012	269	48,313	729,274	0.066	-2.714										
5/16/2012	612	47,889	729,274	0.066	-2.723										
5/17/2012	249	33,781	729,274	0.046	-3.072										
5/18/2012	107	20,764	729,274	0.028	-3.559										
5/19/2012	414	33,160	729,274	0.045	-3.091										
5/20/2012	1,070	165,220	729,274	0.227	-1.485										
5/21/2012	313	44,362	729,274	0.061	-2.800										
5/22/2012	1,098	187,534	729,274	0.257	-1.358										
5/23/2012	146	16,378	729,274	0.022	-3.796										
5/24/2012	396	76,481	729,274	0.105	-2.255										
5/25/2012	4,718	532,148	729,274	0.730	-0.315										
5/26/2012	158	38,488	729,274	0.053	-2.942										
5/27/2012	618	117,542	729,274	0.161	-1.825										
5/28/2012	3,743	468,835	729,274	0.643	-0.442										
5/29/2012	13,057	1,052,994	729,274	1.444	0.367										
5/30/2012	516	57,650	729,274	0.079	-2.538										
5/31/2012	43	5,917	729,274	0.008	-4.814										
6/1/2012	10,871	1,340,662	729,274	1.838	0.609										
6/2/2012	557	81,641	729,274	0.112	-2.190										
6/3/2012	2,969	261,763	729,274	0.359	-1.025										
6/4/2012	1,914	150,862	729,274	0.207	-1.576										
6/5/2012	151	25,951	729,274	0.036	-3.336										
6/6/2012	876	140,537	729,274	0.193	-1.647										
6/7/2012	138	9,702	729,274	0.013	-4.320										
6/8/2012	2,075	115,940	729,274	0.159	-1.839										
6/9/2012	253	26,859	729,274	0.037	-3.301										
6/10/2012	901	161,877	729,274	0.222	-1.505										
6/11/2012	322	35,536	729,274	0.049	-3.022										
6/12/2012	288	61,043	729,274	0.084	-2.480										
6/13/2012	719	147,042	729,274	0.202	-1.601										
6/14/2012	10,830	440,463	729,274	0.604	-0.504										
6/15/2012	2,451	374,433	729,274	0.513	-0.667										
6/16/2012	182	34,038	729,274	0.047	-3.065										
6/17/2012	7,218	541,117	729,274	0.742	-0.298										
6/18/2012	4,117	514,368	729,274	0.705	-0.349										
6/19/2012	4,611	452,208	729,274	0.620	-0.478										
6/20/2012	2,898	274,382	729,274	0.376	-0.978										
6/21/2012	3,790	389,190	729,274	0.534	-0.628										
6/22/2012	1,071	55,584	729,274	0.076	-2.574										
6/23/2012	93	9,031	729,274	0.012	-4.391										
6/24/2012	2,282	319,097	729,274	0.438	-0.827										
6/25/2012	739	126,355	729,274	0.173	-1.753										
6/26/2012	4,351	56,511	729,274	0.077	-2.558										
6/27/2012	701	198,817	729,274	0.273	-1.300										
6/28/2012	2,752	537,144	729,274	0.737	-0.306										
6/29/2012	2,196	251,147	729,274	0.344	-1.066										
6/30/2012	5,055	649,656	729,274	0.891	-0.116										
7/1/2012	3,343	300,799	729,274	0.412	-0.886										
7/2/2012	791	113,139	729,274	0.155	-1.863										
7/3/2012	17,279	2,388,604	729,274	3.275	1.186										
7/4/2012	12,794	2,128,626	729,274	2.919	1.071										
7/5/2012	10,437	2,867,866	729,274	3.932	1.369										
7/6/2012	3,019	684,844	729,274	0.939	-0.063										
7/7/2012	8,290	1,531,900	729,274	2.101	0.742										
7/8/2012	3,358	245,734	729,274	0.337	-1.088										
7/9/2012	1,122	208,581	729,274	0.286	-1.252										
7/10/2012	1,660	219,555	729,274	0.301	-1.200										
7/11/2012	1,407	260,474	729,274	0.357	-1.030										
7/12/2012	11,270	1,231,635	729,274	1.689	0.524										
7/13/2012	2,040	374,684	729,274	0.514	-0.666										
7/14/2012	273	36,919	729,274	0.051	-2.983										
7/15/2012	3,650	300,425	729,274	0.412	-0.887										
7/16/2012	7,717	482,055	729,274	0.661	-0.414										
7/17/2012	7,980	1,020,555	729,274	1.399	0.336										
7/18/2012	1,553	256,293	729,274	0.351	-1.046										
7/19/2012	4,386	144,998	729,274	0.199	-1.615										
7/20/2012	736	84,897	729,274	0.116	-2.151										
7/21/2012	1,157	82,844	729,274	0.114	-2.175										
7/22/2012	2,271	305,918	729,274	0.419	-0.869										
7/23/2012	7,560	777,305	729,274	1.066	0.064										
7/24/2012	509	87,486	729,274	0.120	-2.121										
7/25/2012	1,284	198,332	729,274	0.272	-1.302										
7/26/2012	7,186	1,144,088	729,274	1.569	0.450										
7/27/2012	3,455	534,201	729,274	0.733	-0.311										
7/28/2012	3,440	564,157	729,274	0.774	-0.257										
7/29/2012	444	118,607	729,274	0.163	-1.816										
7/30/2012	783	123,666	729,274	0.170	-1.774										
7/31/2012	1,137	75,246	729,274	0.103	-2.271										
8/1/2012	501	77,402	729,274	0.106	-2.243										
8/2/2012	695	100,506	729,274	0.138	-1.982										
8/3/2012	3,308	303,015	729,274	0.416	-0.878										

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
8/4/2012	1,297	157,588	729,274	0.216	-1.532										
8/5/2012	3,663	371,813	729,274	0.510	-0.674										
8/6/2012	239	39,760	729,274	0.055	-2.909										
8/7/2012	2,184	202,932	729,274	0.278	-1.279										
8/8/2012	364	69,729	729,274	0.096	-2.347										
8/9/2012	4,368	426,643	729,274	0.585	-0.536										
8/10/2012	6,962	709,610	729,274	0.973	-0.027										
8/11/2012	808	188,367	729,274	0.258	-1.354										
8/12/2012	376	57,983	729,274	0.080	-2.532										
8/13/2012	1,082	122,752	729,274	0.168	-1.782										
8/14/2012	4,843	195,255	729,274	0.268	-1.318										
8/15/2012	2,545	274,780	729,274	0.377	-0.976										
8/16/2012	101	8,587	729,274	0.012	-4.442										
8/17/2012	235	26,355	729,274	0.036	-3.320										
8/18/2012	297	103,875	729,274	0.142	-1.949										
8/19/2012	285	29,830	729,274	0.041	-3.197										
8/20/2012	316	44,946	729,274	0.062	-2.787										
8/21/2012	772	137,415	729,274	0.188	-1.669										
8/22/2012	508	71,026	729,274	0.097	-2.329										
8/23/2012	185	27,349	729,274	0.038	-3.283										
8/24/2012	390	56,804	729,274	0.078	-2.552										
8/25/2012	1,107	114,467	729,274	0.157	-1.852										
8/26/2012	364	166,258	729,274	0.228	-1.479										
8/27/2012	1,476	171,122	729,274	0.235	-1.450										
8/28/2012	159	36,073	729,274	0.049	-3.007										
8/29/2012	1,243	81,810	729,274	0.112	-2.188										
8/30/2012	146	23,547	729,274	0.032	-3.433										
8/31/2012	2,746	247,605	729,274	0.340	-1.080										
9/1/2012	238	38,006	729,274	0.052	-2.954										
9/2/2012	625	118,104	729,274	0.162	-1.820										
9/3/2012	1,428	165,778	729,274	0.227	-1.481										
9/4/2012	1,978	179,515	729,274	0.246	-1.402										
9/5/2012	1,391	108,631	729,274	0.149	-1.904										
9/6/2012	2,234	189,680	729,274	0.260	-1.347										
9/7/2012	1,357	99,247	729,274	0.136	-1.994										
9/8/2012	11,501	1,682,240	729,274	2.307	0.836										
9/9/2012	728	74,471	729,274	0.102	-2.282										
9/10/2012	3,557	284,470	729,274	0.390	-0.941										
9/11/2012	226	53,446	729,274	0.073	-2.613										
9/12/2012	189	42,288	729,274	0.058	-2.848										
9/13/2012	1,145	104,748	729,274	0.144	-1.940										
9/14/2012	833	88,598	729,274	0.121	-2.108										
9/15/2012	545	73,426	729,274	0.101	-2.296										
9/16/2012	73	13,920	729,274	0.019	-3.959										
9/17/2012	297	39,681	729,274	0.054	-2.911										
9/18/2012	1,914	188,136	729,274	0.258	-1.355										
9/19/2012	438	76,938	729,274	0.105	-2.249										
9/20/2012	1,988	345,644	729,274	0.474	-0.747										
9/21/2012	206	33,415	729,274	0.046	-3.083										
9/22/2012	2,787	250,299	729,274	0.343	-1.069										
9/23/2012	189	39,907	729,274	0.055	-2.905										
9/24/2012	1,110	118,027	729,274	0.162	-1.821										
9/25/2012	1,308	128,189	729,274	0.176	-1.739										
9/26/2012	2,617	377,966	729,274	0.518	-0.657										
9/27/2012	340	32,837	729,274	0.045	-3.100										
9/28/2012	89	8,599	729,274	0.012	-4.440										
9/29/2012	177	34,227	729,274	0.047	-3.059										
9/30/2012	517	124,854	729,274	0.171	-1.765										
10/1/2012	97	11,877	729,274	0.016	-4.117										
10/2/2012	477	68,418	729,274	0.094	-2.366										
10/3/2012	503	37,047	729,274	0.051	-2.980										
10/4/2012	610	52,412	729,274	0.072	-2.633										
10/5/2012	534	75,294	729,274	0.103	-2.271										
10/6/2012	537	90,292	729,274	0.124	-2.089										
10/7/2012	202	26,616	729,274	0.036	-3.311										
10/8/2012	425	45,818	729,274	0.063	-2.767										
10/9/2012	157	47,082	729,274	0.065	-2.740										
10/10/2012	2,164	347,093	729,274	0.476	-0.742										
10/11/2012	312	47,347	729,274	0.065	-2.735										
10/12/2012	157	17,449	729,274	0.024	-3.733										
10/13/2012	118	15,253	729,274	0.021	-3.867										
10/14/2012	5,972	1,268,594	729,274	1.740	0.554										
10/15/2012	3,740	534,766	729,274	0.733	-0.310										
10/16/2012	2,201	132,881	729,274	0.182	-1.703										
10/17/2012	1,076	84,097	729,274	0.115	-2.160										
10/18/2012	691	89,125	729,274	0.122	-2.102										
10/19/2012	2,220	195,660	729,274	0.268	-1.316										
10/20/2012	85	7,878	729,274	0.011	-4.528										
10/21/2012	106	13,732	729,274	0.019	-3.972										
10/22/2012	6,295	239,429	729,274	0.328	-1.114										
10/23/2012	10,166	613,319	729,274	0.841	-0.173										
10/24/2012	1,591	208,911	729,274	0.286	-1.250										
10/25/2012	213	45,922	729,274	0.063	-2.765										
10/26/2012	5,099	388,857	729,274	0.533	-0.629										
10/27/2012	7,189	355,828	729,274	0.488	-0.718										
10/28/2012	3,818	583,992	729,274	0.801	-0.222										
10/29/2012	261,484	602,433,595	729,274	826.073	6.717										
10/30/2012	59,001	164,170,349	729,274	225.115	5.417										
10/31/2012	11,504	21,695,082	729,274	29.749	3.393										
11/1/2012	5,284	15,226,403	729,274	20.879	3.039										
11/2/2012	1,363	1,526,992	729,274	2.094	0.739										
11/3/2012	1,591	711,080	729,274	0.975	-0.025										
11/4/2012	783	367,714	729,274	0.504	-0.685										
11/5/2012	1,280	418,320	729,274	0.574	-0.556										
11/6/2012	833	156,051	729,274	0.214	-1.542										
11/7/2012	1,620	378,138	729,274	0.519	-0.657										
11/8/2012	2,157	167,309	729,274	0.229	-1.472										
11/9/2012	461	62,133	729,274	0.085	-2.463										
11/10/2012	744	79,671	729,274	0.109	-2.214										
11/11/2012	5,906	503,685	729,274	0.691	-0.370										
11/12/2012	8,277	690,353	729,274	0.947	-0.055										
11/13/2012	1,379	64,964	729,274	0.089	-2.418										
11/14/2012	426	48,089	729,274	0.066	-2.719										
11/15/2012	383	37,710	729,274	0.052	-2.962										
11/16/2012	262	44,214	729,274	0.061	-2.803										
11/17/2012	73	9,484	729,274	0.013	-4.342										
11/18/2012	380	47,879	729,274	0.066	-2.723										
11/19/2012	398	33,401	729,274	0.046	-3.083										

Major Event Day Thresholds ("TMED") Calculations - CEI

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
11/20/2012	3,166	351,018	729,274	0.481	-0.731										
11/21/2012	31,697	2,119,248	729,274	2.906	1.067										
11/22/2012	8,720	567,996	729,274	0.779	-0.250										
11/23/2012	3,153	468,121	729,274	0.642	-0.443										
11/24/2012	73	18,861	729,274	0.026	-3.655										
11/25/2012	1,637	123,883	729,274	0.170	-1.773										
11/26/2012	53	9,593	729,274	0.013	-4.331										
11/27/2012	248	56,728	729,274	0.078	-2.554										
11/28/2012	132	15,699	729,274	0.022	-3.838										
11/29/2012	2,662	266,022	729,274	0.365	-1.008										
11/30/2012	209	23,025	729,274	0.032	-3.455										
12/1/2012	105	11,644	729,274	0.016	-4.137										
12/2/2012	3,166	326,118	729,274	0.447	-0.805										
12/3/2012	1,054	137,326	729,274	0.188	-1.670										
12/4/2012	286	42,078	729,274	0.058	-2.853										
12/5/2012	373	63,030	729,274	0.086	-2.448										
12/6/2012	9,048	438,889	729,274	0.602	-0.508										
12/7/2012	832	99,301	729,274	0.136	-1.994										
12/8/2012	1,805	126,557	729,274	0.174	-1.751										
12/9/2012	1,390	164,187	729,274	0.225	-1.491										
12/10/2012	198	14,339	729,274	0.020	-3.929										
12/11/2012	314	33,228	729,274	0.046	-3.089										
12/12/2012	996	201,519	729,274	0.276	-1.286										
12/13/2012	144	14,630	729,274	0.020	-3.909										
12/14/2012	380	47,337	729,274	0.065	-2.735										
12/15/2012	613	76,949	729,274	0.106	-2.249										
12/16/2012	1,775	203,639	729,274	0.279	-1.276										
12/17/2012	121	16,135	729,274	0.022	-3.811										
12/18/2012	1,591	215,521	729,274	0.296	-1.219										
12/19/2012	1,242	91,526	729,274	0.126	-2.075										
12/20/2012	5,753	368,604	729,274	0.505	-0.682										
12/21/2012	7,378	860,484	729,274	1.180	0.165										
12/22/2012	10,086	448,760	729,274	0.615	-0.486										
12/23/2012	1,038	38,999	729,274	0.053	-2.929										
12/24/2012	321	50,518	729,274	0.069	-2.670										
12/25/2012	30	5,312	729,274	0.007	-4.922										
12/26/2012	185	24,539	729,274	0.034	-3.392										
12/27/2012	2,038	126,377	729,274	0.173	-1.753										
12/28/2012	310	26,199	729,274	0.036	-3.326										
12/29/2012	1,508	150,661	729,274	0.207	-1.577										
12/30/2012	608	75,348	729,274	0.103	-2.270										
12/31/2012	493	33,016	729,274	0.045	-3.095										
1/1/2013	5,493	1,707,682	730,745	2.337	0.849										
1/2/2013	2,157	244,058	730,745	0.334	-1.097										
1/3/2013	4,944	259,174	730,745	0.355	-1.037										
1/4/2013	202	21,844	730,745	0.030	-3.510										
1/5/2013	710	54,791	730,745	0.075	-2.591										
1/6/2013	892	31,560	730,745	0.043	-3.142										
1/7/2013	5,315	784,937	730,745	1.074	0.072										
1/8/2013	27	3,960	730,745	0.005	-5.218										
1/9/2013	386	28,316	730,745	0.039	-3.251										
1/10/2013	2,031	29,674	730,745	0.041	-3.204										
1/11/2013	4,963	336,986	730,745	0.461	-0.774										
1/12/2013	3,468	347,174	730,745	0.475	-0.744										
1/13/2013	914	43,768	730,745	0.060	-2.815										
1/14/2013	234	27,579	730,745	0.038	-3.277										
1/15/2013	260	38,002	730,745	0.052	-2.956										
1/16/2013	798	85,047	730,745	0.116	-2.151										
1/17/2013	353	41,812	730,745	0.057	-2.861										
1/18/2013	142	16,123	730,745	0.022	-3.814										
1/19/2013	426	62,178	730,745	0.085	-2.464										
1/20/2013	7,711	1,450,063	730,745	1.984	0.685										
1/21/2013	562	58,255	730,745	0.080	-2.529										
1/22/2013	249	28,588	730,745	0.039	-3.241										
1/23/2013	2,030	20,251	730,745	0.028	-3.586										
1/24/2013	1,018	64,201	730,745	0.088	-2.432										
1/25/2013	2,021	369,220	730,745	0.505	-0.683										
1/26/2013	726	104,538	730,745	0.143	-1.945										
1/27/2013	2,044	123,065	730,745	0.168	-1.781										
1/28/2013	8,911	372,070	730,745	0.509	-0.675										
1/29/2013	2,862	316,374	730,745	0.433	-0.837										
1/30/2013	5,816	862,610	730,745	1.180	0.166										
1/31/2013	1,342	250,071	730,745	0.342	-1.072										
2/1/2013	6,119	67,772	730,745	0.093	-2.378										
2/2/2013	361	48,375	730,745	0.066	-2.715										
2/3/2013	13	1,053	730,745	0.001	-6.542										
2/4/2013	57	4,850	730,745	0.007	-5.015										
2/5/2013	53	8,678	730,745	0.012	-4.433										
2/6/2013	43	10,497	730,745	0.014	-4.243										
2/7/2013	602	73,953	730,745	0.101	-2.291										
2/8/2013	894	106,851	730,745	0.146	-1.923										
2/9/2013	1,098	82,202	730,745	0.112	-2.185										
2/10/2013	1,187	120,311	730,745	0.165	-1.804										
2/11/2013	2,074	316,593	730,745	0.433	-0.836										
2/12/2013	162	15,227	730,745	0.021	-3.871										
2/13/2013	92	8,251	730,745	0.011	-4.484										
2/14/2013	1,319	116,198	730,745	0.159	-1.839										
2/15/2013	364	49,825	730,745	0.068	-2.686										
2/16/2013	78	10,715	730,745	0.015	-4.222										
2/17/2013	2,228	134,983	730,745	0.185	-1.689										
2/18/2013	163	18,378	730,745	0.025	-3.683										
2/19/2013	7,660	628,499	730,745	0.860	-0.151										
2/20/2013	224	38,524	730,745	0.053	-2.943										
2/21/2013	78	12,061	730,745	0.017	-4.104										
2/22/2013	493	62,933	730,745	0.086	-2.452										
2/23/2013	68	13,360	730,745	0.018	-4.002										
2/24/2013	1,070	84,304	730,745	0.115	-2.160										
2/25/2013	1,582	192,089	730,745	0.263	-1.336										
2/26/2013	6,283	527,358	730,745	0.722	-0.326										
2/27/2013	543	85,128	730,745	0.116	-2.150										
2/28/2013	146	9,669	730,745	0.013	-4.325										
3/1/2013	332	32,924	730,745	0.045	-3.100										
3/2/2013	74	7,912	730,745	0.011	-4.526										
3/3/2013	170	21,740	730,745	0.030	-3.515										
3/4/2013	48	8,333	730,745	0.011	-4.474										
3/5/2013	195	37,128	730,745	0.051	-2.980										
3/6/2013	670	37,479	730,745	0.051	-2.970										
3/7/2013	1,662	94,692	730,745	0.130	-2.043										

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
3/8/2013	161	24,193	730,745	0.033	-3.408										
3/9/2013	193	27,923	730,745	0.038	-3.265										
3/10/2013	182	32,307	730,745	0.044	-3.119										
3/11/2013	1,026	138,905	730,745	0.190	-1.660										
3/12/2013	1,217	132,897	730,745	0.182	-1.704										
3/13/2013	125	15,103	730,745	0.021	-3.879										
3/14/2013	136	17,173	730,745	0.024	-3.751										
3/15/2013	721	55,312	730,745	0.076	-2.581										
3/16/2013	195	28,550	730,745	0.039	-3.242										
3/17/2013	573	63,157	730,745	0.086	-2.448										
3/18/2013	3,839	351,528	730,745	0.481	-0.732										
3/19/2013	3,486	270,612	730,745	0.370	-0.993										
3/20/2013	139	21,169	730,745	0.029	-3.542										
3/21/2013	436	58,290	730,745	0.080	-2.529										
3/22/2013	9	681	730,745	0.001	-6.978										
3/23/2013	161	13,674	730,745	0.019	-3.979										
3/24/2013	1,924	75,408	730,745	0.103	-2.271										
3/25/2013	618	68,550	730,745	0.094	-2.367										
3/26/2013	321	38,279	730,745	0.052	-2.949										
3/27/2013	117	21,115	730,745	0.029	-3.544										
3/28/2013	126	20,576	730,745	0.028	-3.570										
3/29/2013	289	47,749	730,745	0.065	-2.728										
3/30/2013	76	5,187	730,745	0.007	-4.948										
3/31/2013	242	25,718	730,745	0.035	-3.347										
4/1/2013	51	7,403	730,745	0.010	-4.592										
4/2/2013	42	3,660	730,745	0.005	-5.297										
4/3/2013	72	9,770	730,745	0.013	-4.315										
4/4/2013	1,150	106,326	730,745	0.146	-1.928										
4/5/2013	84	9,741	730,745	0.013	-4.318										
4/6/2013	2,600	155,317	730,745	0.213	-1.549										
4/7/2013	1,593	232,399	730,745	0.318	-1.146										
4/8/2013	914	68,376	730,745	0.094	-2.369										
4/9/2013	135	21,682	730,745	0.030	-3.518										
4/10/2013	11,385	791,239	730,745	1.083	0.080										
4/11/2013	1,378	127,141	730,745	0.174	-1.749										
4/12/2013	535	60,438	730,745	0.083	-2.492										
4/13/2013	337	26,178	730,745	0.036	-3.329										
4/14/2013	92	7,407	730,745	0.010	-4.592										
4/15/2013	260	45,793	730,745	0.063	-2.770										
4/16/2013	601	46,114	730,745	0.063	-2.763										
4/17/2013	6,055	239,577	730,745	0.328	-1.115										
4/18/2013	1,143	136,921	730,745	0.187	-1.675										
4/19/2013	1,320	100,906	730,745	0.138	-1.980										
4/20/2013	261	37,611	730,745	0.051	-2.967										
4/21/2013	2,302	179,998	730,745	0.246	-1.401										
4/22/2013	921	56,935	730,745	0.078	-2.552										
4/23/2013	58	3,765	730,745	0.005	-5.268										
4/24/2013	213	26,137	730,745	0.036	-3.331										
4/25/2013	441	69,662	730,745	0.095	-2.350										
4/26/2013	577	99,598	730,745	0.136	-1.993										
4/27/2013	131	15,478	730,745	0.021	-3.855										
4/28/2013	46	6,677	730,745	0.009	-4.695										
4/29/2013	225	28,868	730,745	0.040	-3.231										
4/30/2013	98	7,198	730,745	0.010	-4.620										
5/1/2013	1,025	90,346	730,745	0.124	-2.090										
5/2/2013	82	12,208	730,745	0.017	-4.092										
5/3/2013	92	17,167	730,745	0.023	-3.751										
5/4/2013	103	17,266	730,745	0.024	-3.745										
5/5/2013	141	19,653	730,745	0.027	-3.616										
5/6/2013	193	17,416	730,745	0.024	-3.737										
5/7/2013	139	25,814	730,745	0.035	-3.343										
5/8/2013	3,001	348,789	730,745	0.477	-0.740										
5/9/2013	615	46,282	730,745	0.063	-2.759										
5/10/2013	1,516	164,876	730,745	0.226	-1.489										
5/11/2013	880	81,325	730,745	0.111	-2.196										
5/12/2013	1,451	165,031	730,745	0.226	-1.488										
5/13/2013	547	39,319	730,745	0.054	-2.922										
5/14/2013	789	115,320	730,745	0.158	-1.846										
5/15/2013	3,919	154,175	730,745	0.211	-1.556										
5/16/2013	531	154,442	730,745	0.211	-1.554										
5/17/2013	161	19,255	730,745	0.026	-3.636										
5/18/2013	8,619	305,706	730,745	0.418	-0.871										
5/19/2013	6,055	501,296	730,745	0.686	-0.377										
5/20/2013	4,053	348,313	730,745	0.477	-0.741										
5/21/2013	29,875	960,239	730,745	1.314	0.273										
5/22/2013	7,057	629,245	730,745	0.861	-0.150										
5/23/2013	6,982	581,118	730,745	0.795	-0.229										
5/24/2013	535	107,067	730,745	0.147	-1.921										
5/25/2013	196	41,905	730,745	0.057	-2.859										
5/26/2013	609	121,376	730,745	0.166	-1.795										
5/27/2013	1,089	80,186	730,745	0.110	-2.210										
5/28/2013	1,945	121,345	730,745	0.166	-1.795										
5/29/2013	940	114,988	730,745	0.157	-1.849										
5/30/2013	1,554	184,228	730,745	0.252	-1.378										
5/31/2013	13,117	1,120,897	730,745	1.534	0.428										
6/1/2013	2,490	326,209	730,745	0.446	-0.807										
6/2/2013	1,893	280,109	730,745	0.383	-0.959										
6/3/2013	4,829	235,912	730,745	0.323	-1.131										
6/4/2013	1,991	103,509	730,745	0.142	-1.954										
6/5/2013	237	26,345	730,745	0.036	-3.323										
6/6/2013	7,601	503,698	730,745	0.689	-0.372										
6/7/2013	781	118,018	730,745	0.162	-1.823										
6/8/2013	991	80,492	730,745	0.110	-2.206										
6/9/2013	876	104,350	730,745	0.143	-1.946										
6/10/2013	235	39,376	730,745	0.054	-2.921										
6/11/2013	515	48,810	730,745	0.067	-2.706										
6/12/2013	3,209	464,346	730,745	0.635	-0.453										
6/13/2013	6,300	858,701	730,745	1.175	0.161										
6/14/2013	2,047	80,409	730,745	0.110	-2.207										
6/15/2013	1,126	206,221	730,745	0.282	-1.265										
6/16/2013	1,788	114,526	730,745	0.157	-1.853										
6/17/2013	9,046	1,873,336	730,745	2.564	0.941										
6/18/2013	2,203	87,606	730,745	0.120	-2.121										
6/19/2013	85	13,577	730,745	0.019	-3.986										
6/20/2013	2,506	228,685	730,745	0.313	-1.162										
6/21/2013	6,982	431,038	730,745	0.590	-0.528										
6/22/2013	1,207	185,269	730,745	0.254	-1.372										
6/23/2013	3,183	376,207	730,745	0.515	-0.664										

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
6/24/2013	702	138,251	730,745	0.189	-1.665										
6/25/2013	42,132	14,401,792	730,745	19.708	2.981										
6/26/2013	3,216	541,725	730,745	0.741	-0.299										
6/27/2013	27,283	6,499,818	730,745	8.895	2.185										
6/28/2013	956	96,150	730,745	0.132	-2.028										
6/29/2013	2,442	538,721	730,745	0.737	-0.305										
6/30/2013	434	62,058	730,745	0.085	-2.466										
7/1/2013	205	72,234	730,745	0.099	-2.314										
7/2/2013	5,245	254,797	730,745	0.349	-1.054										
7/3/2013	1,125	214,065	730,745	0.293	-1.228										
7/4/2013	1,319	194,782	730,745	0.267	-1.322										
7/5/2013	742	137,083	730,745	0.188	-1.673										
7/6/2013	447	76,337	730,745	0.104	-2.259										
7/7/2013	222	53,585	730,745	0.073	-2.613										
7/8/2013	813	168,382	730,745	0.230	-1.468										
7/9/2013	4,105	753,995	730,745	1.032	0.031										
7/10/2013	22,682	5,598,700	730,745	7.662	2.036										
7/11/2013	1,641	272,659	730,745	0.373	-0.986										
7/12/2013	3,057	267,963	730,745	0.367	-1.003										
7/13/2013	516	67,608	730,745	0.093	-2.380										
7/14/2013	864	120,698	730,745	0.165	-1.801										
7/15/2013	612	107,371	730,745	0.147	-1.918										
7/16/2013	3,328	378,129	730,745	0.517	-0.659										
7/17/2013	10,652	511,751	730,745	0.700	-0.356										
7/18/2013	2,172	381,928	730,745	0.523	-0.649										
7/19/2013	2,923	526,889	730,745	0.721	-0.327										
7/20/2013	17,183	5,978,483	730,745	8.181	2.102										
7/21/2013	1,593	216,642	730,745	0.296	-1.216										
7/22/2013	3,394	346,918	730,745	0.475	-0.745										
7/23/2013	3,412	498,451	730,745	0.682	-0.383										
7/24/2013	2,165	313,031	730,745	0.428	-0.848										
7/25/2013	221	17,588	730,745	0.024	-3.727										
7/26/2013	186	18,365	730,745	0.025	-3.684										
7/27/2013	1,364	140,643	730,745	0.192	-1.648										
7/28/2013	109	15,596	730,745	0.021	-3.847										
7/29/2013	869	119,347	730,745	0.163	-1.812										
7/30/2013	201	46,785	730,745	0.064	-2.749										
7/31/2013	257	85,887	730,745	0.118	-2.141										
8/1/2013	5,731	388,475	730,745	0.532	-0.632										
8/2/2013	643	112,771	730,745	0.154	-1.869										
8/3/2013	367	54,168	730,745	0.074	-2.602										
8/4/2013	2,922	251,815	730,745	0.345	-1.065										
8/5/2013	305	26,628	730,745	0.036	-3.312										
8/6/2013	323	49,438	730,745	0.068	-2.693										
8/7/2013	5,908	321,539	730,745	0.440	-0.821										
8/8/2013	287	24,908	730,745	0.034	-3.379										
8/9/2013	1,475	168,919	730,745	0.231	-1.465										
8/10/2013	1,166	90,015	730,745	0.123	-2.094										
8/11/2013	141	17,632	730,745	0.024	-3.724										
8/12/2013	751	60,904	730,745	0.083	-2.485										
8/13/2013	10,513	948,751	730,745	1.298	0.261										
8/14/2013	358	58,568	730,745	0.080	-2.524										
8/15/2013	296	20,336	730,745	0.028	-3.582										
8/16/2013	218	50,699	730,745	0.069	-2.668										
8/17/2013	1,862	403,377	730,745	0.552	-0.594										
8/18/2013	911	43,869	730,745	0.060	-2.813										
8/19/2013	186	29,559	730,745	0.040	-3.208										
8/20/2013	143	19,958	730,745	0.027	-3.600										
8/21/2013	1,260	198,386	730,745	0.271	-1.304										
8/22/2013	1,559	65,062	730,745	0.089	-2.419										
8/23/2013	568	81,295	730,745	0.111	-2.196										
8/24/2013	1,168	109,342	730,745	0.150	-1.900										
8/25/2013	216	28,982	730,745	0.040	-3.227										
8/26/2013	173	24,163	730,745	0.033	-3.409										
8/27/2013	5,892	728,203	730,745	0.997	-0.003										
8/28/2013	3,910	311,399	730,745	0.426	-0.853										
8/29/2013	1,320	177,919	730,745	0.243	-1.413										
8/30/2013	2,027	233,522	730,745	0.320	-1.141										
8/31/2013	1,123	48,824	730,745	0.067	-2.706										
9/1/2013	3,079	359,091	730,745	0.491	-0.710										
9/2/2013	1,649	115,679	730,745	0.158	-1.843										
9/3/2013	464	42,366	730,745	0.058	-2.848										
9/4/2013	1,203	136,793	730,745	0.187	-1.676										
9/5/2013	367	42,361	730,745	0.058	-2.848										
9/6/2013	1,593	110,811	730,745	0.152	-1.886										
9/7/2013	49	4,614	730,745	0.006	-5.065										
9/8/2013	1,015	107,287	730,745	0.147	-1.919										
9/9/2013	225	67,339	730,745	0.092	-2.384										
9/10/2013	18,925	3,320,035	730,745	4.543	1.514										
9/11/2013	1,772	136,194	730,745	0.186	-1.680										
9/12/2013	6,802	1,078,785	730,745	1.476	0.390										
9/13/2013	894	265,019	730,745	0.363	-1.014										
9/14/2013	354	68,366	730,745	0.094	-2.369										
9/15/2013	106	17,644	730,745	0.024	-3.724										
9/16/2013	2,790	369,380	730,745	0.505	-0.682										
9/17/2013	2,204	46,079	730,745	0.063	-2.764										
9/18/2013	211	30,146	730,745	0.041	-3.188										
9/19/2013	3,904	87,934	730,745	0.120	-2.117										
9/20/2013	6,839	463,194	730,745	0.634	-0.456										
9/21/2013	3,084	470,760	730,745	0.644	-0.440										
9/22/2013	164	20,953	730,745	0.029	-3.552										
9/23/2013	161	19,497	730,745	0.027	-3.624										
9/24/2013	6,693	180,426	730,745	0.247	-1.399										
9/25/2013	12,023	435,558	730,745	0.596	-0.517										
9/26/2013	1,558	90,185	730,745	0.123	-2.092										
9/27/2013	188	22,705	730,745	0.031	-3.471										
9/28/2013	445	36,315	730,745	0.050	-3.002										
9/29/2013	386	102,766	730,745	0.141	-1.962										
9/30/2013	79	16,079	730,745	0.022	-3.817										
10/1/2013	409	67,429	730,745	0.092	-2.383										
10/2/2013	1,009	130,727	730,745	0.179	-1.721										
10/3/2013	299	35,572	730,745	0.049	-3.023										
10/4/2013	189	37,146	730,745	0.051	-2.979										
10/5/2013	70	23,463	730,745	0.032	-3.439										
10/6/2013	1,623	311,023	730,745	0.426	-0.854										
10/7/2013	1,322	234,031	730,745	0.320	-1.139										
10/8/2013	737	116,024	730,745	0.159	-1.840										
10/9/2013	54	7,537	730,745	0.010	-4.574										

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
10/10/2013	136	22,460	730,745	0.031	-3.482										
10/11/2013	2,317	208,346	730,745	0.285	-1.255										
10/12/2013	164	23,732	730,745	0.032	-3.427										
10/13/2013	3,504	234,186	730,745	0.320	-1.138										
10/14/2013	163	22,736	730,745	0.031	-3.470										
10/15/2013	282	29,376	730,745	0.040	-3.214										
10/16/2013	1,351	270,900	730,745	0.371	-0.992										
10/17/2013	283	45,078	730,745	0.062	-2.786										
10/18/2013	206	27,797	730,745	0.038	-3.269										
10/19/2013	150	39,696	730,745	0.054	-2.913										
10/20/2013	324	72,363	730,745	0.099	-2.312										
10/21/2013	218	24,821	730,745	0.034	-3.382										
10/22/2013	4,715	344,958	730,745	0.472	-0.751										
10/23/2013	382	61,321	730,745	0.084	-2.478										
10/24/2013	64,995	63,501,160	730,745	86.899	4.465										
10/25/2013	636	160,688	730,745	0.220	-1.515										
10/26/2013	2,196	496,532	730,745	0.679	-0.386										
10/27/2013	374	72,411	730,745	0.099	-2.312										
10/28/2013	247	40,199	730,745	0.055	-2.900										
10/29/2013	218	36,396	730,745	0.050	-3.000										
10/30/2013	2,023	175,006	730,745	0.239	-1.429										
10/31/2013	10,187	1,322,355	730,745	1.810	0.593										
11/1/2013	8,895	1,772,696	730,745	2.426	0.886										
11/2/2013	234	33,719	730,745	0.046	-3.076										
11/3/2013	370	54,187	730,745	0.074	-2.602										
11/4/2013	976	64,546	730,745	0.088	-2.427										
11/5/2013	4,377	116,495	730,745	0.159	-1.836										
11/6/2013	3,065	332,516	730,745	0.455	-0.787										
11/7/2013	2,476	268,779	730,745	0.368	-1.000										
11/8/2013	438	32,521	730,745	0.045	-3.112										
11/9/2013	3,598	210,782	730,745	0.288	-1.243										
11/10/2013	9,561	527,327	730,745	0.722	-0.326										
11/11/2013	6,567	340,626	730,745	0.466	-0.763										
11/12/2013	754	88,694	730,745	0.121	-2.109										
11/13/2013	727	113,657	730,745	0.156	-1.861										
11/14/2013	330	44,153	730,745	0.060	-2.806										
11/15/2013	533	50,667	730,745	0.069	-2.669										
11/16/2013	126	19,684	730,745	0.027	-3.614										
11/17/2013	38,630	12,105,882	730,745	16.566	2.807										
11/18/2013	5,192	1,613,047	730,745	2.207	0.792										
11/19/2013	521	72,981	730,745	0.100	-2.304										
11/20/2013	806	91,215	730,745	0.125	-2.081										
11/21/2013	313	61,524	730,745	0.084	-2.475										
11/22/2013	2,556	299,896	730,745	0.410	-0.891										
11/23/2013	1,114	215,853	730,745	0.295	-1.219										
11/24/2013	339	47,896	730,745	0.066	-2.725										
11/25/2013	262	38,555	730,745	0.053	-2.942										
11/26/2013	231	30,928	730,745	0.042	-3.162										
11/27/2013	326	35,049	730,745	0.048	-3.037										
11/28/2013	22	2,402	730,745	0.003	-5.718										
11/29/2013	498	53,556	730,745	0.073	-2.613										
11/30/2013	9,959	754,421	730,745	1.032	0.032										
12/1/2013	142	14,251	730,745	0.020	-3.937										
12/2/2013	63	9,707	730,745	0.013	-4.321										
12/3/2013	128	13,285	730,745	0.018	-4.007										
12/4/2013	797	102,286	730,745	0.140	-1.966										
12/5/2013	819	163,749	730,745	0.224	-1.496										
12/6/2013	1,312	139,099	730,745	0.190	-1.659										
12/7/2013	184	25,621	730,745	0.035	-3.351										
12/8/2013	1,025	74,757	730,745	0.102	-2.280										
12/9/2013	208	34,818	730,745	0.048	-3.044										
12/10/2013	285	33,269	730,745	0.046	-3.089										
12/11/2013	170	22,563	730,745	0.031	-3.478										
12/12/2013	138	10,173	730,745	0.014	-4.274										
12/13/2013	311	62,618	730,745	0.086	-2.457										
12/14/2013	17	3,783	730,745	0.005	-5.264										
12/15/2013	116	20,387	730,745	0.028	-3.579										
12/16/2013	180	23,329	730,745	0.032	-3.444										
12/17/2013	3,198	523,555	730,745	0.716	-0.333										
12/18/2013	37	4,253	730,745	0.006	-5.146										
12/19/2013	3,925	217,301	730,745	0.297	-1.213										
12/20/2013	1,287	79,379	730,745	0.109	-2.220										
12/21/2013	761	69,307	730,745	0.095	-2.356										
12/22/2013	2,661	569,107	730,745	0.779	-0.250										
12/23/2013	303	46,640	730,745	0.064	-2.752										
12/24/2013	422	67,266	730,745	0.092	-2.385										
12/25/2013	99	11,544	730,745	0.016	-4.148										
12/26/2013	36	2,188	730,745	0.003	-5.811										
12/27/2013	54	6,652	730,745	0.009	-4.699										
12/28/2013	179	25,322	730,745	0.035	-3.362										
12/29/2013	131	18,953	730,745	0.026	-3.652										
12/30/2013	1,621	134,652	730,745	0.184	-1.691										
12/31/2013	321	30,876	730,745	0.042	-3.164										
1/1/2014	102	37,392	726,074	0.051	-2.966										
1/2/2014	16,085	873,562	726,074	1.203	0.185										
1/3/2014	189	18,805	726,074	0.026	-3.654										
1/4/2014	229	41,409	726,074	0.057	-2.864										
1/5/2014	1,988	158,497	726,074	0.218	-1.522										
1/6/2014	2,498	301,632	726,074	0.415	-0.878										
1/7/2014	40,683	5,594,242	726,074	7.705	2.042										
1/8/2014	188	27,216	726,074	0.037	-3.284										
1/9/2014	4,595	347,857	726,074	0.479	-0.736										
1/10/2014	390	44,147	726,074	0.061	-2.800										
1/11/2014	3,516	399,649	726,074	0.550	-0.597										
1/12/2014	1,697	42,329	726,074	0.058	-2.842										
1/13/2014	1,275	75,451	726,074	0.104	-2.264										
1/14/2014	138	15,028	726,074	0.021	-3.878										
1/15/2014	2,603	343,308	726,074	0.473	-0.749										
1/16/2014	80	22,487	726,074	0.031	-3.475										
1/17/2014	1,127	146,037	726,074	0.201	-1.604										
1/18/2014	45	5,713	726,074	0.008	-4.845										
1/19/2014	130	11,497	726,074	0.016	-4.146										
1/20/2014	154	5,346	726,074	0.007	-4.911										
1/21/2014	554	36,492	726,074	0.050	-2.991										
1/22/2014	77	14,987	726,074	0.021	-3.880										
1/23/2014	10	2,038	726,074	0.003	-5.876										
1/24/2014	1,465	148,294	726,074	0.204	-1.588										
1/25/2014	1,753	331,397	726,074	0.456	-0.784										

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
1/26/2014	201	28,726	726,074	0.040	-3.230										
1/27/2014	3,527	416,734	726,074	0.574	-0.555										
1/28/2014	2,304	250,778	726,074	0.345	-1.063										
1/29/2014	1,047	146,972	726,074	0.202	-1.597										
1/30/2014	2,520	182,920	726,074	0.252	-1.379										
1/31/2014	171	20,928	726,074	0.029	-3.547										
2/1/2014	1,594	247,982	726,074	0.342	-1.074										
2/2/2014	3,149	281,547	726,074	0.388	-0.947										
2/3/2014	3,894	213,298	726,074	0.294	-1.225										
2/4/2014	1,566	124,887	726,074	0.172	-1.760										
2/5/2014	82	14,574	726,074	0.020	-3.908										
2/6/2014	1,138	128,502	726,074	0.177	-1.732										
2/7/2014	167	26,681	726,074	0.037	-3.304										
2/8/2014	101	8,724	726,074	0.012	-4.422										
2/9/2014	928	7,930	726,074	0.011	-4.517										
2/10/2014	43	5,068	726,074	0.007	-4.965										
2/11/2014	164	27,933	726,074	0.038	-3.258										
2/12/2014	4,275	387,231	726,074	0.533	-0.629										
2/13/2014	195	15,595	726,074	0.021	-3.841										
2/14/2014	105	22,173	726,074	0.031	-3.489										
2/15/2014	170	33,453	726,074	0.046	-3.078										
2/16/2014	11	1,815	726,074	0.002	-5.992										
2/17/2014	1,895	160,759	726,074	0.221	-1.508										
2/18/2014	12,517	931,610	726,074	1.283	0.249										
2/19/2014	321	18,540	726,074	0.026	-3.668										
2/20/2014	3,648	267,777	726,074	0.369	-0.997										
2/21/2014	5,294	648,417	726,074	0.893	-0.113										
2/22/2014	380	47,916	726,074	0.066	-2.718										
2/23/2014	7,259	490,087	726,074	0.675	-0.393										
2/24/2014	420	48,946	726,074	0.067	-2.697										
2/25/2014	157	19,881	726,074	0.027	-3.598										
2/26/2014	163	26,271	726,074	0.036	-3.319										
2/27/2014	65	11,986	726,074	0.017	-4.104										
2/28/2014	329	37,132	726,074	0.051	-2.973										
3/1/2014	48,054	18,770,988	726,074	25.853	3.252										
3/2/2014	837	158,154	726,074	0.218	-1.524										
3/3/2014	782	98,851	726,074	0.136	-1.994										
3/4/2014	296	36,811	726,074	0.051	-2.982										
3/5/2014	78	9,185	726,074	0.013	-4.370										
3/6/2014	438	63,268	726,074	0.087	-2.440										
3/7/2014	133	24,917	726,074	0.034	-3.372										
3/8/2014	52,370	15,547,580	726,074	21.413	3.064										
3/9/2014	285	50,623	726,074	0.070	-2.663										
3/10/2014	429	168,926	726,074	0.233	-1.458										
3/11/2014	4,980	211,669	726,074	0.292	-1.233										
3/12/2014	77,578	12,697,552	726,074	17.488	2.862										
3/13/2014	489	116,543	726,074	0.161	-1.829										
3/14/2014	1,429	232,936	726,074	0.321	-1.137										
3/15/2014	5,156	222,636	726,074	0.307	-1.182										
3/16/2014	625	103,571	726,074	0.143	-1.947										
3/17/2014	188	32,497	726,074	0.045	-3.107										
3/18/2014	2,416	61,061	726,074	0.084	-2.476										
3/19/2014	9,327	611,341	726,074	0.842	-0.172										
3/20/2014	1,887	177,049	726,074	0.244	-1.411										
3/21/2014	129	18,075	726,074	0.025	-3.693										
3/22/2014	76	18,398	726,074	0.025	-3.675										
3/23/2014	75	14,379	726,074	0.020	-3.922										
3/24/2014	781	48,293	726,074	0.067	-2.710										
3/25/2014	4,547	556,965	726,074	0.767	-0.265										
3/26/2014	26	12,105	726,074	0.017	-4.094										
3/27/2014	5,072	533,921	726,074	0.735	-0.307										
3/28/2014	1,248	173,002	726,074	0.238	-1.434										
3/29/2014	5,624	1,306,016	726,074	1.799	0.587										
3/30/2014	794	146,231	726,074	0.201	-1.602										
3/31/2014	961	82,227	726,074	0.113	-2.178										
4/1/2014	2,322	279,983	726,074	0.386	-0.953										
4/2/2014	463	34,585	726,074	0.048	-3.044										
4/3/2014	5,693	583,281	726,074	0.803	-0.219										
4/4/2014	4,059	524,830	726,074	0.723	-0.325										
4/5/2014	1,596	144,122	726,074	0.198	-1.617										
4/6/2014	60	7,038	726,074	0.010	-4.636										
4/7/2014	662	79,726	726,074	0.110	-2.209										
4/8/2014	361	43,469	726,074	0.060	-2.816										
4/9/2014	679	74,465	726,074	0.103	-2.277										
4/10/2014	17,870	1,221,978	726,074	1.683	0.521										
4/11/2014	2,123	91,004	726,074	0.125	-2.077										
4/12/2014	148	27,266	726,074	0.038	-3.282										
4/13/2014	185	39,025	726,074	0.054	-2.923										
4/14/2014	2,752	371,504	726,074	0.512	-0.670										
4/15/2014	1,923	195,969	726,074	0.270	-1.310										
4/16/2014	332	30,709	726,074	0.042	-3.163										
4/17/2014	386	53,304	726,074	0.073	-2.612										
4/18/2014	92	13,856	726,074	0.019	-3.959										
4/19/2014	679	58,326	726,074	0.080	-2.522										
4/20/2014	2,553	217,571	726,074	0.300	-1.205										
4/21/2014	1,100	151,018	726,074	0.208	-1.570										
4/22/2014	246	28,151	726,074	0.039	-3.250										
4/23/2014	6,141	183,751	726,074	0.253	-1.374										
4/24/2014	1,156	20,332	726,074	0.028	-3.575										
4/25/2014	264	17,355	726,074	0.024	-3.734										
4/26/2014	210	27,976	726,074	0.039	-3.256										
4/27/2014	134	19,138	726,074	0.026	-3.636										
4/28/2014	748	29,198	726,074	0.040	-3.214										
4/29/2014	2,077	248,418	726,074	0.342	-1.073										
4/30/2014	2,224	316,733	726,074	0.436	-0.830										
5/1/2014	972	134,680	726,074	0.185	-1.685										
5/2/2014	194	54,112	726,074	0.075	-2.597										
5/3/2014	619	95,581	726,074	0.132	-2.028										
5/4/2014	1,048	75,470	726,074	0.104	-2.264										
5/5/2014	1,151	63,598	726,074	0.088	-2.435										
5/6/2014	6,755	343,507	726,074	0.473	-0.748										
5/7/2014	119	9,198	726,074	0.013	-4.369										
5/8/2014	460	73,431	726,074	0.101	-2.291										
5/9/2014	311	41,771	726,074	0.058	-2.855										
5/10/2014	312	44,349	726,074	0.061	-2.796										
5/11/2014	1,470	99,298	726,074	0.137	-1.990										
5/12/2014	20,937	1,743,350	726,074	2.401	0.876										
5/13/2014	470	77,674	726,074	0.107	-2.235										

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
5/14/2014	3,271	737,815	726,074	1.016	0.016										
5/15/2014	722	136,664	726,074	0.188	-1.670										
5/16/2014	430	61,331	726,074	0.084	-2.471										
5/17/2014	1,554	112,316	726,074	0.155	-1.866										
5/18/2014	910	94,424	726,074	0.130	-2.040										
5/19/2014	697	55,011	726,074	0.076	-2.580										
5/20/2014	252	25,297	726,074	0.035	-3.357										
5/21/2014	15,469	827,312	726,074	1.139	0.131										
5/22/2014	2,819	195,006	726,074	0.269	-1.315										
5/23/2014	841	105,168	726,074	0.145	-1.932										
5/24/2014	406	31,663	726,074	0.044	-3.133										
5/25/2014	916	194,483	726,074	0.268	-1.317										
5/26/2014	8,577	307,226	726,074	0.423	-0.860										
5/27/2014	346	102,853	726,074	0.142	-1.954										
5/28/2014	449	47,975	726,074	0.066	-2.717										
5/29/2014	3,603	120,251	726,074	0.166	-1.798										
5/30/2014	701	99,310	726,074	0.137	-1.989										
5/31/2014	673	47,978	726,074	0.066	-2.717										
6/1/2014	3,620	141,073	726,074	0.194	-1.638										
6/2/2014	1,731	162,078	726,074	0.223	-1.500										
6/3/2014	4,521	589,407	726,074	0.812	-0.209										
6/4/2014	258	50,778	726,074	0.070	-2.660										
6/5/2014	371	58,380	726,074	0.080	-2.521										
6/6/2014	358	68,658	726,074	0.095	-2.359										
6/7/2014	586	50,857	726,074	0.070	-2.659										
6/8/2014	723	100,526	726,074	0.138	-1.977										
6/9/2014	1,744	153,884	726,074	0.212	-1.551										
6/10/2014	216	39,894	726,074	0.055	-2.901										
6/11/2014	352	42,861	726,074	0.059	-2.830										
6/12/2014	2,296	207,150	726,074	0.285	-1.254										
6/13/2014	264	69,599	726,074	0.096	-2.345										
6/14/2014	365	45,035	726,074	0.062	-2.780										
6/15/2014	7,183	635,332	726,074	0.875	-0.134										
6/16/2014	4,029	199,170	726,074	0.274	-1.293										
6/17/2014	3,454	488,524	726,074	0.673	-0.396										
6/18/2014	44,493	16,185,172	726,074	22.291	3.104										
6/19/2014	1,818	530,326	726,074	0.730	-0.314										
6/20/2014	170	27,509	726,074	0.038	-3.273										
6/21/2014	2,462	199,528	726,074	0.275	-1.292										
6/22/2014	1,225	72,226	726,074	0.099	-2.308										
6/23/2014	781	119,648	726,074	0.165	-1.803										
6/24/2014	4,551	997,703	726,074	1.374	0.318										
6/25/2014	11,995	1,279,925	726,074	1.763	0.567										
6/26/2014	26,008	2,272,634	726,074	3.130	1.141										
6/27/2014	1,552	201,438	726,074	0.277	-1.282										
6/28/2014	2,774	397,319	726,074	0.547	-0.603										
6/29/2014	3,227	685,548	726,074	0.944	-0.057										
6/30/2014	43,574	3,617,086	726,074	4.982	1.606										
7/1/2014	1,964	312,526	726,074	0.430	-0.843										
7/2/2014	2,675	288,506	726,074	0.397	-0.923										
7/3/2014	633	119,624	726,074	0.165	-1.803										
7/4/2014	1,535	160,249	726,074	0.221	-1.511										
7/5/2014	671	106,896	726,074	0.147	-1.916										
7/6/2014	344	64,199	726,074	0.088	-2.426										
7/7/2014	2,887	927,892	726,074	1.278	0.245										
7/8/2014	4,939	1,001,976	726,074	1.380	0.322										
7/9/2014	3,201	379,273	726,074	0.522	-0.649										
7/10/2014	1,130	149,215	726,074	0.206	-1.582										
7/11/2014	728	92,863	726,074	0.128	-2.057										
7/12/2014	357	100,594	726,074	0.139	-1.977										
7/13/2014	5,801	354,359	726,074	0.488	-0.717										
7/14/2014	8,831	607,831	726,074	0.837	-0.178										
7/15/2014	2,521	363,632	726,074	0.501	-0.692										
7/16/2014	942	258,471	726,074	0.356	-1.033										
7/17/2014	328	105,800	726,074	0.146	-1.926										
7/18/2014	1,840	347,800	726,074	0.479	-0.736										
7/19/2014	469	64,767	726,074	0.089	-2.417										
7/20/2014	1,176	129,821	726,074	0.179	-1.721										
7/21/2014	1,272	209,351	726,074	0.288	-1.244										
7/22/2014	510	75,126	726,074	0.103	-2.268										
7/23/2014	539	72,659	726,074	0.100	-2.302										
7/24/2014	894	107,291	726,074	0.148	-1.912										
7/25/2014	443	28,637	726,074	0.039	-3.233										
7/26/2014	603	133,440	726,074	0.184	-1.694										
7/27/2014	14,691	4,848,031	726,074	6.677	1.899										
7/28/2014	2,914	409,375	726,074	0.564	-0.573										
7/29/2014	456	88,984	726,074	0.123	-2.099										
7/30/2014	940	117,327	726,074	0.162	-1.823										
7/31/2014	266	49,886	726,074	0.069	-2.678										
8/1/2014	639	141,126	726,074	0.194	-1.638										
8/2/2014	3,013	334,565	726,074	0.461	-0.775										
8/3/2014	851	166,638	726,074	0.230	-1.472										
8/4/2014	580	107,384	726,074	0.148	-1.911										
8/5/2014	920	159,295	726,074	0.219	-1.517										
8/6/2014	1,726	223,264	726,074	0.307	-1.179										
8/7/2014	179	32,862	726,074	0.045	-3.095										
8/8/2014	380	36,717	726,074	0.051	-2.984										
8/9/2014	2,967	292,171	726,074	0.402	-0.910										
8/10/2014	181	49,071	726,074	0.068	-2.694										
8/11/2014	14,076	1,302,549	726,074	1.794	0.584										
8/12/2014	1,285	266,407	726,074	0.367	-1.003										
8/13/2014	1,509	49,991	726,074	0.069	-2.676										
8/14/2014	141	23,418	726,074	0.032	-3.434										
8/15/2014	272	61,430	726,074	0.085	-2.470										
8/16/2014	365	57,183	726,074	0.079	-2.541										
8/17/2014	1,561	283,193	726,074	0.390	-0.942										
8/18/2014	199	52,514	726,074	0.072	-2.627										
8/19/2014	32,158	3,412,166	726,074	4.699	1.547										
8/20/2014	3,096	669,292	726,074	0.922	-0.081										
8/21/2014	1,942	483,233	726,074	0.666	-0.407										
8/22/2014	1,339	98,387	726,074	0.136	-1.999										
8/23/2014	82	16,682	726,074	0.023	-3.773										
8/24/2014	521	105,601	726,074	0.145	-1.928										
8/25/2014	1,032	89,887	726,074	0.124	-2.089										
8/26/2014	1,689	215,017	726,074	0.296	-1.217										
8/27/2014	3,019	312,954	726,074	0.431	-0.842										
8/28/2014	1,465	60,348	726,074	0.083	-2.488										
8/29/2014	538	110,248	726,074	0.152	-1.885										

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
8/30/2014	407	91,886	726,074	0.127	-2.067										
8/31/2014	1,362	197,978	726,074	0.273	-1.299										
9/1/2014	3,871	305,357	726,074	0.421	-0.866										
9/2/2014	1,036	165,254	726,074	0.228	-1.480										
9/3/2014	342	63,080	726,074	0.087	-2.443										
9/4/2014	14,194	748,617	726,074	1.031	0.031										
9/5/2014	4,076	755,849	726,074	1.041	0.040										
9/6/2014	3,464	729,966	726,074	1.005	0.005										
9/7/2014	416	74,797	726,074	0.103	-2.273										
9/8/2014	1,001	67,994	726,074	0.094	-2.368										
9/9/2014	233	45,534	726,074	0.063	-2.769										
9/10/2014	1,471	347,447	726,074	0.479	-0.737										
9/11/2014	2,611	339,873	726,074	0.468	-0.759										
9/12/2014	224	49,382	726,074	0.068	-2.688										
9/13/2014	701	99,136	726,074	0.137	-1.991										
9/14/2014	108	8,181	726,074	0.011	-4.486										
9/15/2014	1,833	179,277	726,074	0.247	-1.399										
9/16/2014	1,818	221,203	726,074	0.305	-1.189										
9/17/2014	424	75,538	726,074	0.104	-2.263										
9/18/2014	4,802	423,062	726,074	0.583	-0.540										
9/19/2014	167	13,592	726,074	0.019	-3.978										
9/20/2014	1,206	122,484	726,074	0.169	-1.780										
9/21/2014	1,041	171,261	726,074	0.236	-1.444										
9/22/2014	1,998	376,143	726,074	0.518	-0.658										
9/23/2014	1,205	189,466	726,074	0.261	-1.343										
9/24/2014	664	67,218	726,074	0.093	-2.380										
9/25/2014	204	34,380	726,074	0.047	-3.050										
9/26/2014	316	50,678	726,074	0.070	-2.662										
9/27/2014	8,070	542,679	726,074	0.747	-0.291										
9/28/2014	2,621	137,803	726,074	0.190	-1.662										
9/29/2014	144	18,780	726,074	0.026	-3.655										
9/30/2014	3,593	334,852	726,074	0.461	-0.774										
10/1/2014	755	134,864	726,074	0.186	-1.683										
10/2/2014	645	105,572	726,074	0.145	-1.928										
10/3/2014	1,614	276,444	726,074	0.381	-0.966										
10/4/2014	1,418	238,023	726,074	0.328	-1.115										
10/5/2014	3,244	232,274	726,074	0.320	-1.140										
10/6/2014	5,917	655,433	726,074	0.903	-0.102										
10/7/2014	420	102,534	726,074	0.141	-1.957										
10/8/2014	3,507	193,178	726,074	0.266	-1.324										
10/9/2014	1,099	78,109	726,074	0.108	-2.230										
10/10/2014	610	40,722	726,074	0.056	-2.881										
10/11/2014	134	23,366	726,074	0.032	-3.436										
10/12/2014	187	25,128	726,074	0.035	-3.364										
10/13/2014	506	95,282	726,074	0.131	-2.031										
10/14/2014	2,628	322,278	726,074	0.444	-0.812										
10/15/2014	2,717	203,272	726,074	0.280	-1.273										
10/16/2014	1,440	244,200	726,074	0.336	-1.090										
10/17/2014	417	111,289	726,074	0.153	-1.876										
10/18/2014	731	207,772	726,074	0.286	-1.251										
10/19/2014	319	37,587	726,074	0.052	-2.961										
10/20/2014	420	77,132	726,074	0.106	-2.242										
10/21/2014	1,292	139,606	726,074	0.192	-1.649										
10/22/2014	108	25,792	726,074	0.036	-3.338										
10/23/2014	186	18,659	726,074	0.026	-3.661										
10/24/2014	87	11,868	726,074	0.016	-4.114										
10/25/2014	6,420	383,022	726,074	0.528	-0.640										
10/26/2014	49	5,415	726,074	0.007	-4.898										
10/27/2014	7,097	422,541	726,074	0.582	-0.541										
10/28/2014	3,282	172,438	726,074	0.237	-1.438										
10/29/2014	243	20,522	726,074	0.028	-3.566										
10/30/2014	1,108	157,973	726,074	0.218	-1.525										
10/31/2014	243	44,117	726,074	0.061	-2.801										
11/1/2014	2,271	251,620	726,074	0.347	-1.060										
11/2/2014	102	16,275	726,074	0.022	-3.798										
11/3/2014	301	36,117	726,074	0.050	-3.001										
11/4/2014	1,644	212,688	726,074	0.293	-1.228										
11/5/2014	8,102	512,310	726,074	0.706	-0.349										
11/6/2014	779	95,882	726,074	0.132	-2.025										
11/7/2014	560	70,310	726,074	0.097	-2.335										
11/8/2014	3,404	474,493	726,074	0.654	-0.425										
11/9/2014	59	7,260	726,074	0.010	-4.605										
11/10/2014	295	50,055	726,074	0.069	-2.675										
11/11/2014	927	185,476	726,074	0.255	-1.365										
11/12/2014	3,640	435,789	726,074	0.600	-0.510										
11/13/2014	549	80,978	726,074	0.112	-2.193										
11/14/2014	455	60,267	726,074	0.083	-2.489										
11/15/2014	17	1,262	726,074	0.002	-6.355										
11/16/2014	5,828	342,982	726,074	0.472	-0.750										
11/17/2014	1,788	188,949	726,074	0.260	-1.346										
11/18/2014	1,092	123,592	726,074	0.170	-1.771										
11/19/2014	6,138	721,328	726,074	0.993	-0.007										
11/20/2014	180	32,772	726,074	0.045	-3.098										
11/21/2014	1,646	357,826	726,074	0.493	-0.708										
11/22/2014	328	65,727	726,074	0.091	-2.402										
11/23/2014	8,912	578,990	726,074	0.797	-0.226										
11/24/2014	32,857	11,426,871	726,074	15.738	2.756										
11/25/2014	1,599	410,318	726,074	0.565	-0.571										
11/26/2014	986	108,816	726,074	0.150	-1.898										
11/27/2014	93	16,922	726,074	0.023	-3.759										
11/28/2014	142	9,871	726,074	0.014	-4.298										
11/29/2014	495	32,227	726,074	0.044	-3.115										
11/30/2014	789	70,606	726,074	0.097	-2.331										
12/1/2014	3,631	440,067	726,074	0.606	-0.501										
12/2/2014	355	58,323	726,074	0.080	-2.522										
12/3/2014	1,095	92,333	726,074	0.127	-2.062										
12/4/2014	292	45,663	726,074	0.063	-2.766										
12/5/2014	102	14,265	726,074	0.020	-3.930										
12/6/2014	2,699	288,670	726,074	0.398	-0.922										
12/7/2014	305	30,352	726,074	0.042	-3.175										
12/8/2014	236	30,600	726,074	0.042	-3.167										
12/9/2014	3,319	300,493	726,074	0.414	-0.882										
12/10/2014	2,066	200,547	726,074	0.276	-1.287										
12/11/2014	164	28,803	726,074	0.040	-3.227										
12/12/2014	214	43,205	726,074	0.060	-2.822										
12/13/2014	1,223	106,127	726,074	0.146	-1.923										
12/14/2014	490	57,317	726,074	0.079	-2.539										
12/15/2014	441	27,322	726,074	0.038	-3.280										

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
12/16/2014	1,680	136,745	726,074	0.188	-1.670										
12/17/2014	408	95,050	726,074	0.131	-2.033										
12/18/2014	321	39,571	726,074	0.054	-2.910										
12/19/2014	173	7,713	726,074	0.011	-4.545										
12/20/2014	55	9,748	726,074	0.013	-4.311										
12/21/2014	461	95,886	726,074	0.132	-2.024										
12/22/2014	5,533	267,877	726,074	0.369	-0.997										
12/23/2014	987	66,973	726,074	0.092	-2.383										
12/24/2014	4,050	1,171,160	726,074	1.613	0.478										
12/25/2014	220	54,995	726,074	0.076	-2.580										
12/26/2014	112	19,499	726,074	0.027	-3.617										
12/27/2014	5,899	473,672	726,074	0.652	-0.427										
12/28/2014	210	40,518	726,074	0.056	-2.886										
12/29/2014	2,682	230,734	726,074	0.318	-1.146										
12/30/2014	189	25,468	726,074	0.035	-3.350										
12/31/2014	3,897	325,326	726,074	0.448	-0.803										
1/1/2015	319	98,618	725,879	0.136	-1.996										
1/2/2015	141	27,537	725,879	0.038	-3.272										
1/3/2015	754	94,229	725,879	0.130	-2.042										
1/4/2015	3,735	803,791	725,879	1.107	0.102										
1/5/2015	1,699	129,116	725,879	0.178	-1.727										
1/6/2015	44	4,632	725,879	0.006	-5.054										
1/7/2015	1,342	225,919	725,879	0.311	-1.167										
1/8/2015	388	100,569	725,879	0.139	-1.977										
1/9/2015	647	148,597	725,879	0.205	-1.586										
1/10/2015	27	3,457	725,879	0.005	-5.347										
1/11/2015	498	108,993	725,879	0.150	-1.896										
1/12/2015	136	28,495	725,879	0.039	-3.238										
1/13/2015	427	51,176	725,879	0.071	-2.652										
1/14/2015	6,959	394,216	725,879	0.543	-0.610										
1/15/2015	2	189	725,879	0.000	-8.253										
1/16/2015	70	9,201	725,879	0.013	-4.368										
1/17/2015	256	59,977	725,879	0.083	-2.493										
1/18/2015	301	29,742	725,879	0.041	-3.195										
1/19/2015	178	27,280	725,879	0.038	-3.281										
1/20/2015	1,192	108,956	725,879	0.150	-1.896										
1/21/2015	2,302	411,720	725,879	0.567	-0.567										
1/22/2015	255	56,803	725,879	0.078	-2.548										
1/23/2015	118	15,755	725,879	0.022	-3.830										
1/24/2015	158	15,285	725,879	0.021	-3.861										
1/25/2015	572	42,669	725,879	0.059	-2.834										
1/26/2015	71	6,347	725,879	0.009	-4.739										
1/27/2015	6,109	139,961	725,879	0.193	-1.646										
1/28/2015	286	28,122	725,879	0.039	-3.251										
1/29/2015	6,578	277,771	725,879	0.383	-0.961										
1/30/2015	382	25,603	725,879	0.035	-3.345										
1/31/2015	129	34,587	725,879	0.048	-3.044										
2/1/2015	636	101,553	725,879	0.140	-1.967										
2/2/2015	175	39,906	725,879	0.055	-2.901										
2/3/2015	85	6,533	725,879	0.009	-4.711										
2/4/2015	171	42,146	725,879	0.058	-2.846										
2/5/2015	63	12,368	725,879	0.017	-4.072										
2/6/2015	1,666	135,682	725,879	0.187	-1.677										
2/7/2015	1,409	153,282	725,879	0.211	-1.555										
2/8/2015	659	225,399	725,879	0.311	-1.170										
2/9/2015	213	32,183	725,879	0.044	-3.116										
2/10/2015	230	25,813	725,879	0.036	-3.337										
2/11/2015	849	310,880	725,879	0.428	-0.848										
2/12/2015	166	37,379	725,879	0.051	-2.966										
2/13/2015	153	23,907	725,879	0.033	-3.413										
2/14/2015	667	85,127	725,879	0.117	-2.143										
2/15/2015	667	104,017	725,879	0.143	-1.943										
2/16/2015	3,275	401,972	725,879	0.554	-0.591										
2/17/2015	947	43,042	725,879	0.059	-2.825										
2/18/2015	2,317	157,155	725,879	0.217	-1.530										
2/19/2015	230	39,218	725,879	0.054	-2.918										
2/20/2015	2,266	305,598	725,879	0.421	-0.865										
2/21/2015	2,027	188,232	725,879	0.259	-1.350										
2/22/2015	61	6,637	725,879	0.009	-4.695										
2/23/2015	61	9,316	725,879	0.013	-4.356										
2/24/2015	619	133,438	725,879	0.184	-1.694										
2/25/2015	408	33,503	725,879	0.046	-3.076										
2/26/2015	165	20,283	725,879	0.028	-3.578										
2/27/2015	43	6,174	725,879	0.009	-4.767										
2/28/2015	98	11,525	725,879	0.016	-4.143										
3/1/2015	4,010	585,066	725,879	0.806	-0.216										
3/2/2015	314	25,093	725,879	0.035	-3.365										
3/3/2015	9,120	1,052,655	725,879	1.450	0.372										
3/4/2015	775	166,973	725,879	0.230	-1.470										
3/5/2015	1,473	131,625	725,879	0.181	-1.707										
3/6/2015	1,554	213,721	725,879	0.294	-1.223										
3/7/2015	1,520	163,163	725,879	0.225	-1.493										
3/8/2015	2,115	489,183	725,879	0.674	-0.395										
3/9/2015	248	43,737	725,879	0.060	-2.809										
3/10/2015	959	84,862	725,879	0.117	-2.146										
3/11/2015	1,953	256,656	725,879	0.354	-1.040										
3/12/2015	154	25,942	725,879	0.036	-3.332										
3/13/2015	19,197	3,160,905	725,879	4.355	1.471										
3/14/2015	11,541	2,973,937	725,879	4.097	1.410										
3/15/2015	77	39,943	725,879	0.055	-2.900										
3/16/2015	891	143,132	725,879	0.197	-1.624										
3/17/2015	412	88,761	725,879	0.122	-2.101										
3/18/2015	60	5,560	725,879	0.008	-4.872										
3/19/2015	79	9,287	725,879	0.013	-4.359										
3/20/2015	418	29,285	725,879	0.040	-3.210										
3/21/2015	165	16,686	725,879	0.023	-3.773										
3/22/2015	88	11,718	725,879	0.016	-4.126										
3/23/2015	706	52,668	725,879	0.073	-2.623										
3/24/2015	2,141	200,627	725,879	0.276	-1.286										
3/25/2015	1,939	228,508	725,879	0.315	-1.156										
3/26/2015	4,246	406,910	725,879	0.561	-0.579										
3/27/2015	1,488	117,121	725,879	0.161	-1.824										
3/28/2015	286	51,432	725,879	0.071	-2.647										
3/29/2015	799	136,610	725,879	0.188	-1.670										
3/30/2015	715	74,554	725,879	0.103	-2.276										
3/31/2015	1,258	151,219	725,879	0.208	-1.569										
4/1/2015	82	11,669	725,879	0.016	-4.130										
4/2/2015	955	57,637	725,879	0.079	-2.533										

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4/3/2015	1,872	126,315	725,879	0.174	-1.749										
4/4/2015	368	45,759	725,879	0.063	-2.764										
4/5/2015	251	28,110	725,879	0.039	-3.251										
4/6/2015	353	67,414	725,879	0.093	-2.377										
4/7/2015	1,474	118,705	725,879	0.164	-1.811										
4/8/2015	551	55,096	725,879	0.076	-2.578										
4/9/2015	1,778	321,060	725,879	0.442	-0.816										
4/10/2015	5,275	482,083	725,879	0.664	-0.409										
4/11/2015	44	4,770	725,879	0.007	-5.025										
4/12/2015	204	24,420	725,879	0.034	-3.392										
4/13/2015	1,756	156,698	725,879	0.216	-1.533										
4/14/2015	395	32,496	725,879	0.045	-3.106										
4/15/2015	216	27,087	725,879	0.037	-3.288										
4/16/2015	1,667	162,717	725,879	0.224	-1.495										
4/17/2015	160	25,571	725,879	0.035	-3.346										
4/18/2015	3,605	140,593	725,879	0.194	-1.642										
4/19/2015	4,596	1,385,465	725,879	1.909	0.646										
4/20/2015	4,391	430,352	725,879	0.593	-0.523										
4/21/2015	2,885	573,722	725,879	0.790	-0.235										
4/22/2015	1,171	166,189	725,879	0.229	-1.474										
4/23/2015	780	61,481	725,879	0.085	-2.469										
4/24/2015	21,496	1,476,552	725,879	2.034	0.710										
4/25/2015	1,988	260,404	725,879	0.359	-1.025										
4/26/2015	171	20,094	725,879	0.028	-3.587										
4/27/2015	1,898	235,272	725,879	0.324	-1.127										
4/28/2015	2,383	71,629	725,879	0.099	-2.316										
4/29/2015	389	28,994	725,879	0.040	-3.220										
4/30/2015	94	8,906	725,879	0.012	-4.401										
5/1/2015	2,133	189,155	725,879	0.261	-1.345										
5/2/2015	345	70,146	725,879	0.097	-2.337										
5/3/2015	385	15,877	725,879	0.022	-3.823										
5/4/2015	549	67,422	725,879	0.093	-2.376										
5/5/2015	975	144,968	725,879	0.200	-1.611										
5/6/2015	2,499	168,565	725,879	0.232	-1.460										
5/7/2015	981	121,837	725,879	0.168	-1.785										
5/8/2015	234	43,701	725,879	0.060	-2.810										
5/9/2015	1,213	192,092	725,879	0.265	-1.329										
5/10/2015	1,542	311,847	725,879	0.430	-0.845										
5/11/2015	10,775	1,285,633	725,879	1.771	0.572										
5/12/2015	10,139	747,990	725,879	1.030	0.030										
5/13/2015	2,757	170,418	725,879	0.235	-1.449										
5/14/2015	25,175	980,887	725,879	1.351	0.301										
5/15/2015	964	97,744	725,879	0.135	-2.005										
5/16/2015	631	71,832	725,879	0.099	-2.313										
5/17/2015	230	64,684	725,879	0.089	-2.418										
5/18/2015	2,856	165,784	725,879	0.228	-1.477										
5/19/2015	739	134,635	725,879	0.185	-1.685										
5/20/2015	271	18,236	725,879	0.025	-3.684										
5/21/2015	23,500	1,669,312	725,879	2.300	0.833										
5/22/2015	4,657	282,788	725,879	0.390	-0.943										
5/23/2015	448	72,895	725,879	0.100	-2.298										
5/24/2015	842	125,155	725,879	0.172	-1.758										
5/25/2015	945	111,986	725,879	0.154	-1.869										
5/26/2015	2,476	388,140	725,879	0.535	-0.626										
5/27/2015	1,906	268,260	725,879	0.370	-0.995										
5/28/2015	861	193,870	725,879	0.267	-1.320										
5/29/2015	2,122	222,431	725,879	0.306	-1.183										
5/30/2015	24,421	4,225,198	725,879	5.821	1.761										
5/31/2015	7,642	1,615,835	725,879	2.226	0.800										
6/1/2015	1,571	242,335	725,879	0.334	-1.097										
6/2/2015	468	96,243	725,879	0.133	-2.021										
6/3/2015	438	81,216	725,879	0.112	-2.190										
6/4/2015	326	96,683	725,879	0.133	-2.016										
6/5/2015	1,199	140,263	725,879	0.193	-1.644										
6/6/2015	160	32,529	725,879	0.045	-3.105										
6/7/2015	610	230,266	725,879	0.317	-1.148										
6/8/2015	216	37,579	725,879	0.052	-2.961										
6/9/2015	1,349	129,989	725,879	0.179	-1.720										
6/10/2015	1,326	186,309	725,879	0.257	-1.360										
6/11/2015	347	122,711	725,879	0.169	-1.778										
6/12/2015	3,434	437,293	725,879	0.602	-0.507										
6/13/2015	15,956	1,574,167	725,879	2.169	0.774										
6/14/2015	6,381	2,022,597	725,879	2.786	1.025										
6/15/2015	2,781	501,341	725,879	0.691	-0.370										
6/16/2015	12,572	1,127,745	725,879	1.554	0.441										
6/17/2015	1,336	156,524	725,879	0.216	-1.534										
6/18/2015	425	112,101	725,879	0.154	-1.868										
6/19/2015	307	50,634	725,879	0.070	-2.663										
6/20/2015	212	45,696	725,879	0.063	-2.765										
6/21/2015	10,303	471,969	725,879	0.650	-0.430										
6/22/2015	5,273	923,170	725,879	1.272	0.240										
6/23/2015	20,357	5,152,447	725,879	7.098	1.960										
6/24/2015	393	65,322	725,879	0.090	-2.408										
6/25/2015	7,954	447,253	725,879	0.616	-0.484										
6/26/2015	266	36,438	725,879	0.050	-2.992										
6/27/2015	5,572	867,644	725,879	1.195	0.178										
6/28/2015	4,996	421,504	725,879	0.581	-0.544										
6/29/2015	47,403	1,498,620	725,879	2.065	0.725										
6/30/2015	1,187	177,520	725,879	0.245	-1.408										
7/1/2015	4,695	746,612	725,879	1.029	0.028										
7/2/2015	585	35,774	725,879	0.049	-3.010										
7/3/2015	271	50,307	725,879	0.069	-2.669										
7/4/2015	91	20,048	725,879	0.028	-3.589										
7/5/2015	2,671	308,279	725,879	0.425	-0.856										
7/6/2015	277	101,539	725,879	0.140	-1.967										
7/7/2015	2,936	416,843	725,879	0.574	-0.555										
7/8/2015	2,207	173,622	725,879	0.239	-1.431										
7/9/2015	3,156	318,055	725,879	0.438	-0.825										
7/10/2015	1,901	282,181	725,879	0.389	-0.945										
7/11/2015	44	7,557	725,879	0.010	-4.565										
7/12/2015	74	5,771	725,879	0.008	-4.835										
7/13/2015	1,170	216,123	725,879	0.298	-1.212										
7/14/2015	10,723	1,302,536	725,879	1.794	0.585										
7/15/2015	475	111,746	725,879	0.154	-1.871										
7/16/2015	188	20,537	725,879	0.028	-3.565										
7/17/2015	379	44,623	725,879	0.061	-2.789										
7/18/2015	1,517	268,155	725,879	0.369	-0.996										
7/19/2015	3,562	517,059	725,879	0.712	-0.339										

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
7/20/2015	2,949	264,492	725,879	0.364	-1.010										
7/21/2015	2,487	265,497	725,879	0.366	-1.006										
7/22/2015	587	120,038	725,879	0.165	-1.800										
7/23/2015	942	153,937	725,879	0.212	-1.551										
7/24/2015	2,380	253,778	725,879	0.350	-1.051										
7/25/2015	365	63,205	725,879	0.087	-2.441										
7/26/2015	53	15,186	725,879	0.021	-3.867										
7/27/2015	1,570	224,190	725,879	0.309	-1.175										
7/28/2015	2,403	219,689	725,879	0.303	-1.195										
7/29/2015	4,706	527,009	725,879	0.726	-0.320										
7/30/2015	2,918	362,748	725,879	0.500	-0.694										
7/31/2015	842	126,627	725,879	0.174	-1.746										
8/1/2015	943	99,668	725,879	0.137	-1.986										
8/2/2015	1,747	320,290	725,879	0.441	-0.818										
8/3/2015	8,723	1,627,596	725,879	2.242	0.807										
8/4/2015	1,154	103,700	725,879	0.143	-1.946										
8/5/2015	662	150,987	725,879	0.208	-1.570										
8/6/2015	538	145,472	725,879	0.200	-1.607										
8/7/2015	1,236	110,878	725,879	0.153	-1.879										
8/8/2015	130	26,316	725,879	0.036	-3.317										
8/9/2015	241	45,577	725,879	0.063	-2.768										
8/10/2015	1,620	312,484	725,879	0.430	-0.843										
8/11/2015	903	248,880	725,879	0.343	-1.070										
8/12/2015	7,181	509,170	725,879	0.701	-0.355										
8/13/2015	791	168,306	725,879	0.232	-1.462										
8/14/2015	1,116	316,354	725,879	0.436	-0.831										
8/15/2015	3,599	268,767	725,879	0.370	-0.994										
8/16/2015	1,684	174,001	725,879	0.240	-1.428										
8/17/2015	3,305	381,875	725,879	0.526	-0.642										
8/18/2015	2,641	382,673	725,879	0.527	-0.640										
8/19/2015	1,268	561,635	725,879	0.774	-0.257										
8/20/2015	3,961	416,612	725,879	0.574	-0.555										
8/21/2015	392	52,483	725,879	0.072	-2.627										
8/22/2015	931	81,641	725,879	0.112	-2.185										
8/23/2015	1,790	89,354	725,879	0.123	-2.095										
8/24/2015	1,544	209,247	725,879	0.288	-1.244										
8/25/2015	185	31,868	725,879	0.044	-3.126										
8/26/2015	2,409	315,829	725,879	0.435	-0.832										
8/27/2015	99	28,926	725,879	0.040	-3.223										
8/28/2015	195	16,035	725,879	0.022	-3.813										
8/29/2015	1,228	144,708	725,879	0.199	-1.613										
8/30/2015	6,434	617,537	725,879	0.851	-0.162										
8/31/2015	118	24,922	725,879	0.034	-3.372										
9/1/2015	1,928	318,063	725,879	0.438	-0.825										
9/2/2015	511	86,163	725,879	0.119	-2.131										
9/3/2015	1,577	219,918	725,879	0.303	-1.194										
9/4/2015	3,643	354,144	725,879	0.488	-0.718										
9/5/2015	197	53,412	725,879	0.074	-2.609										
9/6/2015	14,422	1,164,648	725,879	1.604	0.473										
9/7/2015	2,995	578,144	725,879	0.796	-0.228										
9/8/2015	1,053	221,430	725,879	0.305	-1.187										
9/9/2015	726	137,675	725,879	0.190	-1.662										
9/10/2015	392	114,939	725,879	0.158	-1.843										
9/11/2015	3,745	683,926	725,879	0.942	-0.060										
9/12/2015	12,003	1,699,221	725,879	2.341	0.851										
9/13/2015	839	68,728	725,879	0.095	-2.357										
9/14/2015	649	107,459	725,879	0.148	-1.910										
9/15/2015	503	214,143	725,879	0.295	-1.221										
9/16/2015	795	34,808	725,879	0.048	-3.038										
9/17/2015	1,179	208,700	725,879	0.288	-1.246										
9/18/2015	1,462	107,985	725,879	0.149	-1.905										
9/19/2015	2,187	307,203	725,879	0.423	-0.860										
9/20/2015	390	38,831	725,879	0.053	-2.928										
9/21/2015	2,796	379,012	725,879	0.522	-0.650										
9/22/2015	135	24,766	725,879	0.034	-3.378										
9/23/2015	217	36,751	725,879	0.051	-2.983										
9/24/2015	8,914	771,353	725,879	1.063	0.061										
9/25/2015	64	15,412	725,879	0.021	-3.852										
9/26/2015	480	101,237	725,879	0.139	-1.970										
9/27/2015	343	72,414	725,879	0.100	-2.305										
9/28/2015	294	15,630	725,879	0.022	-3.838										
9/29/2015	4,213	684,419	725,879	0.943	-0.059										
9/30/2015	4,309	407,915	725,879	0.562	-0.576										
10/1/2015	5,268	961,420	725,879	1.324	0.281										
10/2/2015	19,861	2,663,597	725,879	3.669	1.300										
10/3/2015	4,403	631,050	725,879	0.869	-0.140										
10/4/2015	721	140,783	725,879	0.194	-1.640										
10/5/2015	165	36,303	725,879	0.050	-2.995										
10/6/2015	1,334	151,988	725,879	0.209	-1.564										
10/7/2015	539	37,537	725,879	0.052	-2.962										
10/8/2015	699	87,802	725,879	0.121	-2.112										
10/9/2015	13,219	712,031	725,879	0.981	-0.019										
10/10/2015	4,506	612,312	725,879	0.844	-0.170										
10/11/2015	918	147,461	725,879	0.203	-1.594										
10/12/2015	1,352	171,906	725,879	0.237	-1.440										
10/13/2015	9,781	235,673	725,879	0.325	-1.125										
10/14/2015	3,308	235,839	725,879	0.325	-1.124										
10/15/2015	1,539	263,668	725,879	0.363	-1.013										
10/16/2015	6,000	517,771	725,879	0.713	-0.338										
10/17/2015	728	66,999	725,879	0.092	-2.383										
10/18/2015	140	25,963	725,879	0.036	-3.331										
10/19/2015	1,390	145,871	725,879	0.201	-1.605										
10/20/2015	802	198,966	725,879	0.274	-1.294										
10/21/2015	138	17,828	725,879	0.025	-3.707										
10/22/2015	1,060	376,442	725,879	0.519	-0.657										
10/23/2015	1,180	135,930	725,879	0.187	-1.675										
10/24/2015	1,889	265,382	725,879	0.366	-1.006										
10/25/2015	118	25,559	725,879	0.035	-3.346										
10/26/2015	701	181,830	725,879	0.250	-1.384										
10/27/2015	118	41,466	725,879	0.057	-2.863										
10/28/2015	10,112	1,263,726	725,879	1.741	0.554										
10/29/2015	5,116	814,344	725,879	1.122	0.115										
10/30/2015	1,586	112,138	725,879	0.154	-1.868										
10/31/2015	145	20,349	725,879	0.028	-3.574										
11/1/2015	1,218	183,668	725,879	0.253	-1.374										
11/2/2015	369	46,542	725,879	0.064	-2.747										
11/3/2015	216	32,570	725,879	0.045	-3.104										
11/4/2015	511	172,075	725,879	0.237	-1.439										

Major Event Day Thresholds ("TMED") Calculations - CEI

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
11/5/2015	2,381	308,200	725,879	0.425	-0.857										
11/6/2015	568	57,069	725,879	0.079	-2.543										
11/7/2015	949	80,023	725,879	0.110	-2.205										
11/8/2015	152	22,947	725,879	0.032	-3.454										
11/9/2015	180	28,809	725,879	0.040	-3.227										
11/10/2015	4,886	692,437	725,879	0.954	-0.047										
11/11/2015	2,973	226,848	725,879	0.313	-1.163										
11/12/2015	7,289	1,177,967	725,879	1.623	0.484										
11/13/2015	4,518	729,763	725,879	1.005	0.005										
11/14/2015	304	75,883	725,879	0.105	-2.258										
11/15/2015	679	48,204	725,879	0.066	-2.712										
11/16/2015	1,775	168,112	725,879	0.232	-1.463										
11/17/2015	2,876	178,328	725,879	0.246	-1.404										
11/18/2015	5,439	931,404	725,879	1.283	0.249										
11/19/2015	562	86,728	725,879	0.119	-2.125										
11/20/2015	6,739	253,400	725,879	0.349	-1.052										
11/21/2015	1,430	207,806	725,879	0.286	-1.251										
11/22/2015	1,472	100,507	725,879	0.138	-1.977										
11/23/2015	1,104	87,778	725,879	0.121	-2.113										
11/24/2015	241	38,890	725,879	0.054	-2.927										
11/25/2015	955	271,848	725,879	0.375	-0.982										
11/26/2015	280	25,328	725,879	0.035	-3.355										
11/27/2015	1,891	170,217	725,879	0.234	-1.450										
11/28/2015	2,664	579,153	725,879	0.798	-0.226										
11/29/2015	644	144,658	725,879	0.199	-1.613										
11/30/2015	194	28,734	725,879	0.040	-3.229										
12/1/2015	4,053	284,737	725,879	0.392	-0.936										
12/2/2015	1,152	176,382	725,879	0.243	-1.415										
12/3/2015	338	60,880	725,879	0.084	-2.478										
12/4/2015	435	34,684	725,879	0.048	-3.041										
12/5/2015	111	27,685	725,879	0.038	-3.266										
12/6/2015	181	27,314	725,879	0.038	-3.280										
12/7/2015	17	4,013	725,879	0.006	-5.198										
12/8/2015	521	108,164	725,879	0.149	-1.904										
12/9/2015	1,259	195,087	725,879	0.269	-1.314										
12/10/2015	665	139,271	725,879	0.192	-1.651										
12/11/2015	246	33,512	725,879	0.046	-3.075										
12/12/2015	48	12,571	725,879	0.017	-4.056										
12/13/2015	11	2,277	725,879	0.003	-5.765										
12/14/2015	1,016	90,796	725,879	0.125	-2.079										
12/15/2015	1,376	229,627	725,879	0.316	-1.151										
12/16/2015	446	102,858	725,879	0.142	-1.954										
12/17/2015	341	93,281	725,879	0.129	-2.052										
12/18/2015	1,142	100,861	725,879	0.139	-1.974										
12/19/2015	1,952	200,083	725,879	0.276	-1.289										
12/20/2015	810	48,512	725,879	0.067	-2.706										
12/21/2015	1,497	294,061	725,879	0.405	-0.904										
12/22/2015	4,841	454,094	725,879	0.626	-0.469										
12/23/2015	553	44,009	725,879	0.061	-2.803										
12/24/2015	708	106,941	725,879	0.147	-1.915										
12/25/2015	37	3,634	725,879	0.005	-5.297										
12/26/2015	219	54,270	725,879	0.075	-2.593										
12/27/2015	2,275	241,071	725,879	0.332	-1.102										
12/28/2015	12,943	2,478,118	725,879	3.414	1.228										
12/29/2015	3,198	857,287	725,879	1.181	0.166										
12/30/2015	84	19,422	725,879	0.027	-3.621										
12/31/2015	68	9,969	725,879	0.014	-4.288										
1/1/2016	482	76,547	726,233	0.105	-2.250										
1/2/2016	-	-	726,233												
1/3/2016	358	102,451	726,233	0.141	-1.958										
1/4/2016	307	45,361	726,233	0.062	-2.773										
1/5/2016	2,001	99,336	726,233	0.137	-1.989										
1/6/2016	73	10,827	726,233	0.015	-4.206										
1/7/2016	205	25,519	726,233	0.035	-3.348										
1/8/2016	345	39,414	726,233	0.054	-2.914										
1/9/2016	1,183	97,418	726,233	0.134	-2.009										
1/10/2016	12,979	2,913,409	726,233	4.012	1.389										
1/11/2016	128	20,713	726,233	0.029	-3.557										
1/12/2016	320	56,331	726,233	0.078	-2.557										
1/13/2016	650	62,897	726,233	0.087	-2.446										
1/14/2016	392	50,485	726,233	0.070	-2.666										
1/15/2016	510	72,165	726,233	0.099	-2.309										
1/16/2016	400	55,667	726,233	0.077	-2.568										
1/17/2016	364	80,645	726,233	0.111	-2.198										
1/18/2016	2,402	109,961	726,233	0.151	-1.888										
1/19/2016	87	6,269	726,233	0.009	-4.752										
1/20/2016	1,324	148,069	726,233	0.204	-1.590										
1/21/2016	1	157	726,233	0.000	-8.439										
1/22/2016	855	24,764	726,233	0.034	-3.378										
1/23/2016	268	33,022	726,233	0.045	-3.091										
1/24/2016	787	85,714	726,233	0.118	-2.137										
1/25/2016	1,954	310,578	726,233	0.428	-0.849										
1/26/2016	258	34,391	726,233	0.047	-3.050										
1/27/2016	57,414	1,479,418	726,233	2.037	0.712										
1/28/2016	75	9,069	726,233	0.012	-4.383										
1/29/2016	1,227	75,207	726,233	0.104	-2.268										
1/30/2016	206	19,894	726,233	0.027	-3.597										
1/31/2016	130	11,327	726,233	0.016	-4.161										
2/1/2016	8,494	722,468	726,233	0.995	-0.005										
2/2/2016	474	53,947	726,233	0.074	-2.600										
2/3/2016	4,070	576,409	726,233	0.794	-0.231										
2/4/2016	114	22,782	726,233	0.031	-3.462										
2/5/2016	200	28,355	726,233	0.039	-3.243										
2/6/2016	11	1,892	726,233	0.003	-5.950										
2/7/2016	132	28,578	726,233	0.039	-3.235										
2/8/2016	5,259	120,464	726,233	0.166	-1.797										
2/9/2016	303	40,755	726,233	0.056	-2.880										
2/10/2016	208	38,050	726,233	0.052	-2.949										
2/11/2016	905	28,154	726,233	0.039	-3.250										
2/12/2016	302	59,268	726,233	0.082	-2.506										
2/13/2016	3,176	183,032	726,233	0.252	-1.378										
2/14/2016	3	382	726,233	0.001	-7.550										
2/15/2016	1,963	326,933	726,233	0.450	-0.798										
2/16/2016	25,905	507,677	726,233	0.699	-0.358										
2/17/2016	161	29,202	726,233	0.040	-3.214										
2/18/2016	1,664	194,132	726,233	0.267	-1.319										
2/19/2016	8,426	1,354,635	726,233	1.865	0.623										
2/20/2016	21,032	5,576,488	726,233	7.679	2.038										

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
2/21/2016	612	90,230	726,233	0.124	-2.086										
2/22/2016	87	11,376	726,233	0.016	-4.156										
2/23/2016	185	41,169	726,233	0.057	-2.870										
2/24/2016	2,134	245,961	726,233	0.339	-1.083										
2/25/2016	2,332	226,819	726,233	0.312	-1.164										
2/26/2016	286	51,335	726,233	0.071	-2.649										
2/27/2016	172	47,664	726,233	0.066	-2.724										
2/28/2016	785	114,128	726,233	0.157	-1.851										
2/29/2016	3,630	390,573	726,233	0.538	-0.620										
3/1/2016	1,047	135,808	726,233	0.187	-1.677										
3/2/2016	271	32,569	726,233	0.045	-3.105										
3/3/2016	304	22,872	726,233	0.031	-3.458										
3/4/2016	111	20,100	726,233	0.028	-3.587										
3/5/2016	34	5,392	726,233	0.007	-4.903										
3/6/2016	8	1,602	726,233	0.002	-6.117										
3/7/2016	58	16,966	726,233	0.023	-3.757										
3/8/2016	468	77,258	726,233	0.106	-2.241										
3/9/2016	98	12,542	726,233	0.017	-4.059										
3/10/2016	3,554	366,702	726,233	0.505	-0.683										
3/11/2016	287	45,542	726,233	0.063	-2.769										
3/12/2016	69	9,346	726,233	0.013	-4.353										
3/13/2016	1,130	114,490	726,233	0.158	-1.847										
3/14/2016	500	62,904	726,233	0.087	-2.446										
3/15/2016	2,154	173,862	726,233	0.239	-1.430										
3/16/2016	5,512	280,004	726,233	0.386	-0.953										
3/17/2016	293	46,168	726,233	0.064	-2.756										
3/18/2016	79	12,714	726,233	0.018	-4.045										
3/19/2016	2,057	90,863	726,233	0.125	-2.079										
3/20/2016	31	4,515	726,233	0.006	-5.080										
3/21/2016	1,086	76,917	726,233	0.106	-2.245										
3/22/2016	2,112	109,489	726,233	0.151	-1.892										
3/23/2016	110	16,806	726,233	0.023	-3.766										
3/24/2016	4,778	437,648	726,233	0.603	-0.506										
3/25/2016	585	92,307	726,233	0.127	-2.063										
3/26/2016	1	304	726,233	0.000	-7.779										
3/27/2016	23	3,551	726,233	0.005	-5.321										
3/28/2016	5,198	607,598	726,233	0.837	-0.178										
3/29/2016	214	23,019	726,233	0.032	-3.452										
3/30/2016	195	24,344	726,233	0.034	-3.396										
3/31/2016	614	94,001	726,233	0.129	-2.045										
4/1/2016	1,674	156,483	726,233	0.215	-1.535										
4/2/2016	10,913	1,865,366	726,233	2.569	0.943										
4/3/2016	1,415	213,327	726,233	0.294	-1.225										
4/4/2016	3,043	260,619	726,233	0.359	-1.025										
4/5/2016	1,036	101,193	726,233	0.139	-1.971										
4/6/2016	320	38,940	726,233	0.054	-2.926										
4/7/2016	597	80,206	726,233	0.110	-2.203										
4/8/2016	260	99,246	726,233	0.137	-1.990										
4/9/2016	1,931	427,240	726,233	0.588	-0.531										
4/10/2016	890	97,655	726,233	0.134	-2.006										
4/11/2016	1,309	132,337	726,233	0.182	-1.703										
4/12/2016	1,744	180,342	726,233	0.248	-1.393										
4/13/2016	94	19,426	726,233	0.027	-3.621										
4/14/2016	76	14,191	726,233	0.020	-3.935										
4/15/2016	7,033	619,945	726,233	0.854	-0.158										
4/16/2016	1,822	149,062	726,233	0.205	-1.584										
4/17/2016	101	27,455	726,233	0.038	-3.275										
4/18/2016	4,438	144,099	726,233	0.198	-1.617										
4/19/2016	314	54,832	726,233	0.076	-2.584										
4/20/2016	971	93,192	726,233	0.128	-2.053										
4/21/2016	92	18,120	726,233	0.025	-3.691										
4/22/2016	954	130,825	726,233	0.180	-1.714										
4/23/2016	161	17,364	726,233	0.024	-3.733										
4/24/2016	115	14,344	726,233	0.020	-3.925										
4/25/2016	165	22,529	726,233	0.031	-3.473										
4/26/2016	11,200	975,521	726,233	1.343	0.295										
4/27/2016	397	51,136	726,233	0.070	-2.653										
4/28/2016	220	16,182	726,233	0.022	-3.804										
4/29/2016	96	10,025	726,233	0.014	-4.283										
4/30/2016	23	4,734	726,233	0.007	-5.033										
5/1/2016	1,285	101,140	726,233	0.139	-1.971										
5/2/2016	2,476	241,689	726,233	0.333	-1.100										
5/3/2016	157	23,596	726,233	0.032	-3.427										
5/4/2016	1,012	78,904	726,233	0.109	-2.220										
5/5/2016	430	39,499	726,233	0.054	-2.912										
5/6/2016	437	79,828	726,233	0.110	-2.208										
5/7/2016	90	14,446	726,233	0.020	-3.917										
5/8/2016	229	47,885	726,233	0.066	-2.719										
5/9/2016	136	13,331	726,233	0.018	-3.998										
5/10/2016	1,570	115,394	726,233	0.159	-1.840										
5/11/2016	106	20,350	726,233	0.028	-3.575										
5/12/2016	101	26,474	726,233	0.036	-3.312										
5/13/2016	791	74,592	726,233	0.103	-2.276										
5/14/2016	239	32,789	726,233	0.045	-3.098										
5/15/2016	495	90,209	726,233	0.124	-2.086										
5/16/2016	8,955	548,174	726,233	0.755	-0.281										
5/17/2016	205	33,994	726,233	0.047	-3.062										
5/18/2016	1,205	106,316	726,233	0.146	-1.921										
5/19/2016	126	15,738	726,233	0.022	-3.832										
5/20/2016	73	20,417	726,233	0.028	-3.572										
5/21/2016	809	134,568	726,233	0.185	-1.686										
5/22/2016	238	18,983	726,233	0.026	-3.644										
5/23/2016	1,268	40,877	726,233	0.056	-2.877										
5/24/2016	2,759	128,188	726,233	0.177	-1.734										
5/25/2016	1,209	192,576	726,233	0.265	-1.327										
5/26/2016	3,912	289,001	726,233	0.398	-0.921										
5/27/2016	348	60,724	726,233	0.084	-2.482										
5/28/2016	848	184,225	726,233	0.254	-1.372										
5/29/2016	1,249	301,748	726,233	0.415	-0.878										
5/30/2016	2,959	322,784	726,233	0.444	-0.811										
5/31/2016	282	44,575	726,233	0.061	-2.791										
6/1/2016	390	38,372	726,233	0.053	-2.941										
6/2/2016	171	24,794	726,233	0.034	-3.377										
6/3/2016	3,042	160,117	726,233	0.220	-1.512										
6/4/2016	196	27,748	726,233	0.038	-3.265										
6/5/2016	4,578	550,043	726,233	0.757	-0.278										
6/6/2016	10,025	1,014,460	726,233	1.397	0.334										
6/7/2016	1,509	235,759	726,233	0.325	-1.125										

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
6/8/2016	1,415	212,167	726,233	0.292	-1.230										
6/9/2016	336	63,904	726,233	0.088	-2.430										
6/10/2016	1,285	171,695	726,233	0.236	-1.442										
6/11/2016	2,211	230,122	726,233	0.317	-1.149										
6/12/2016	4,865	511,233	726,233	0.704	-0.351										
6/13/2016	603	79,906	726,233	0.110	-2.207										
6/14/2016	526	64,491	726,233	0.089	-2.421										
6/15/2016	880	90,930	726,233	0.125	-2.078										
6/16/2016	11,478	874,106	726,233	1.204	0.185										
6/17/2016	1,283	170,331	726,233	0.235	-1.450										
6/18/2016	815	132,441	726,233	0.182	-1.702										
6/19/2016	1,088	183,701	726,233	0.253	-1.375										
6/20/2016	6,625	727,440	726,233	1.002	0.002										
6/21/2016	1,787	145,757	726,233	0.201	-1.606										
6/22/2016	1,351	126,105	726,233	0.174	-1.751										
6/23/2016	937	112,541	726,233	0.155	-1.865										
6/24/2016	2,259	256,847	726,233	0.354	-1.039										
6/25/2016	876	107,912	726,233	0.149	-1.907										
6/26/2016	1,373	174,951	726,233	0.241	-1.423										
6/27/2016	5,079	858,873	726,233	1.183	0.168										
6/28/2016	1,388	100,304	726,233	0.138	-1.980										
6/29/2016	259	33,049	726,233	0.046	-3.090										
6/30/2016	7,459	494,093	726,233	0.680	-0.385										
7/1/2016	299	70,925	726,233	0.098	-2.326										
7/2/2016	247	36,500	726,233	0.050	-2.991										
7/3/2016	6,499	378,415	726,233	0.521	-0.652										
7/4/2016	2,192	127,981	726,233	0.176	-1.736										
7/5/2016	2,552	252,635	726,233	0.348	-1.056										
7/6/2016	419	97,867	726,233	0.135	-2.004										
7/7/2016	348	75,342	726,233	0.104	-2.266										
7/8/2016	6,444	669,148	726,233	0.921	-0.082										
7/9/2016	344	68,745	726,233	0.095	-2.357										
7/10/2016	190	51,964	726,233	0.072	-2.637										
7/11/2016	2,275	150,029	726,233	0.207	-1.577										
7/12/2016	6,218	364,663	726,233	0.502	-0.689										
7/13/2016	30,534	11,000,422	726,233	15.147	2.718										
7/14/2016	9,214	1,412,470	726,233	1.945	0.665										
7/15/2016	613	95,953	726,233	0.132	-2.024										
7/16/2016	3,383	318,879	726,233	0.439	-0.823										
7/17/2016	740	56,934	726,233	0.078	-2.546										
7/18/2016	8,315	889,360	726,233	1.225	0.203										
7/19/2016	549	106,994	726,233	0.147	-1.915										
7/20/2016	411	64,410	726,233	0.089	-2.423										
7/21/2016	975	101,428	726,233	0.140	-1.969										
7/22/2016	4,175	510,863	726,233	0.703	-0.352										
7/23/2016	420	143,106	726,233	0.197	-1.624										
7/24/2016	7,886	496,749	726,233	0.684	-0.380										
7/25/2016	1,511	243,637	726,233	0.335	-1.092										
7/26/2016	829	140,944	726,233	0.194	-1.640										
7/27/2016	398	56,631	726,233	0.078	-2.551										
7/28/2016	734	175,751	726,233	0.242	-1.419										
7/29/2016	6,969	453,159	726,233	0.624	-0.472										
7/30/2016	4,624	1,102,017	726,233	1.517	0.417										
7/31/2016	1,725	230,809	726,233	0.318	-1.146										
8/1/2016	1,186	155,517	726,233	0.214	-1.541										
8/2/2016	485	129,371	726,233	0.178	-1.725										
8/3/2016	5,186	1,090,365	726,233	1.501	0.406										
8/4/2016	1,046	108,526	726,233	0.149	-1.901										
8/5/2016	1,202	211,115	726,233	0.291	-1.235										
8/6/2016	599	147,299	726,233	0.203	-1.595										
8/7/2016	103	17,304	726,233	0.024	-3.737										
8/8/2016	3,808	176,276	726,233	0.243	-1.416										
8/9/2016	41,579	24,934,837	726,233	34.334	3.536										
8/10/2016	12,679	7,502,748	726,233	10.331	2.335										
8/11/2016	63,865	24,342,712	726,233	33.519	3.512										
8/12/2016	23,198	2,380,350	726,233	3.278	1.187										
8/13/2016	8,954	1,691,206	726,233	2.329	0.845										
8/14/2016	1,479	369,452	726,233	0.509	-0.676										
8/15/2016	1,263	208,382	726,233	0.287	-1.248										
8/16/2016	11,130	708,136	726,233	0.975	-0.025										
8/17/2016	3,000	337,508	726,233	0.465	-0.766										
8/18/2016	652	61,785	726,233	0.085	-2.464										
8/19/2016	2,137	218,817	726,233	0.301	-1.200										
8/20/2016	3,344	421,050	726,233	0.580	-0.545										
8/21/2016	739	95,831	726,233	0.132	-2.025										
8/22/2016	2,517	339,596	726,233	0.468	-0.760										
8/23/2016	535	101,716	726,233	0.140	-1.966										
8/24/2016	3,773	420,033	726,233	0.578	-0.548										
8/25/2016	9,367	936,180	726,233	1.289	0.254										
8/26/2016	1,859	169,851	726,233	0.234	-1.453										
8/27/2016	806	147,487	726,233	0.203	-1.594										
8/28/2016	1,024	134,017	726,233	0.185	-1.690										
8/29/2016	333	79,023	726,233	0.109	-2.218										
8/30/2016	1,042	244,465	726,233	0.337	-1.089										
8/31/2016	852	95,473	726,233	0.131	-2.029										
9/1/2016	239	59,126	726,233	0.081	-2.508										
9/2/2016	758	177,544	726,233	0.244	-1.409										
9/3/2016	347	55,360	726,233	0.076	-2.574										
9/4/2016	461	66,108	726,233	0.091	-2.397										
9/5/2016	372	51,228	726,233	0.071	-2.652										
9/6/2016	526	57,785	726,233	0.080	-2.531										
9/7/2016	16,382	1,376,562	726,233	1.895	0.639										
9/8/2016	1,516	305,765	726,233	0.421	-0.865										
9/9/2016	1,088	255,908	726,233	0.352	-1.043										
9/10/2016	5,162	1,271,908	726,233	1.751	0.560										
9/11/2016	2,354	458,920	726,233	0.632	-0.459										
9/12/2016	1,585	259,522	726,233	0.357	-1.029										
9/13/2016	249	63,024	726,233	0.087	-2.444										
9/14/2016	624	99,284	726,233	0.137	-1.990										
9/15/2016	642	109,145	726,233	0.150	-1.895										
9/16/2016	540	120,499	726,233	0.166	-1.796										
9/17/2016	8,079	1,035,315	726,233	1.426	0.355										
9/18/2016	391	70,647	726,233	0.097	-2.330										
9/19/2016	367	62,314	726,233	0.086	-2.456										
9/20/2016	752	174,364	726,233	0.240	-1.427										
9/21/2016	518	118,986	726,233	0.164	-1.809										
9/22/2016	1,244	188,472	726,233	0.260	-1.349										
9/23/2016	323	47,436	726,233	0.065	-2.728										

Major Event Day Thresholds ("TMED") Calculations - CEI

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
9/24/2016	446	52,412	726,233	0.072	-2.629										
9/25/2016	237	56,772	726,233	0.078	-2.549										
9/26/2016	914	124,488	726,233	0.171	-1.764										
9/27/2016	648	156,859	726,233	0.216	-1.533										
9/28/2016	1,310	174,845	726,233	0.241	-1.424										
9/29/2016	4,117	502,307	726,233	0.692	-0.369										
9/30/2016	6,028	516,002	726,233	0.711	-0.342										
10/1/2016	186	43,917	726,233	0.060	-2.806										
10/2/2016	1,269	164,009	726,233	0.226	-1.488										
10/3/2016	697	115,321	726,233	0.159	-1.840										
10/4/2016	242	46,607	726,233	0.064	-2.746										
10/5/2016	1,135	111,376	726,233	0.153	-1.875										
10/6/2016	361	72,446	726,233	0.100	-2.305										
10/7/2016	245	45,033	726,233	0.062	-2.780										
10/8/2016	6,607	235,906	726,233	0.325	-1.124										
10/9/2016	566	91,235	726,233	0.126	-2.074										
10/10/2016	292	58,521	726,233	0.081	-2.518										
10/11/2016	682	105,389	726,233	0.145	-1.930										
10/12/2016	837	97,832	726,233	0.135	-2.005										
10/13/2016	15,756	914,117	726,233	1.259	0.230										
10/14/2016	435	65,969	726,233	0.091	-2.399										
10/15/2016	25	2,547	726,233	0.004	-5.653										
10/16/2016	1,136	115,619	726,233	0.159	-1.838										
10/17/2016	1,361	251,794	726,233	0.347	-1.059										
10/18/2016	3,649	430,588	726,233	0.593	-0.523										
10/19/2016	433	80,902	726,233	0.111	-2.195										
10/20/2016	3,274	482,231	726,233	0.664	-0.409										
10/21/2016	11,956	1,368,378	726,233	1.884	0.634										
10/22/2016	841	121,558	726,233	0.167	-1.787										
10/23/2016	292	37,883	726,233	0.052	-2.953										
10/24/2016	2,144	332,703	726,233	0.458	-0.781										
10/25/2016	11,560	1,178,582	726,233	1.623	0.484										
10/26/2016	304	56,076	726,233	0.077	-2.561										
10/27/2016	2,041	382,785	726,233	0.527	-0.640										
10/28/2016	1,736	182,212	726,233	0.251	-1.383										
10/29/2016	165	25,792	726,233	0.036	-3.338										
10/30/2016	4,107	434,769	726,233	0.599	-0.513										
10/31/2016	1,286	166,765	726,233	0.230	-1.471										
11/1/2016	5,211	363,366	726,233	0.500	-0.692										
11/2/2016	1,242	106,448	726,233	0.147	-1.920										
11/3/2016	7,234	1,322,479	726,233	1.821	0.599										
11/4/2016	1,372	156,461	726,233	0.215	-1.535										
11/5/2016	309	40,466	726,233	0.056	-2.887										
11/6/2016	6,573	359,050	726,233	0.494	-0.704										
11/7/2016	385	51,431	726,233	0.071	-2.648										
11/8/2016	336	57,280	726,233	0.079	-2.540										
11/9/2016	874	151,774	726,233	0.209	-1.565										
11/10/2016	354	44,455	726,233	0.061	-2.793										
11/11/2016	796	106,251	726,233	0.146	-1.922										
11/12/2016	1,230	104,628	726,233	0.144	-1.937										
11/13/2016	178	30,873	726,233	0.043	-3.158										
11/14/2016	146	15,063	726,233	0.021	-3.876										
11/15/2016	250	45,812	726,233	0.063	-2.763										
11/16/2016	2,983	19,313	726,233	0.027	-3.627										
11/17/2016	752	78,576	726,233	0.108	-2.224										
11/18/2016	651	107,373	726,233	0.148	-1.912										
11/19/2016	8,991	1,382,467	726,233	1.904	0.644										
11/20/2016	20,354	2,442,459	726,233	3.363	1.213										
11/21/2016	25,931	270,491	726,233	0.372	-0.988										
11/22/2016	169	50,528	726,233	0.070	-2.665										
11/23/2016	224	31,726	726,233	0.044	-3.131										
11/24/2016	4,153	433,768	726,233	0.597	-0.515										
11/25/2016	452	40,171	726,233	0.055	-2.895										
11/26/2016	388	203,521	726,233	0.280	-1.272										
11/27/2016	52	8,266	726,233	0.011	-4.476										
11/28/2016	214	57,188	726,233	0.079	-2.542										
11/29/2016	11,548	2,822,134	726,233	3.886	1.357										
11/30/2016	3,832	102,578	726,233	0.141	-1.957										
12/1/2016	268	46,624	726,233	0.064	-2.746										
12/2/2016	316	53,088	726,233	0.073	-2.616										
12/3/2016	273	40,042	726,233	0.055	-2.898										
12/4/2016	1,589	240,282	726,233	0.331	-1.106										
12/5/2016	1,170	210,492	726,233	0.290	-1.238										
12/6/2016	4,183	346,756	726,233	0.477	-0.739										
12/7/2016	1,102	71,253	726,233	0.098	-2.322										
12/8/2016	443	79,638	726,233	0.110	-2.210										
12/9/2016	2,469	182,999	726,233	0.252	-1.378										
12/10/2016	125	35,977	726,233	0.050	-3.005										
12/11/2016	247	15,619	726,233	0.022	-3.839										
12/12/2016	328	79,502	726,233	0.109	-2.212										
12/13/2016	376	57,027	726,233	0.079	-2.544										
12/14/2016	334	42,225	726,233	0.058	-2.845										
12/15/2016	3,320	346,846	726,233	0.478	-0.739										
12/16/2016	156	31,124	726,233	0.043	-3.150										
12/17/2016	3,389	452,517	726,233	0.623	-0.473										
12/18/2016	1,509	209,942	726,233	0.289	-1.241										
12/19/2016	191	33,499	726,233	0.046	-3.076										
12/20/2016	106	13,549	726,233	0.019	-3.982										
12/21/2016	378	56,720	726,233	0.078	-2.550										
12/22/2016	499	60,539	726,233	0.083	-2.485										
12/23/2016	437	36,233	726,233	0.050	-2.998										
12/24/2016	1,441	346,568	726,233	0.477	-0.740										
12/25/2016	222	27,019	726,233	0.037	-3.291										
12/26/2016	1,745	163,406	726,233	0.225	-1.492										
12/27/2016	2,056	337,892	726,233	0.465	-0.765										
12/28/2016	154	28,676	726,233	0.039	-3.232										
12/29/2016	91	16,038	726,233	0.022	-3.813										
12/30/2016	3,875	427,846	726,233	0.589	-0.529										
12/31/2016	32	5,080	726,233	0.007	-4.963										
1/1/2017	156	47,480	731,153	0.065	-2.734	-	-	156	47,480						
1/2/2017	28	7,805	731,153	0.011	-4.540	-	-	28	7,805						
1/3/2017	16,322	2,620,083	731,153	3.583	1.276	-	-	16,322	2,620,083						
1/4/2017	5,656	571,033	731,153	0.781	-0.247	-	-	5,656	571,033						
1/5/2017	1,330	165,518	731,153	0.226	-1.486	-	-	1,330	165,518						
1/6/2017	648	55,401	731,153	0.076	-2.580	-	-	648	55,401						
1/7/2017	305	21,906	731,153	0.030	-3.508	-	-	305	21,906						
1/8/2017	1,009	59,600	731,153	0.082	-2.507	-	-	1,009	59,600						
1/9/2017	84	17,969	731,153	0.025	-3.706	-	-	84	17,969						

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
1/10/2017	37,503	7,873,211	731,153	10.768	2.377	-	-	37,503	7,873,211	1					
1/11/2017	6,160	1,511,106	731,153	2.067	0.726	-	-	6,160	1,511,106						
1/12/2017	8,748	989,385	731,153	1.353	0.302	-	-	8,748	989,385						
1/13/2017	544	67,664	731,153	0.093	-2.380	-	-	544	67,664						
1/14/2017	69	16,911	731,153	0.023	-3.767	-	-	69	16,911						
1/15/2017	301	58,546	731,153	0.080	-2.525	-	-	301	58,546						
1/16/2017	69	12,407	731,153	0.017	-4.076	-	-	69	12,407						
1/17/2017	5,260	421,053	731,153	0.576	-0.552	-	-	5,260	421,053						
1/18/2017	21	4,252	731,153	0.006	-5.147	-	-	21	4,252						
1/19/2017	32	5,118	731,153	0.007	-4.962	-	-	32	5,118						
1/20/2017	1,907	130,108	731,153	0.178	-1.726	-	-	1,907	130,108						
1/21/2017	1,268	240,949	731,153	0.330	-1.110	-	-	1,268	240,949						
1/22/2017	300	38,567	731,153	0.053	-2.942	-	-	300	38,567						
1/23/2017	368	78,931	731,153	0.108	-2.226	-	-	368	78,931						
1/24/2017	1,644	161,857	731,153	0.221	-1.508	-	-	1,644	161,857						
1/25/2017	16,754	2,353,767	731,153	3.219	1.169	-	-	16,754	2,353,767						
1/26/2017	1,510	216,336	731,153	0.296	-1.218	-	-	1,510	216,336						
1/27/2017	4,707	74,359	731,153	0.102	-2.286	-	-	4,707	74,359						
1/28/2017	408	46,243	731,153	0.063	-2.761	-	-	408	46,243						
1/29/2017	617	66,074	731,153	0.090	-2.404	-	-	617	66,074						
1/30/2017	623	86,329	731,153	0.118	-2.136	-	-	623	86,329						
1/31/2017	505	65,745	731,153	0.090	-2.409	-	-	505	65,745						
2/1/2017	419	72,048	731,153	0.099	-2.317	-	-	419	72,048						
2/2/2017	155	28,502	731,153	0.039	-3.245	-	-	155	28,502						
2/3/2017	4,859	141,368	731,153	0.193	-1.643	-	-	4,859	141,368						
2/4/2017	35	13,496	731,153	0.018	-3.992	-	-	35	13,496						
2/5/2017	97	19,628	731,153	0.027	-3.618	-	-	97	19,628						
2/6/2017	3,429	461,586	731,153	0.631	-0.460	-	-	3,429	461,586						
2/7/2017	30,138	1,140,939	731,153	1.560	0.445	-	-	30,138	1,140,939						
2/8/2017	281	71,912	731,153	0.098	-2.319	-	-	281	71,912						
2/9/2017	130	12,204	731,153	0.017	-4.093	-	-	130	12,204						
2/10/2017	9,833	99,939	731,153	0.137	-1.990	-	-	9,833	99,939						
2/11/2017	50	6,015	731,153	0.008	-4.800	-	-	50	6,015						
2/12/2017	8,053	1,117,280	731,153	1.528	0.424	-	-	8,053	1,117,280						
2/13/2017	1,337	168,795	731,153	0.231	-1.466	-	-	1,337	168,795						
2/14/2017	214	33,583	731,153	0.046	-3.081	-	-	214	33,583						
2/15/2017	1,731	161,006	731,153	0.220	-1.513	-	-	1,731	161,006						
2/16/2017	450	44,204	731,153	0.060	-2.806	-	-	450	44,204						
2/17/2017	1,047	80,828	731,153	0.111	-2.202	-	-	1,047	80,828						
2/18/2017	2,556	247,085	731,153	0.338	-1.085	-	-	2,556	247,085						
2/19/2017	31	11,840	731,153	0.016	-4.123	-	-	31	11,840						
2/20/2017	3,100	157,339	731,153	0.215	-1.536	-	-	3,100	157,339						
2/21/2017	269	65,559	731,153	0.090	-2.412	-	-	269	65,559						
2/22/2017	1,022	105,265	731,153	0.144	-1.938	-	-	1,022	105,265						
2/23/2017	130	24,195	731,153	0.033	-3.408	-	-	130	24,195						
2/24/2017	543	93,036	731,153	0.127	-2.062	-	-	543	93,036						
2/25/2017	295	49,180	731,153	0.067	-2.699	-	-	295	49,180						
2/26/2017	48	19,677	731,153	0.027	-3.615	-	-	48	19,677						
2/27/2017	95	9,394	731,153	0.013	-4.355	-	-	95	9,394						
2/28/2017	58	7,738	731,153	0.011	-4.548	-	-	58	7,738						
3/1/2017	35,112	10,763,658	731,153	14.721	2.689	-	-	35,112	10,763,658	1					
3/2/2017	2,992	701,376	731,153	0.959	-0.042	-	-	2,992	701,376						
3/3/2017	208	35,593	731,153	0.049	-3.022	-	-	208	35,593						
3/4/2017	124	21,796	731,153	0.030	-3.513	-	-	124	21,796						
3/5/2017	218	41,255	731,153	0.056	-2.875	-	-	218	41,255						
3/6/2017	203	40,670	731,153	0.056	-2.889	-	-	203	40,670						
3/7/2017	3,450	368,709	731,153	0.504	-0.685	-	-	3,450	368,709						
3/8/2017	95,118	65,646,004	731,153	89.784	4.497	-	-	95,118	65,646,004	1					
3/9/2017	3,440	2,219,821	731,153	3.036	1.111	-	-	3,440	2,219,821						
3/10/2017	2,904	572,396	731,153	0.783	-0.245	-	-	2,904	572,396						
3/11/2017	20,088	312,815	731,153	0.428	-0.849	-	-	20,088	312,815						
3/12/2017	316	61,437	731,153	0.084	-2.477	-	-	316	61,437						
3/13/2017	4,306	202,803	731,153	0.277	-1.282	-	-	4,306	202,803						
3/14/2017	2,706	374,010	731,153	0.512	-0.670	-	-	2,706	374,010						
3/15/2017	1,475	165,471	731,153	0.226	-1.486	-	-	1,475	165,471						
3/16/2017	182	28,797	731,153	0.039	-3.234	-	-	182	28,797						
3/17/2017	936	83,150	731,153	0.114	-2.174	-	-	936	83,150						
3/18/2017	1,957	224,072	731,153	0.306	-1.183	-	-	1,957	224,072						
3/19/2017	1,715	150,213	731,153	0.205	-1.583	-	-	1,715	150,213						
3/20/2017	4,397	486,089	731,153	0.665	-0.408	-	-	4,397	486,089						
3/21/2017	202	31,522	731,153	0.043	-3.144	-	-	202	31,522						
3/22/2017	156	23,920	731,153	0.033	-3.420	-	-	156	23,920						
3/23/2017	360	49,036	731,153	0.067	-2.702	-	-	360	49,036						
3/24/2017	3,576	504,875	731,153	0.691	-0.370	-	-	3,576	504,875						
3/25/2017	30	4,418	731,153	0.006	-5.109	-	-	30	4,418						
3/26/2017	1,303	227,290	731,153	0.311	-1.168	-	-	1,303	227,290						
3/27/2017	53	5,659	731,153	0.008	-4.861	-	-	53	5,659						
3/28/2017	672	73,371	731,153	0.100	-2.299	-	-	672	73,371						
3/29/2017	1,103	62,276	731,153	0.085	-2.463	-	-	1,103	62,276						
3/30/2017	9,417	803,261	731,153	1.099	0.094	-	-	9,417	803,261						
3/31/2017	1,866	138,577	731,153	0.190	-1.663	-	-	1,866	138,577						
4/1/2017	1,194	147,315	731,153	0.201	-1.602	-	-	1,194	147,315						
4/2/2017	7,906	696,869	731,153	0.953	-0.048	-	-	7,906	696,869						
4/3/2017	423	70,948	731,153	0.097	-2.333	-	-	423	70,948						
4/4/2017	1,360	227,212	731,153	0.311	-1.169	-	-	1,360	227,212						
4/5/2017	792	207,194	731,153	0.283	-1.261	-	-	792	207,194						
4/6/2017	5,318	620,431	731,153	0.849	-0.164	-	-	5,318	620,431						
4/7/2017	33,000	3,744,806	731,153	5.122	1.634	11,219	571,713	21,781	3,173,093						
4/8/2017	164	26,371	731,153	0.036	-3.322	-	-	164	26,371						
4/9/2017	710	91,564	731,153	0.125	-2.078	-	-	710	91,564						
4/10/2017	88	21,251	731,153	0.029	-3.538	-	-	88	21,251						
4/11/2017	10,887	245,022	731,153	0.335	-1.093	-	-	10,887	245,022						
4/12/2017	2,281	193,738	731,153	0.265	-1.328	-	-	2,281	193,738						
4/13/2017	826	61,727	731,153	0.084	-2.472	-	-	826	61,727						
4/14/2017	730	81,840	731,153	0.112	-2.190	-	-	730	81,840						
4/15/2017	4,153	307,162	731,153	0.420	-0.867	-	-	4,153	307,162						
4/16/2017	490	77,541	731,153	0.106	-2.244	-	-	490	77,541						
4/17/2017	256	48,652	731,153	0.067	-2.710	-	-	256	48,652						
4/18/2017	36	4,023	731,153	0.006	-5.203	-	-	36	4,023						
4/19/2017	2,933	502,693	731,153	0.688	-0.375	-	-	2,933	502,693						
4/20/2017	1,987	346,842	731,153	0.474	-0.746	-	-	1,987	346,842						
4/21/2017	3,292	330,093	731,153	0.451	-0.795	-	-	3,292	330,093						
4/22/2017	244	40,751	731,153	0.056	-2.887	-	-	244	40,751						
4/23/2017	227	23,639	731,153	0.032	-3.432	-	-	227	23,639						
4/24/2017	371	56,251	731,153	0.077	-2.565	-	-	371	56,251						
4/25/2017	2,160	197,491	731,153	0.270	-1.309	-	-	2,160	197,491						
4/26/2017	337	48,171	731,153	0.066	-2.720	-	-	337	48,171						
4/27/2017	1,653	164,047	731,153	0.224	-1.494	-	-	1,653	164,047						

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
4/28/2017	194	31,556	731,153	0.043	-3.143	-	-	194	31,556						
4/29/2017	2,798	456,794	731,153	0.625	-0.470	-	-	2,798	456,794						
4/30/2017	925	60,092	731,153	0.082	-2.499	-	-	925	60,092						
5/1/2017	2,401	580,673	731,153	0.794	-0.230	-	-	2,401	580,673						
5/2/2017	1,672	264,683	731,153	0.362	-1.016	-	-	1,672	264,683						
5/3/2017	4,953	626,284	731,153	0.857	-0.155	-	-	4,953	626,284						
5/4/2017	189	36,895	731,153	0.050	-2.987	-	-	189	36,895						
5/5/2017	1,571	476,044	731,153	0.651	-0.429	-	-	1,571	476,044						
5/6/2017	2,192	334,613	731,153	0.458	-0.782	-	-	2,192	334,613						
5/7/2017	346	61,702	731,153	0.084	-2.472	-	-	346	61,702						
5/8/2017	179	30,394	731,153	0.042	-3.180	-	-	179	30,394						
5/9/2017	234	49,172	731,153	0.067	-2.699	-	-	234	49,172						
5/10/2017	515	139,888	731,153	0.191	-1.654	-	-	515	139,888						
5/11/2017	2,740	222,126	731,153	0.304	-1.191	-	-	2,740	222,126						
5/12/2017	2,772	184,437	731,153	0.252	-1.377	-	-	2,772	184,437						
5/13/2017	1,239	114,227	731,153	0.156	-1.856	-	-	1,239	114,227						
5/14/2017	111	17,071	731,153	0.023	-3.757	-	-	111	17,071						
5/15/2017	297	20,797	731,153	0.028	-3.560	-	-	297	20,797						
5/16/2017	1,205	84,416	731,153	0.115	-2.159	-	-	1,205	84,416						
5/17/2017	1,632	259,709	731,153	0.355	-1.035	-	-	1,632	259,709						
5/18/2017	3,432	242,637	731,153	0.332	-1.103	-	-	3,432	242,637						
5/19/2017	287	50,121	731,153	0.069	-2.680	-	-	287	50,121						
5/20/2017	413	115,685	731,153	0.158	-1.844	-	-	413	115,685						
5/21/2017	828	132,019	731,153	0.181	-1.712	-	-	828	132,019						
5/22/2017	452	85,380	731,153	0.117	-2.148	-	-	452	85,380						
5/23/2017	596	112,142	731,153	0.153	-1.875	-	-	596	112,142						
5/24/2017	8,605	419,229	731,153	0.573	-0.556	-	-	8,605	419,229						
5/25/2017	428	69,963	731,153	0.096	-2.347	-	-	428	69,963						
5/26/2017	10,345	179,568	731,153	0.246	-1.404	-	-	10,345	179,568						
5/27/2017	1,492	122,185	731,153	0.167	-1.789	-	-	1,492	122,185						
5/28/2017	4,116	323,674	731,153	0.443	-0.815	-	-	4,116	323,674						
5/29/2017	8,442	410,238	731,153	0.561	-0.578	-	-	8,442	410,238						
5/30/2017	1,004	151,795	731,153	0.208	-1.572	-	-	1,004	151,795						
5/31/2017	1,804	162,628	731,153	0.222	-1.503	-	-	1,804	162,628						
6/1/2017	227	34,643	731,153	0.047	-3.050	-	-	227	34,643						
6/2/2017	347	54,161	731,153	0.074	-2.603	-	-	347	54,161						
6/3/2017	480	92,650	731,153	0.127	-2.066	-	-	480	92,650						
6/4/2017	431	75,803	731,153	0.104	-2.266	-	-	431	75,803						
6/5/2017	6,556	653,359	731,153	0.894	-0.112	-	-	6,556	653,359						
6/6/2017	271	59,008	731,153	0.081	-2.517	-	-	271	59,008						
6/7/2017	452	88,853	731,153	0.122	-2.108	-	-	452	88,853						
6/8/2017	238	57,432	731,153	0.079	-2.544	-	-	238	57,432						
6/9/2017	224	43,957	731,153	0.060	-2.811	-	-	224	43,957						
6/10/2017	2,042	338,201	731,153	0.463	-0.771	-	-	2,042	338,201						
6/11/2017	680	141,298	731,153	0.193	-1.644	-	-	680	141,298						
6/12/2017	4,192	471,165	731,153	0.644	-0.439	-	-	4,192	471,165						
6/13/2017	3,918	576,972	731,153	0.789	-0.237	-	-	3,918	576,972						
6/14/2017	2,633	326,080	731,153	0.446	-0.807	-	-	2,633	326,080						
6/15/2017	1,113	258,662	731,153	0.354	-1.039	-	-	1,113	258,662						
6/16/2017	5,849	1,008,245	731,153	1.379	0.321	-	-	5,849	1,008,245						
6/17/2017	759	233,693	731,153	0.320	-1.141	-	-	759	233,693						
6/18/2017	9,121	1,314,798	731,153	1.798	0.587	-	-	9,121	1,314,798						
6/19/2017	3,750	664,688	731,153	0.909	-0.095	-	-	3,750	664,688						
6/20/2017	18,256	902,892	731,153	1.235	0.211	-	-	18,256	902,892						
6/21/2017	462	83,623	731,153	0.114	-2.168	-	-	462	83,623						
6/22/2017	779	125,251	731,153	0.171	-1.764	-	-	779	125,251						
6/23/2017	2,350	354,382	731,153	0.485	-0.724	-	-	2,350	354,382						
6/24/2017	141	24,069	731,153	0.033	-3.414	-	-	141	24,069						
6/25/2017	1,983	257,491	731,153	0.352	-1.044	-	-	1,983	257,491						
6/26/2017	472	100,534	731,153	0.138	-1.984	-	-	472	100,534						
6/27/2017	571	150,399	731,153	0.206	-1.581	-	-	571	150,399						
6/28/2017	496	78,460	731,153	0.107	-2.232	-	-	496	78,460						
6/29/2017	1,044	186,987	731,153	0.256	-1.364	-	-	1,044	186,987						
6/30/2017	3,910	762,405	731,153	1.043	0.042	-	-	3,910	762,405						
7/1/2017	2,927	550,181	731,153	0.752	-0.284	-	-	2,927	550,181						
7/2/2017	1,005	175,364	731,153	0.240	-1.428	-	-	1,005	175,364						
7/3/2017	184	37,907	731,153	0.052	-2.959	-	-	184	37,907						
7/4/2017	100	18,034	731,153	0.025	-3.702	-	-	100	18,034						
7/5/2017	254	33,572	731,153	0.046	-3.081	-	-	254	33,572						
7/6/2017	607	81,572	731,153	0.112	-2.193	-	-	607	81,572						
7/7/2017	1,679	399,928	731,153	0.547	-0.603	-	-	1,679	399,928						
7/8/2017	1,742	426,789	731,153	0.584	-0.538	-	-	1,742	426,789						
7/9/2017	915	123,012	731,153	0.168	-1.782	-	-	915	123,012						
7/10/2017	5,947	371,989	731,153	0.509	-0.676	-	-	5,947	371,989						
7/11/2017	1,260	144,545	731,153	0.198	-1.621	-	-	1,260	144,545						
7/12/2017	1,226	191,042	731,153	0.261	-1.342	-	-	1,226	191,042						
7/13/2017	1,219	277,126	731,153	0.379	-0.970	-	-	1,219	277,126						
7/14/2017	1,206	197,198	731,153	0.270	-1.310	-	-	1,206	197,198						
7/15/2017	181	54,150	731,153	0.074	-2.603	-	-	181	54,150						
7/16/2017	945	143,205	731,153	0.196	-1.630	-	-	945	143,205						
7/17/2017	200	45,897	731,153	0.063	-2.768	-	-	200	45,897						
7/18/2017	640	121,603	731,153	0.166	-1.794	-	-	640	121,603						
7/19/2017	13,348	837,119	731,153	1.145	0.135	-	-	13,348	837,119						
7/20/2017	1,389	176,363	731,153	0.241	-1.422	-	-	1,389	176,363						
7/21/2017	1,856	374,128	731,153	0.512	-0.670	-	-	1,856	374,128						
7/22/2017	6,586	143,599	731,153	0.196	-1.628	-	-	6,586	143,599						
7/23/2017	687	340,749	731,153	0.466	-0.763	-	-	687	340,749						
7/24/2017	1,311	145,769	731,153	0.199	-1.613	-	-	1,311	145,769						
7/25/2017	1,566	122,578	731,153	0.168	-1.786	-	-	1,566	122,578						
7/26/2017	562	90,613	731,153	0.124	-2.088	-	-	562	90,613						
7/27/2017	295	79,940	731,153	0.109	-2.213	-	-	295	79,940						
7/28/2017	7,202	1,586,658	731,153	2.170	0.775	-	-	7,202	1,586,658						
7/29/2017	506	102,526	731,153	0.140	-1.965	-	-	506	102,526						
7/30/2017	354	68,686	731,153	0.094	-2.365	-	-	354	68,686						
7/31/2017	693	121,605	731,153	0.166	-1.794	-	-	693	121,605						
8/1/2017	4,495	231,366	731,153	0.316	-1.151	-	-	4,495	231,366						
8/2/2017	1,572	328,054	731,153	0.449	-0.801	-	-	1,572	328,054						
8/3/2017	2,846	943,335	731,153	1.290	0.255	-	-	2,846	943,335						
8/4/2017	9,407	1,515,230	731,153	2.072	0.729	-	-	9,407	1,515,230						
8/5/2017	208	46,378	731,153	0.063	-2.758	-	-	208	46,378						
8/6/2017	519	136,990	731,153	0.187	-1.675	-	-	519	136,990						
8/7/2017	1,232	208,759	731,153	0.286	-1.253	-	-	1,232	208,759						
8/8/2017	284	59,489	731,153	0.081	-2.509	-	-	284	59,489						
8/9/2017	546	64,976	731,153	0.089	-2.421	-	-	546	64,976						
8/10/2017	293	67,837	731,153	0.093	-2.378	-	-	293	67,837						
8/11/2017	728	141,086	731,153	0.193	-1.645	-	-	728	141,086						
8/12/2017	3,821	325,370	731,153	0.445	-0.810	-	-	3,821	325,370						
8/13/2017	4,739	354,782	731,153	0.485	-0.723	-	-	4,739	354,782						

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
8/14/2017	409	77,640	731,153	0.106	-2.243	-	-	409	77,640						
8/15/2017	4,328	366,141	731,153	0.501	-0.692	-	-	4,328	366,141						
8/16/2017	1,269	241,454	731,153	0.330	-1.108	-	-	1,269	241,454						
8/17/2017	860	150,790	731,153	0.206	-1.579	-	-	860	150,790						
8/18/2017	839	140,657	731,153	0.192	-1.648	-	-	839	140,657						
8/19/2017	313	73,162	731,153	0.100	-2.302	-	-	313	73,162						
8/20/2017	3,050	320,984	731,153	0.439	-0.823	-	-	3,050	320,984						
8/21/2017	3,614	495,041	731,153	0.677	-0.390	-	-	3,614	495,041						
8/22/2017	4,755	940,559	731,153	1.286	0.252	-	-	4,755	940,559						
8/23/2017	351	30,646	731,153	0.042	-3.172	-	-	351	30,646						
8/24/2017	658	124,056	731,153	0.170	-1.774	-	-	658	124,056						
8/25/2017	347	19,904	731,153	0.027	-3.604	-	-	347	19,904						
8/26/2017	147	36,708	731,153	0.050	-2.992	-	-	147	36,708						
8/27/2017	437	197,671	731,153	0.270	-1.308	-	-	437	197,671						
8/28/2017	1,894	210,295	731,153	0.288	-1.246	-	-	1,894	210,295						
8/29/2017	504	100,509	731,153	0.137	-1.984	-	-	504	100,509						
8/30/2017	270	53,992	731,153	0.074	-2.606	-	-	270	53,992						
8/31/2017	980	115,004	731,153	0.157	-1.850	-	-	980	115,004						
9/1/2017	900	92,265	731,153	0.126	-2.070	-	-	900	92,265						
9/2/2017	778	104,815	731,153	0.143	-1.942	-	-	778	104,815						
9/3/2017	489	131,593	731,153	0.180	-1.715	-	-	489	131,593						
9/4/2017	3,610	444,462	731,153	0.608	-0.498	-	-	3,610	444,462						
9/5/2017	1,538	256,359	731,153	0.351	-1.048	-	-	1,538	256,359						
9/6/2017	1,389	151,927	731,153	0.208	-1.571	-	-	1,389	151,927						
9/7/2017	509	123,981	731,153	0.170	-1.774	-	-	509	123,981						
9/8/2017	843	158,139	731,153	0.216	-1.531	-	-	843	158,139						
9/9/2017	4,848	1,050,385	731,153	1.437	0.362	-	-	4,848	1,050,385						
9/10/2017	163	23,979	731,153	0.033	-3.417	-	-	163	23,979						
9/11/2017	667	22,044	731,153	0.030	-3.502	-	-	667	22,044						
9/12/2017	125	20,326	731,153	0.028	-3.583	-	-	125	20,326						
9/13/2017	820	165,784	731,153	0.227	-1.484	-	-	820	165,784						
9/14/2017	305	50,174	731,153	0.069	-2.679	-	-	305	50,174						
9/15/2017	203	20,160	731,153	0.028	-3.591	-	-	203	20,160						
9/16/2017	4,818	300,555	731,153	0.411	-0.889	-	-	4,818	300,555						
9/17/2017	761	48,146	731,153	0.066	-2.720	-	-	761	48,146						
9/18/2017	1,773	127,027	731,153	0.174	-1.750	-	-	1,773	127,027						
9/19/2017	486	119,652	731,153	0.164	-1.810	-	-	486	119,652						
9/20/2017	1,064	112,542	731,153	0.154	-1.871	-	-	1,064	112,542						
9/21/2017	1,257	78,139	731,153	0.107	-2.236	-	-	1,257	78,139						
9/22/2017	664	83,680	731,153	0.114	-2.168	-	-	664	83,680						
9/23/2017	418	81,923	731,153	0.112	-2.189	-	-	418	81,923						
9/24/2017	479	120,974	731,153	0.165	-1.799	-	-	479	120,974						
9/25/2017	6,642	830,967	731,153	1.137	0.128	-	-	6,642	830,967						
9/26/2017	1,275	212,936	731,153	0.291	-1.234	-	-	1,275	212,936						
9/27/2017	1,308	140,436	731,153	0.192	-1.650	-	-	1,308	140,436						
9/28/2017	3,566	300,286	731,153	0.411	-0.890	-	-	3,566	300,286						
9/29/2017	254	36,733	731,153	0.050	-2.991	-	-	254	36,733						
9/30/2017	175	49,066	731,153	0.067	-2.701	-	-	175	49,066						
10/1/2017	179	34,583	731,153	0.047	-3.051	-	-	179	34,583						
10/2/2017	362	93,781	731,153	0.128	-2.054	-	-	362	93,781						
10/3/2017	296	59,935	731,153	0.082	-2.501	-	-	296	59,935						
10/4/2017	920	76,539	731,153	0.105	-2.257	-	-	920	76,539						
10/5/2017	639	117,240	731,153	0.160	-1.830	-	-	639	117,240						
10/6/2017	323	65,612	731,153	0.090	-2.411	-	-	323	65,612						
10/7/2017	1,340	229,302	731,153	0.314	-1.160	-	-	1,340	229,302						
10/8/2017	2,556	539,104	731,153	0.737	-0.305	-	-	2,556	539,104						
10/9/2017	5,311	736,746	731,153	1.008	0.008	-	-	5,311	736,746						
10/10/2017	4,229	227,630	731,153	0.311	-1.167	-	-	4,229	227,630						
10/11/2017	973	145,043	731,153	0.198	-1.618	-	-	973	145,043						
10/12/2017	1,304	206,920	731,153	0.283	-1.262	-	-	1,304	206,920						
10/13/2017	544	84,643	731,153	0.116	-2.156	-	-	544	84,643						
10/14/2017	142	30,638	731,153	0.042	-3.172	-	-	142	30,638						
10/15/2017	11,328	2,482,516	731,153	3.395	1.222	-	-	11,328	2,482,516						
10/16/2017	1,996	215,039	731,153	0.294	-1.224	-	-	1,996	215,039						
10/17/2017	1,047	242,220	731,153	0.331	-1.105	-	-	1,047	242,220						
10/18/2017	1,197	103,725	731,153	0.142	-1.953	-	-	1,197	103,725						
10/19/2017	341	49,559	731,153	0.068	-2.691	-	-	341	49,559						
10/20/2017	348	44,609	731,153	0.061	-2.797	-	-	348	44,609						
10/21/2017	327	67,361	731,153	0.092	-2.385	-	-	327	67,361						
10/22/2017	408	77,538	731,153	0.106	-2.244	-	-	408	77,538						
10/23/2017	1,403	216,264	731,153	0.296	-1.218	-	-	1,403	216,264						
10/24/2017	628	193,075	731,153	0.264	-1.332	-	-	628	193,075						
10/25/2017	1,269	168,753	731,153	0.231	-1.466	-	-	1,269	168,753						
10/26/2017	208	20,249	731,153	0.028	-3.587	-	-	208	20,249						
10/27/2017	934	114,109	731,153	0.156	-1.857	-	-	934	114,109						
10/28/2017	633	67,677	731,153	0.093	-2.380	130	15,562	503	52,115						
10/29/2017	134	36,662	731,153	0.050	-2.993	-	-	134	36,662						
10/30/2017	1,963	217,312	731,153	0.297	-1.213	-	-	1,963	217,312						
10/31/2017	6,298	393,171	731,153	0.538	-0.620	-	-	6,298	393,171						
11/1/2017	553	79,358	731,153	0.109	-2.221	-	-	553	79,358						
11/2/2017	1,284	175,005	731,153	0.239	-1.430	-	-	1,284	175,005						
11/3/2017	719	122,133	731,153	0.167	-1.790	-	-	719	122,133						
11/4/2017	5,434	520,868	731,153	0.712	-0.339	-	-	5,434	520,868						
11/5/2017	37,372	33,660,179	731,153	46.037	3.829	-	-	37,372	33,660,179	1					
11/6/2017	1,254	346,736	731,153	0.474	-0.746	-	-	1,254	346,736						
11/7/2017	565	75,240	731,153	0.103	-2.274	-	-	565	75,240						
11/8/2017	2,742	230,376	731,153	0.315	-1.155	-	-	2,742	230,376						
11/9/2017	5,998	461,024	731,153	0.631	-0.461	-	-	5,998	461,024						
11/10/2017	1,678	257,641	731,153	0.352	-1.043	-	-	1,678	257,641						
11/11/2017	2,217	74,403	731,153	0.102	-2.285	-	-	2,217	74,403						
11/12/2017	85	8,185	731,153	0.011	-4.492	-	-	85	8,185						
11/13/2017	525	51,218	731,153	0.070	-2.659	-	-	525	51,218						
11/14/2017	9,455	208,782	731,153	0.286	-1.253	-	-	9,455	208,782						
11/15/2017	4,367	700,918	731,153	0.959	-0.042	-	-	4,367	700,918						
11/16/2017	1,543	216,328	731,153	0.296	-1.218	-	-	1,543	216,328						
11/17/2017	183	26,410	731,153	0.036	-3.321	-	-	183	26,410						
11/18/2017	2,904	701,730	731,153	0.960	-0.041	-	-	2,904	701,730						
11/19/2017	11,428	1,594,385	731,153	2.181	0.780	-	-	11,428	1,594,385						
11/20/2017	458	65,841	731,153	0.090	-2.407	-	-	458	65,841						
11/21/2017	2,238	179,909	731,153	0.246	-1.402	-	-	2,238	179,909						
11/22/2017	152	28,424	731,153	0.039	-3.247	-	-	152	28,424						
11/23/2017	569	47,024	731,153	0.064	-2.744	-	-	569	47,024						
11/24/2017	7,724	490,784	731,153	0.671	-0.399	-	-	7,724	490,784						
11/25/2017	958	125,525	731,153	0.172	-1.762	-	-	958	125,525						
11/26/2017	645	59,166	731,153	0.081	-2.514	-	-	645	59,166						
11/27/2017	1,311	54,123	731,153	0.074	-2.603	-	-	1,311	54,123						
11/28/2017	178	25,027	731,153	0.034	-3.375	-	-	178	25,027						
11/29/2017	95	20,135	731,153	0.028	-3.592	-	-	95	20,135						

Major Event Day Thresholds ("TMED") Calculations - CEI

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
11/30/2017	189	25,685	731,153	0.035	-3.349	-	-	189	25,685						
12/1/2017	268	29,924	731,153	0.041	-3.196	-	-	268	29,924						
12/2/2017	278	72,825	731,153	0.100	-2.307	-	-	278	72,825						
12/3/2017	5,265	308,345	731,153	0.422	-0.863	5,094	285,264	171	23,081						
12/4/2017	3,884	298,460	731,153	0.408	-0.896	-	-	3,884	298,460						
12/5/2017	14,475	1,666,684	731,153	2.280	0.824	-	-	14,475	1,666,684						
12/6/2017	10,490	372,776	731,153	0.510	-0.674	10,221	340,567	269	32,209						
12/7/2017	145	16,146	731,153	0.022	-3.813	-	-	145	16,146						
12/8/2017	251	34,085	731,153	0.047	-3.066	-	-	251	34,085						
12/9/2017	395	56,954	731,153	0.078	-2.552	-	-	395	56,954						
12/10/2017	81	13,867	731,153	0.019	-3.965	-	-	81	13,867						
12/11/2017	185	30,876	731,153	0.042	-3.165	-	-	185	30,876						
12/12/2017	2,388	199,622	731,153	0.273	-1.298	-	-	2,388	199,622						
12/13/2017	394	66,431	731,153	0.091	-2.398	-	-	394	66,431						
12/14/2017	805	116,882	731,153	0.160	-1.833	-	-	805	116,882						
12/15/2017	4,057	83,468	731,153	0.114	-2.170	3,700	37,000	357	46,468						
12/16/2017	89	16,886	731,153	0.023	-3.768	-	-	89	16,886						
12/17/2017	3,595	347,732	731,153	0.476	-0.743	-	-	3,595	347,732						
12/18/2017	359	128,287	731,153	0.175	-1.740	-	-	359	128,287						
12/19/2017	75	13,165	731,153	0.018	-4.017	-	-	75	13,165						
12/20/2017	177	16,751	731,153	0.023	-3.776	-	-	177	16,751						
12/21/2017	198	56,834	731,153	0.078	-2.554	-	-	198	56,834						
12/22/2017	169	16,485	731,153	0.023	-3.792	-	-	169	16,485						
12/23/2017	284	55,150	731,153	0.075	-2.585	-	-	284	55,150						
12/24/2017	251	21,993	731,153	0.030	-3.504	-	-	251	21,993						
12/25/2017	1,148	204,212	731,153	0.279	-1.275	-	-	1,148	204,212						
12/26/2017	179	31,847	731,153	0.044	-3.134	-	-	179	31,847						
12/27/2017	2,207	301,352	731,153	0.412	-0.886	-	-	2,207	301,352						
12/28/2017	3,758	289,076	731,153	0.395	-0.928	-	-	3,758	289,076						
12/29/2017	44	13,856	731,153	0.019	-3.966	-	-	44	13,856						
12/30/2017	90	11,312	731,153	0.015	-4.169	-	-	90	11,312						
12/31/2017	625	94,071	731,153	0.129	-2.051	-	-	625	94,071						
1/1/2018	283	48,436	731,388	0.066	-2.715	-	-	283	48,436						
1/2/2018	109	4,535	731,388	0.006	-5.083	-	-	109	4,535						
1/3/2018	181	21,431	731,388	0.029	-3.530	-	-	181	21,431						
1/4/2018	25,118	2,603,846	731,388	3.560	1.270	-	-	25,118	2,603,846						
1/5/2018	4,610	468,259	731,388	0.640	-0.446	-	-	4,610	468,259						
1/6/2018	922	227,521	731,388	0.311	-1.168	-	-	922	227,521						
1/7/2018	211	28,572	731,388	0.039	-3.243	-	-	211	28,572						
1/8/2018	3,516	509,508	731,388	0.697	-0.361	-	-	3,516	509,508						
1/9/2018	94	14,952	731,388	0.020	-3.890	-	-	94	14,952						
1/10/2018	289	36,670	731,388	0.050	-2.993	-	-	289	36,670						
1/11/2018	1,869	317,205	731,388	0.434	-0.835	-	-	1,869	317,205						
1/12/2018	2,686	279,314	731,388	0.382	-0.963	-	-	2,686	279,314						
1/13/2018	2,253	312,997	731,388	0.428	-0.849	-	-	2,253	312,997						
1/14/2018	245	23,932	731,388	0.033	-3.420	-	-	245	23,932						
1/15/2018	257	28,458	731,388	0.039	-3.247	-	-	257	28,458						
1/16/2018	2,440	162,748	731,388	0.223	-1.503	-	-	2,440	162,748						
1/17/2018	125	7,870	731,388	0.011	-4.532	-	-	125	7,870						
1/18/2018	625	50,004	731,388	0.068	-2.683	-	-	625	50,004						
1/19/2018	777	102,877	731,388	0.141	-1.961	-	-	777	102,877						
1/20/2018	803	148,542	731,388	0.203	-1.594	-	-	803	148,542						
1/21/2018	531	40,926	731,388	0.056	-2.883	-	-	531	40,926						
1/22/2018	2,477	386,163	731,388	0.528	-0.639	-	-	2,477	386,163						
1/23/2018	7,621	1,020,239	731,388	1.395	0.333	5,383	744,595	2,238	275,644						
1/24/2018	286	31,817	731,388	0.044	-3.135	-	-	286	31,817						
1/25/2018	366	23,206	731,388	0.032	-3.451	-	-	366	23,206						
1/26/2018	524	40,975	731,388	0.056	-2.882	-	-	524	40,975						
1/27/2018	308	53,917	731,388	0.074	-2.607	-	-	308	53,917						
1/28/2018	88	11,977	731,388	0.016	-4.112	-	-	88	11,977						
1/29/2018	198	41,415	731,388	0.057	-2.871	-	-	198	41,415						
1/30/2018	801	81,562	731,388	0.112	-2.194	-	-	801	81,562						
1/31/2018	3,860	261,754	731,388	0.358	-1.028	-	-	3,860	261,754						
2/1/2018	271	46,045	731,388	0.063	-2.765	-	-	271	46,045						
2/2/2018	98	25,461	731,388	0.035	-3.358	-	-	98	25,461						
2/3/2018	1,074	109,818	731,388	0.150	-1.896	-	-	1,074	109,818						
2/4/2018	1,181	212,465	731,388	0.290	-1.236	-	-	1,181	212,465						
2/5/2018	318	63,171	731,388	0.086	-2.449	-	-	318	63,171						
2/6/2018	11	3,062	731,388	0.004	-5.476	-	-	11	3,062						
2/7/2018	114	17,768	731,388	0.024	-3.718	-	-	114	17,768						
2/8/2018	24	2,977	731,388	0.004	-5.504	-	-	24	2,977						
2/9/2018	384	22,889	731,388	0.031	-3.464	-	-	384	22,889						
2/10/2018	746	111,787	731,388	0.153	-1.878	-	-	746	111,787						
2/11/2018	2,786	352,663	731,388	0.482	-0.729	-	-	2,786	352,663						
2/12/2018	191	21,171	731,388	0.029	-3.542	-	-	191	21,171						
2/13/2018	125	13,831	731,388	0.019	-3.968	-	-	125	13,831						
2/14/2018	186	25,002	731,388	0.034	-3.376	-	-	186	25,002						
2/15/2018	5,054	302,945	731,388	0.414	-0.881	3	159	5,051	302,786						
2/16/2018	4,268	306,951	731,388	0.420	-0.868	-	-	4,268	306,951						
2/17/2018	359	24,416	731,388	0.033	-3.400	-	-	359	24,416						
2/18/2018	107	22,468	731,388	0.031	-3.483	-	-	107	22,468						
2/19/2018	644	69,598	731,388	0.095	-2.352	-	-	644	69,598						
2/20/2018	1,448	189,295	731,388	0.259	-1.352	-	-	1,448	189,295						
2/21/2018	293	140,653	731,388	0.192	-1.649	-	-	293	140,653						
2/22/2018	119	22,111	731,388	0.030	-3.499	-	-	119	22,111						
2/23/2018	996	87,785	731,388	0.120	-2.120	-	-	996	87,785						
2/24/2018	343	53,173	731,388	0.073	-2.621	-	-	343	53,173						
2/25/2018	3,673	565,397	731,388	0.773	-0.257	-	-	3,673	565,397						
2/26/2018	67	11,750	731,388	0.016	-4.131	-	-	67	11,750						
2/27/2018	1,027	111,523	731,388	0.152	-1.881	-	-	1,027	111,523						
2/28/2018	384	63,349	731,388	0.087	-2.446	-	-	384	63,349						
3/1/2018	79,814	75,794,468	731,388	103.631	4.641	-	-	79,814	75,794,468	1					
3/2/2018	9,177	7,173,866	731,388	9.809	2.283	-	-	9,177	7,173,866	1					
3/3/2018	1,386	272,943	731,388	0.373	-0.986	-	-	1,386	272,943						
3/4/2018	563	116,553	731,388	0.159	-1.837	-	-	563	116,553						
3/5/2018	208	26,215	731,388	0.036	-3.329	-	-	208	26,215						
3/6/2018	1,597	82,382	731,388	0.113	-2.184	-	-	1,597	82,382						
3/7/2018	2,924	93,509	731,388	0.128	-2.057	-	-	2,924	93,509						
3/8/2018	448	61,464	731,388	0.084	-2.476	-	-	448	61,464						
3/9/2018	820	136,661	731,388	0.187	-1.677	-	-	820	136,661						
3/10/2018	2,138	397,348	731,388	0.543	-0.610	-	-	2,138	397,348						
3/11/2018	1,011	43,108	731,388	0.059	-2.831	-	-	1,011	43,108						
3/12/2018	1,190	51,721	731,388	0.071	-2.649	-	-	1,190	51,721						
3/13/2018	330	55,589	731,388	0.076	-2.577	-	-	330	55,589						
3/14/2018	404	71,040	731,388	0.097	-2.332	-	-	404	71,040						
3/15/2018	109	4,863	731,388	0.007	-5.013	-	-	109	4,863						
3/16/2018	131	31,348	731,388	0.043	-3.150	-	-	131	31,348						
3/17/2018	372	30,856	731,388	0.042	-3.166	-	-	372	30,856						

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
3/18/2018	3,136	216,236	731,388	0.296	-1.219	-	-	3,136	216,236						
3/19/2018	1,229	138,850	731,388	0.190	-1.662	-	-	1,229	138,850						
3/20/2018	888	180,239	731,388	0.246	-1.401	-	-	888	180,239						
3/21/2018	147	22,116	731,388	0.030	-3.499	-	-	147	22,116						
3/22/2018	244	68,119	731,388	0.093	-2.374	-	-	244	68,119						
3/23/2018	149	18,486	731,388	0.025	-3.678	-	-	149	18,486						
3/24/2018	367	42,287	731,388	0.058	-2.850	-	-	367	42,287						
3/25/2018	700	59,741	731,388	0.082	-2.505	-	-	700	59,741						
3/26/2018	2,366	303,682	731,388	0.415	-0.879	-	-	2,366	303,682						
3/27/2018	1,460	267,421	731,388	0.366	-1.006	-	-	1,460	267,421						
3/28/2018	284	49,778	731,388	0.068	-2.687	-	-	284	49,778						
3/29/2018	228	28,927	731,388	0.040	-3.230	-	-	228	28,927						
3/30/2018	3,163	246,404	731,388	0.337	-1.088	-	-	3,163	246,404						
3/31/2018	698	105,344	731,388	0.144	-1.938	-	-	698	105,344						
4/1/2018	151	30,312	731,388	0.041	-3.183	-	-	151	30,312						
4/2/2018	1,189	142,243	731,388	0.194	-1.637	-	-	1,189	142,243						
4/3/2018	1,742	243,322	731,388	0.333	-1.101	-	-	1,742	243,322						
4/4/2018	36,085	5,518,902	731,388	7.546	2.021	-	-	36,085	5,518,902	1					
4/5/2018	306	37,289	731,388	0.051	-2.976	-	-	306	37,289						
4/6/2018	1,410	108,687	731,388	0.149	-1.906	-	-	1,410	108,687						
4/7/2018	97	27,005	731,388	0.037	-3.299	-	-	97	27,005						
4/8/2018	87	13,855	731,388	0.019	-3.966	-	-	87	13,855						
4/9/2018	214	17,414	731,388	0.024	-3.738	-	-	214	17,414						
4/10/2018	84	12,497	731,388	0.017	-4.069	-	-	84	12,497						
4/11/2018	571	90,079	731,388	0.123	-2.094	-	-	571	90,079						
4/12/2018	1,115	146,848	731,388	0.201	-1.606	-	-	1,115	146,848						
4/13/2018	794	89,474	731,388	0.122	-2.101	-	-	794	89,474						
4/14/2018	1,559	320,064	731,388	0.438	-0.826	-	-	1,559	320,064						
4/15/2018	1,419	186,873	731,388	0.256	-1.365	-	-	1,419	186,873						
4/16/2018	4,200	256,721	731,388	0.351	-1.047	-	-	4,200	256,721						
4/17/2018	437	45,038	731,388	0.062	-2.787	-	-	437	45,038						
4/18/2018	2,320	160,641	731,388	0.220	-1.516	-	-	2,320	160,641						
4/19/2018	492	83,535	731,388	0.114	-2.170	-	-	492	83,535						
4/20/2018	54	7,442	731,388	0.010	-4.588	-	-	54	7,442						
4/21/2018	1,039	104,312	731,388	0.143	-1.948	-	-	1,039	104,312						
4/22/2018	183	20,382	731,388	0.028	-3.580	-	-	183	20,382						
4/23/2018	1,327	134,331	731,388	0.184	-1.695	-	-	1,327	134,331						
4/24/2018	731	99,903	731,388	0.137	-1.991	-	-	731	99,903						
4/25/2018	1,480	66,552	731,388	0.091	-2.397	-	-	1,480	66,552						
4/26/2018	1,014	66,462	731,388	0.091	-2.398	-	-	1,014	66,462						
4/27/2018	797	169,353	731,388	0.232	-1.463	-	-	797	169,353						
4/28/2018	568	56,630	731,388	0.077	-2.558	-	-	568	56,630						
4/29/2018	31	5,265	731,388	0.007	-4.934	-	-	31	5,265						
4/30/2018	157	32,101	731,388	0.044	-3.126	-	-	157	32,101						
5/1/2018	1,156	164,681	731,388	0.225	-1.491	-	-	1,156	164,681						
5/2/2018	1,306	195,150	731,388	0.267	-1.321	-	-	1,306	195,150						
5/3/2018	4,317	166,435	731,388	0.228	-1.480	-	-	4,317	166,435						
5/4/2018	8,125	1,199,402	731,388	1.640	0.495	-	-	8,125	1,199,402						
5/5/2018	2,051	242,954	731,388	0.332	-1.102	-	-	2,051	242,954						
5/6/2018	237	39,828	731,388	0.054	-2.910	-	-	237	39,828						
5/7/2018	871	95,497	731,388	0.131	-2.036	-	-	871	95,497						
5/8/2018	701	103,458	731,388	0.141	-1.956	-	-	701	103,458						
5/9/2018	138	19,445	731,388	0.027	-3.627	-	-	138	19,445						
5/10/2018	9,226	1,069,963	731,388	1.463	0.380	-	-	9,226	1,069,963						
5/11/2018	71	21,539	731,388	0.029	-3.525	-	-	71	21,539						
5/12/2018	996	155,031	731,388	0.212	-1.551	-	-	996	155,031						
5/13/2018	627	106,863	731,388	0.146	-1.923	-	-	627	106,863						
5/14/2018	132	25,373	731,388	0.035	-3.361	-	-	132	25,373						
5/15/2018	651	83,608	731,388	0.114	-2.169	-	-	651	83,608						
5/16/2018	427	58,594	731,388	0.080	-2.524	-	-	427	58,594						
5/17/2018	250	48,899	731,388	0.067	-2.705	-	-	250	48,899						
5/18/2018	198	74,088	731,388	0.101	-2.290	-	-	198	74,088						
5/19/2018	2,487	405,235	731,388	0.554	-0.590	-	-	2,487	405,235						
5/20/2018	167	40,681	731,388	0.056	-2.889	-	-	167	40,681						
5/21/2018	5,943	232,153	731,388	0.317	-1.148	-	-	5,943	232,153						
5/22/2018	2,888	460,115	731,388	0.629	-0.463	-	-	2,888	460,115						
5/23/2018	6,415	128,114	731,388	0.175	-1.742	-	-	6,415	128,114						
5/24/2018	2,490	164,029	731,388	0.224	-1.495	-	-	2,490	164,029						
5/25/2018	13,267	1,011,559	731,388	1.383	0.324	10,179	500,638	3,088	510,921						
5/26/2018	1,183	136,408	731,388	0.187	-1.679	-	-	1,183	136,408						
5/27/2018	2,670	227,580	731,388	0.311	-1.167	-	-	2,670	227,580						
5/28/2018	7,532	1,207,373	731,388	1.651	0.501	-	-	7,532	1,207,373						
5/29/2018	2,116	443,397	731,388	0.606	-0.500	-	-	2,116	443,397						
5/30/2018	9,087	661,870	731,388	0.905	-0.100	-	-	9,087	661,870						
5/31/2018	6,651	485,973	731,388	0.664	-0.409	-	-	6,651	485,973						
6/1/2018	1,019	158,909	731,388	0.217	-1.527	-	-	1,019	158,909						
6/2/2018	2,231	205,357	731,388	0.281	-1.270	-	-	2,231	205,357						
6/3/2018	5,318	878,088	731,388	1.201	0.183	-	-	5,318	878,088						
6/4/2018	2,187	311,974	731,388	0.427	-0.852	-	-	2,187	311,974						
6/5/2018	439	92,788	731,388	0.127	-2.065	-	-	439	92,788						
6/6/2018	1,399	160,568	731,388	0.220	-1.516	-	-	1,399	160,568						
6/7/2018	5,129	427,801	731,388	0.585	-0.536	-	-	5,129	427,801						
6/8/2018	179	19,387	731,388	0.027	-3.630	-	-	179	19,387						
6/9/2018	651	85,663	731,388	0.117	-2.145	-	-	651	85,663						
6/10/2018	3,392	309,136	731,388	0.423	-0.861	-	-	3,392	309,136						
6/11/2018	538	103,953	731,388	0.142	-1.951	-	-	538	103,953						
6/12/2018	593	109,833	731,388	0.150	-1.896	-	-	593	109,833						
6/13/2018	918	140,678	731,388	0.192	-1.648	-	-	918	140,678						
6/14/2018	1,216	116,462	731,388	0.159	-1.837	-	-	1,216	116,462						
6/15/2018	1,172	180,688	731,388	0.247	-1.398	-	-	1,172	180,688						
6/16/2018	944	104,611	731,388	0.143	-1.945	-	-	944	104,611						
6/17/2018	2,498	507,862	731,388	0.694	-0.365	-	-	2,498	507,862						
6/18/2018	3,035	493,611	731,388	0.675	-0.393	-	-	3,035	493,611						
6/19/2018	5,380	897,533	731,388	1.227	0.205	-	-	5,380	897,533						
6/20/2018	3,036	181,000	731,388	0.247	-1.396	-	-	3,036	181,000						
6/21/2018	426	79,532	731,388	0.109	-2.219	-	-	426	79,532						
6/22/2018	4,495	581,442	731,388	0.795	-0.229	-	-	4,495	581,442						
6/23/2018	1,511	210,518	731,388	0.288	-1.245	-	-	1,511	210,518						
6/24/2018	774	84,205	731,388	0.115	-2.162	-	-	774	84,205						
6/25/2018	355	72,307	731,388	0.099	-2.314	-	-	355	72,307						
6/26/2018	889	135,852	731,388	0.186	-1.683	-	-	889	135,852						
6/27/2018	3,009	321,190	731,388	0.439	-0.823	-	-	3,009	321,190						
6/28/2018	771	114,335	731,388	0.156	-1.856	-	-	771	114,335						
6/29/2018	4,363	968,080	731,388	1.324	0.280	-	-	4,363	968,080						
6/30/2018	1,818	371,117	731,388	0.507	-0.678	-	-	1,818	371,117						
7/1/2018	3,084	508,298	731,388	0.695	-0.364	-	-	3,084	508,298						
7/2/2018	20,029	1,138,066	731,388	1.556	0.442	-	-	20,029	1,138,066						
7/3/2018	13,597	1,728,177	731,388	2.363	0.860	-	-	13,597	1,728,177						

Major Event Day Thresholds ("TMED") Calculations - CEI

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
7/4/2018	3,190	485,455	731,388	0.664	-0.410	-	-	3,190	485,455						
7/5/2018	13,599	2,992,742	731,388	4.092	1.409	-	-	13,599	2,992,742						
7/6/2018	6,420	1,676,926	731,388	2.293	0.830	-	-	6,420	1,676,926						
7/7/2018	1,217	207,319	731,388	0.283	-1.261	-	-	1,217	207,319						
7/8/2018	243	63,949	731,388	0.087	-2.437	-	-	243	63,949						
7/9/2018	715	98,836	731,388	0.135	-2.001	-	-	715	98,836						
7/10/2018	1,731	142,167	731,388	0.194	-1.638	-	-	1,731	142,167						
7/11/2018	510	83,843	731,388	0.115	-2.166	-	-	510	83,843						
7/12/2018	1,531	199,802	731,388	0.273	-1.298	-	-	1,531	199,802						
7/13/2018	2,115	224,772	731,388	0.307	-1.180	-	-	2,115	224,772						
7/14/2018	549	122,957	731,388	0.168	-1.783	-	-	549	122,957						
7/15/2018	1,333	295,580	731,388	0.404	-0.906	-	-	1,333	295,580						
7/16/2018	1,268	254,683	731,388	0.348	-1.055	-	-	1,268	254,683						
7/17/2018	1,685	231,095	731,388	0.316	-1.152	-	-	1,685	231,095						
7/18/2018	920	52,789	731,388	0.072	-2.629	-	-	920	52,789						
7/19/2018	4,217	593,299	731,388	0.811	-0.209	-	-	4,217	593,299						
7/20/2018	1,548	106,617	731,388	0.146	-1.926	-	-	1,548	106,617						
7/21/2018	1,508	230,241	731,388	0.315	-1.156	-	-	1,508	230,241						
7/22/2018	173	16,313	731,388	0.022	-3.803	-	-	173	16,313						
7/23/2018	3,897	925,249	731,388	1.265	0.235	-	-	3,897	925,249						
7/24/2018	522	81,930	731,388	0.112	-2.189	-	-	522	81,930						
7/25/2018	2,440	153,084	731,388	0.209	-1.564	-	-	2,440	153,084						
7/26/2018	18,121	3,233,615	731,388	4.421	1.486	-	-	18,121	3,233,615						
7/27/2018	1,666	479,454	731,388	0.656	-0.422	-	-	1,666	479,454						
7/28/2018	191	69,252	731,388	0.095	-2.357	-	-	191	69,252						
7/29/2018	498	89,682	731,388	0.123	-2.099	-	-	498	89,682						
7/30/2018	1,053	180,123	731,388	0.246	-1.401	-	-	1,053	180,123						
7/31/2018	1,975	242,961	731,388	0.332	-1.102	-	-	1,975	242,961						
8/1/2018	315	39,789	731,388	0.054	-2.911	-	-	315	39,789						
8/2/2018	437	78,123	731,388	0.107	-2.237	-	-	437	78,123						
8/3/2018	1,018	59,779	731,388	0.082	-2.504	-	-	1,018	59,779						
8/4/2018	4,306	426,955	731,388	0.584	-0.538	-	-	4,306	426,955						
8/5/2018	2,211	387,050	731,388	0.529	-0.636	-	-	2,211	387,050						
8/6/2018	9,538	2,450,199	731,388	3.350	1.209	-	-	9,538	2,450,199						
8/7/2018	10,410	1,736,813	731,388	2.375	0.865	-	-	10,410	1,736,813						
8/8/2018	1,618	299,385	731,388	0.409	-0.893	-	-	1,618	299,385						
8/9/2018	970	115,136	731,388	0.157	-1.849	-	-	970	115,136						
8/10/2018	475	181,079	731,388	0.248	-1.396	-	-	475	181,079						
8/11/2018	1,687	275,791	731,388	0.377	-0.975	-	-	1,687	275,791						
8/12/2018	1,415	149,509	731,388	0.204	-1.588	-	-	1,415	149,509						
8/13/2018	897	246,325	731,388	0.337	-1.088	-	-	897	246,325						
8/14/2018	680	102,754	731,388	0.140	-1.963	-	-	680	102,754						
8/15/2018	2,411	400,282	731,388	0.547	-0.603	-	-	2,411	400,282						
8/16/2018	815	102,254	731,388	0.140	-1.967	-	-	815	102,254						
8/17/2018	5,198	569,027	731,388	0.778	-0.251	-	-	5,198	569,027						
8/18/2018	697	163,334	731,388	0.223	-1.499	-	-	697	163,334						
8/19/2018	219	70,237	731,388	0.096	-2.343	-	-	219	70,237						
8/20/2018	372	90,317	731,388	0.123	-2.092	-	-	372	90,317						
8/21/2018	6,113	861,735	731,388	1.178	0.164	-	-	6,113	861,735						
8/22/2018	920	94,981	731,388	0.130	-2.041	-	-	920	94,981						
8/23/2018	511	86,471	731,388	0.118	-2.135	-	-	511	86,471						
8/24/2018	2,093	232,899	731,388	0.318	-1.144	-	-	2,093	232,899						
8/25/2018	1,983	281,772	731,388	0.385	-0.954	-	-	1,983	281,772						
8/26/2018	869	155,045	731,388	0.212	-1.551	-	-	869	155,045						
8/27/2018	1,111	214,381	731,388	0.293	-1.227	-	-	1,111	214,381						
8/28/2018	1,021	185,209	731,388	0.253	-1.373	-	-	1,021	185,209						
8/29/2018	7,596	1,166,889	731,388	1.595	0.467	-	-	7,596	1,166,889						
8/30/2018	572	96,538	731,388	0.132	-2.025	-	-	572	96,538						
8/31/2018	1,373	122,034	731,388	0.167	-1.791	-	-	1,373	122,034						
9/1/2018	451	103,198	731,388	0.141	-1.958	-	-	451	103,198						
9/2/2018	1,758	268,008	731,388	0.366	-1.004	-	-	1,758	268,008						
9/3/2018	2,837	285,767	731,388	0.391	-0.940	-	-	2,837	285,767						
9/4/2018	814	192,335	731,388	0.263	-1.336	-	-	814	192,335						
9/5/2018	20,446	4,686,423	731,388	6.408	1.857	-	-	20,446	4,686,423	1					
9/6/2018	2,722	344,377	731,388	0.471	-0.753	-	-	2,722	344,377						
9/7/2018	602	105,765	731,388	0.145	-1.934	-	-	602	105,765						
9/8/2018	801	193,826	731,388	0.265	-1.328	-	-	801	193,826						
9/9/2018	29,586	2,477,012	731,388	3.387	1.220	-	-	29,586	2,477,012						
9/10/2018	1,644	275,534	731,388	0.377	-0.976	-	-	1,644	275,534						
9/11/2018	1,813	237,295	731,388	0.324	-1.126	-	-	1,813	237,295						
9/12/2018	1,149	152,813	731,388	0.209	-1.566	-	-	1,149	152,813						
9/13/2018	693	42,380	731,388	0.058	-2.848	-	-	693	42,380						
9/14/2018	473	113,366	731,388	0.155	-1.864	-	-	473	113,366						
9/15/2018	218	56,478	731,388	0.077	-2.561	-	-	218	56,478						
9/16/2018	1,277	149,135	731,388	0.204	-1.590	-	-	1,277	149,135						
9/17/2018	1,122	606,527	731,388	0.829	-0.187	-	-	1,122	606,527						
9/18/2018	2,007	242,187	731,388	0.331	-1.105	-	-	2,007	242,187						
9/19/2018	438	38,441	731,388	0.053	-2.946	-	-	438	38,441						
9/20/2018	2,142	586,206	731,388	0.801	-0.221	-	-	2,142	586,206						
9/21/2018	12,487	1,474,362	731,388	2.016	0.701	-	-	12,487	1,474,362						
9/22/2018	1,347	228,145	731,388	0.312	-1.165	-	-	1,347	228,145						
9/23/2018	221	26,788	731,388	0.037	-3.307	-	-	221	26,788						
9/24/2018	1,813	262,845	731,388	0.359	-1.023	-	-	1,813	262,845						
9/25/2018	9,532	1,013,255	731,388	1.385	0.326	-	-	9,532	1,013,255						
9/26/2018	3,791	551,417	731,388	0.754	-0.282	-	-	3,791	551,417						
9/27/2018	232	44,371	731,388	0.061	-2.802	-	-	232	44,371						
9/28/2018	687	65,710	731,388	0.090	-2.410	-	-	687	65,710						
9/29/2018	197	56,031	731,388	0.077	-2.569	-	-	197	56,031						
9/30/2018	238	32,280	731,388	0.044	-3.120	-	-	238	32,280						
10/1/2018	559	102,333	731,388	0.140	-1.967	-	-	559	102,333						
10/2/2018	416	72,026	731,388	0.098	-2.318	-	-	416	72,026						
10/3/2018	154	40,757	731,388	0.056	-2.887	-	-	154	40,757						
10/4/2018	1,446	229,912	731,388	0.314	-1.157	-	-	1,446	229,912						
10/5/2018	377	35,370	731,388	0.048	-3.029	-	-	377	35,370						
10/6/2018	4,560	405,736	731,388	0.555	-0.589	-	-	4,560	405,736						
10/7/2018	1,663	271,583	731,388	0.371	-0.991	-	-	1,663	271,583						
10/8/2018	262	50,908	731,388	0.070	-2.665	-	-	262	50,908						
10/9/2018	3,211	266,528	731,388	0.364	-1.009	-	-	3,211	266,528						
10/10/2018	5,559	334,302	731,388	0.457	-0.783	-	-	5,559	334,302						
10/11/2018	911	226,855	731,388	0.310	-1.171	-	-	911	226,855						
10/12/2018	3,118	304,944	731,388	0.417	-0.875	-	-	3,118	304,944						
10/13/2018	2,519	493,802	731,388	0.675	-0.393	-	-	2,519	493,802						
10/14/2018	357	45,011	731,388	0.062	-2.788	-	-	357	45,011						
10/15/2018	1,893	140,339	731,388	0.192	-1.651	-	-	1,893	140,339						
10/16/2018	2,125	376,987	731,388	0.515	-0.663	-	-	2,125	376,987						
10/17/2018	539	341,453	731,388	0.467	-0.762	-	-	539	341,453						
10/18/2018	120	19,288	731,388	0.026	-3.635	-	-	120	19,288						
10/19/2018	682	83,477	731,388	0.114	-2.170	-	-	682	83,477						

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
10/20/2018	61,306	30,977,545	731,388	42.354	3.746	-	-	61,306	30,977,545	1					
10/21/2018	6,186	944,371	731,388	1.291	0.256	-	-	6,186	944,371						
10/22/2018	1,613	170,462	731,388	0.233	-1.456	-	-	1,613	170,462						
10/23/2018	702	133,052	731,388	0.182	-1.704	-	-	702	133,052						
10/24/2018	805	319,221	731,388	0.436	-0.829	-	-	805	319,221						
10/25/2018	103	18,209	731,388	0.025	-3.693	-	-	103	18,209						
10/26/2018	354	37,953	731,388	0.052	-2.959	-	-	354	37,953						
10/27/2018	3,660	593,985	731,388	0.812	-0.208	-	-	3,660	593,985						
10/28/2018	2,458	300,375	731,388	0.411	-0.890	-	-	2,458	300,375						
10/29/2018	2,400	347,505	731,388	0.475	-0.744	-	-	2,400	347,505						
10/30/2018	294	79,588	731,388	0.109	-2.218	-	-	294	79,588						
10/31/2018	1,548	240,742	731,388	0.329	-1.111	-	-	1,548	240,742						
11/1/2018	1,757	133,410	731,388	0.182	-1.702	-	-	1,757	133,410						
11/2/2018	4,137	405,089	731,388	0.554	-0.591	-	-	4,137	405,089						
11/3/2018	405	74,428	731,388	0.102	-2.285	-	-	405	74,428						
11/4/2018	1,583	240,316	731,388	0.329	-1.113	-	-	1,583	240,316						
11/5/2018	4,991	180,559	731,388	0.247	-1.399	-	-	4,991	180,559						
11/6/2018	14,934	2,470,240	731,388	3.377	1.217	-	-	14,934	2,470,240						
11/7/2018	434	56,604	731,388	0.077	-2.559	-	-	434	56,604						
11/8/2018	294	51,442	731,388	0.070	-2.654	-	-	294	51,442						
11/9/2018	458	74,375	731,388	0.102	-2.286	-	-	458	74,375						
11/10/2018	1,626	299,441	731,388	0.409	-0.893	-	-	1,626	299,441						
11/11/2018	1,119	62,434	731,388	0.085	-2.461	-	-	1,119	62,434						
11/12/2018	270	39,364	731,388	0.054	-2.922	-	-	270	39,364						
11/13/2018	1,204	152,561	731,388	0.209	-1.567	-	-	1,204	152,561						
11/14/2018	2,388	207,406	731,388	0.284	-1.260	-	-	2,388	207,406						
11/15/2018	2,294	324,156	731,388	0.443	-0.814	-	-	2,294	324,156						
11/16/2018	830	137,637	731,388	0.188	-1.670	-	-	830	137,637						
11/17/2018	101	20,623	731,388	0.028	-3.569	-	-	101	20,623						
11/18/2018	2,068	153,856	731,388	0.210	-1.559	-	-	2,068	153,856						
11/19/2018	160	16,358	731,388	0.022	-3.800	-	-	160	16,358						
11/20/2018	139	21,610	731,388	0.030	-3.522	-	-	139	21,610						
11/21/2018	655	116,306	731,388	0.159	-1.839	-	-	655	116,306						
11/22/2018	820	74,563	731,388	0.102	-2.283	-	-	820	74,563						
11/23/2018	4,617	291,747	731,388	0.399	-0.919	-	-	4,617	291,747						
11/24/2018	781	870,947	731,388	1.191	0.175	-	-	781	870,947						
11/25/2018	582	72,604	731,388	0.099	-2.310	-	-	582	72,604						
11/26/2018	3,546	635,297	731,388	0.869	-0.141	-	-	3,546	635,297						
11/27/2018	979	112,982	731,388	0.154	-1.868	-	-	979	112,982						
11/28/2018	62	16,062	731,388	0.022	-3.818	-	-	62	16,062						
11/29/2018	106	12,214	731,388	0.017	-4.092	-	-	106	12,214						
11/30/2018	348	53,442	731,388	0.073	-2.616	-	-	348	53,442						
12/1/2018	860	96,148	731,388	0.131	-2.029	-	-	860	96,148						
12/2/2018	4,350	986,337	731,388	1.349	0.299	-	-	4,350	986,337						
12/3/2018	774	121,898	731,388	0.167	-1.792	-	-	774	121,898						
12/4/2018	154	18,344	731,388	0.025	-3.686	-	-	154	18,344						
12/5/2018	170	21,334	731,388	0.029	-3.535	-	-	170	21,334						
12/6/2018	177	25,126	731,388	0.034	-3.371	-	-	177	25,126						
12/7/2018	38	9,332	731,388	0.013	-4.361	-	-	38	9,332						
12/8/2018	551	68,689	731,388	0.094	-2.365	-	-	551	68,689						
12/9/2018	65	9,851	731,388	0.013	-4.307	-	-	65	9,851						
12/10/2018	214	27,344	731,388	0.037	-3.286	-	-	214	27,344						
12/11/2018	205	41,254	731,388	0.056	-2.875	-	-	205	41,254						
12/12/2018	271	47,619	731,388	0.065	-2.732	-	-	271	47,619						
12/13/2018	88	12,129	731,388	0.017	-4.099	-	-	88	12,129						
12/14/2018	336	33,327	731,388	0.046	-3.089	-	-	336	33,327						
12/15/2018	212	17,188	731,388	0.024	-3.751	-	-	212	17,188						
12/16/2018	5,174	165,410	731,388	0.226	-1.487	-	-	5,174	165,410						
12/17/2018	407	67,142	731,388	0.092	-2.388	-	-	407	67,142						
12/18/2018	3,126	95,385	731,388	0.130	-2.037	-	-	3,126	95,385						
12/19/2018	356	38,161	731,388	0.052	-2.953	-	-	356	38,161						
12/20/2018	1,246	152,172	731,388	0.208	-1.570	-	-	1,246	152,172						
12/21/2018	2,727	253,424	731,388	0.346	-1.060	-	-	2,727	253,424						
12/22/2018	799	78,973	731,388	0.108	-2.226	-	-	799	78,973						
12/23/2018	527	50,643	731,388	0.069	-2.670	-	-	527	50,643						
12/24/2018	106	14,314	731,388	0.020	-3.934	-	-	106	14,314						
12/25/2018	322	47,418	731,388	0.065	-2.736	-	-	322	47,418						
12/26/2018	1,772	109,439	731,388	0.150	-1.900	-	-	1,772	109,439						
12/27/2018	3,659	711,750	731,388	0.973	-0.027	-	-	3,659	711,750						
12/28/2018	3,908	433,745	731,388	0.593	-0.522	-	-	3,908	433,745						
12/29/2018	42	7,116	731,388	0.010	-4.633	-	-	42	7,116						
12/30/2018	499	55,789	731,388	0.076	-2.573	-	-	499	55,789						
12/31/2018	7,259	1,352,193	731,388	1.849	0.615	-	-	7,259	1,352,193						
1/1/2019	13,757	3,986,274	731,209	5.452	1.696	-	-	13,757	3,986,274						
1/2/2019	177	54,084	731,209	0.074	-2.604	-	-	177	54,084						
1/3/2019	1,821	196,990	731,209	0.269	-1.312	-	-	1,821	196,990						
1/4/2019	146	20,896	731,209	0.029	-3.555	-	-	146	20,896						
1/5/2019	925	63,032	731,209	0.086	-2.451	-	-	925	63,032						
1/6/2019	48	5,528	731,209	0.008	-4.885	-	-	48	5,528						
1/7/2019	249	51,875	731,209	0.071	-2.646	-	-	249	51,875						
1/8/2019	2,585	518,110	731,209	0.709	-0.345	-	-	2,585	518,110						
1/9/2019	755	44,167	731,209	0.060	-2.807	-	-	755	44,167						
1/10/2019	228	47,578	731,209	0.065	-2.732	-	-	228	47,578						
1/11/2019	73	10,990	731,209	0.015	-4.198	-	-	73	10,990						
1/12/2019	171	26,791	731,209	0.037	-3.307	-	-	171	26,791						
1/13/2019	673	98,550	731,209	0.135	-2.004	-	-	673	98,550						
1/14/2019	137	19,077	731,209	0.026	-3.646	-	-	137	19,077						
1/15/2019	91	23,484	731,209	0.032	-3.438	-	-	91	23,484						
1/16/2019	392	57,453	731,209	0.079	-2.544	-	-	392	57,453						
1/17/2019	453	75,720	731,209	0.104	-2.268	-	-	453	75,720						
1/18/2019	274	28,513	731,209	0.039	-3.244	-	-	274	28,513						
1/19/2019	1,246	147,982	731,209	0.202	-1.598	-	-	1,246	147,982						
1/20/2019	898	70,181	731,209	0.096	-2.344	-	-	898	70,181						
1/21/2019	64	9,024	731,209	0.012	-4.395	-	-	64	9,024						
1/22/2019	240	75,228	731,209	0.103	-2.274	-	-	240	75,228						
1/23/2019	2,941	341,439	731,209	0.467	-0.762	-	-	2,941	341,439						
1/24/2019	405	105,415	731,209	0.144	-1.937	-	-	405	105,415						
1/25/2019	461	34,972	731,209	0.048	-3.040	-	-	461	34,972						
1/26/2019	114	18,212	731,209	0.025	-3.693	-	-	114	18,212						
1/27/2019	433	116,905	731,209	0.160	-1.833	-	-	433	116,905						
1/28/2019	961	211,478	731,209	0.289	-1.241	-	-	961	211,478						
1/29/2019	1,071	117,342	731,209	0.160	-1.830	-	-	1,071	117,342						
1/30/2019	2,856	346,327	731,209	0.474	-0.747	-	-	2,856	346,327						
1/31/2019	1,050	84,585	731,209	0.116	-2.157	-	-	1,050	84,585						
2/1/2019	3,890	265,150	731,209	0.363	-1.014	-	-	3,890	265,150						
2/2/2019	118	12,501	731,209	0.017	-4.069	-	-	118	12,501						
2/3/2019	112	20,138	731,209	0.028	-3.592	-	-	112	20,138						
2/4/2019	2,122	70,052	731,209	0.096	-2.345	-	-	2,122	70,052						

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
2/5/2019	128	21,258	731,209	0.029	-3.538	-	-	128	21,258						
2/6/2019	7,394	331,420	731,209	0.453	-0.791	-	-	7,394	331,420						
2/7/2019	4,455	364,965	731,209	0.499	-0.695	-	-	4,455	364,965						
2/8/2019	5,825	242,314	731,209	0.331	-1.104	-	-	5,825	242,314						
2/9/2019	43	14,241	731,209	0.019	-3.939	-	-	43	14,241						
2/10/2019	7,313	490,601	731,209	0.671	-0.399	-	-	7,313	490,601						
2/11/2019	236	41,728	731,209	0.057	-2.864	-	-	236	41,728						
2/12/2019	6,937	720,545	731,209	0.985	-0.015	-	-	6,937	720,545						
2/13/2019	3,884	380,023	731,209	0.520	-0.654	-	-	3,884	380,023						
2/14/2019	613	72,905	731,209	0.100	-2.306	-	-	613	72,905						
2/15/2019	1,048	78,968	731,209	0.108	-2.226	-	-	1,048	78,968						
2/16/2019	64	7,549	731,209	0.010	-4.573	-	-	64	7,549						
2/17/2019	302	74,495	731,209	0.102	-2.284	-	-	302	74,495						
2/18/2019	66	15,700	731,209	0.021	-3.841	-	-	66	15,700						
2/19/2019	54	4,936	731,209	0.007	-4.998	-	-	54	4,936						
2/20/2019	1,689	210,451	731,209	0.288	-1.245	-	-	1,689	210,451						
2/21/2019	5,562	630,190	731,209	0.862	-0.149	-	-	5,562	630,190						
2/22/2019	43	8,527	731,209	0.012	-4.451	-	-	43	8,527						
2/23/2019	104	15,351	731,209	0.021	-3.864	-	-	104	15,351						
2/24/2019	132,311	54,532,420	731,209	74.578	4.312	6	14,826	132,305	54,517,594	1					
2/25/2019	12,909	6,238,349	731,209	8.532	2.144	-	-	12,909	6,238,349	1					
2/26/2019	1,438	291,884	731,209	0.399	-0.918	-	-	1,438	291,884						
2/27/2019	953	213,308	731,209	0.292	-1.232	-	-	953	213,308						
2/28/2019	285	30,885	731,209	0.042	-3.164	-	-	285	30,885						
3/1/2019	2,747	130,355	731,209	0.178	-1.724	-	-	2,747	130,355						
3/2/2019	360	23,865	731,209	0.033	-3.422	-	-	360	23,865						
3/3/2019	71	16,590	731,209	0.023	-3.786	-	-	71	16,590						
3/4/2019	103	17,406	731,209	0.024	-3.738	-	-	103	17,406						
3/5/2019	30	6,279	731,209	0.009	-4.757	-	-	30	6,279						
3/6/2019	143	20,908	731,209	0.029	-3.555	-	-	143	20,908						
3/7/2019	345	43,285	731,209	0.059	-2.827	-	-	345	43,285						
3/8/2019	1,186	206,207	731,209	0.282	-1.266	-	-	1,186	206,207						
3/9/2019	14,024	2,473,490	731,209	3.383	1.219	-	-	14,024	2,473,490						
3/10/2019	4,850	653,763	731,209	0.894	-0.112	-	-	4,850	653,763						
3/11/2019	355	64,632	731,209	0.088	-2.426	-	-	355	64,632						
3/12/2019	8,900	415,560	731,209	0.568	-0.565	-	-	8,900	415,560						
3/13/2019	9,035	1,122,862	731,209	1.536	0.429	-	-	9,035	1,122,862						
3/14/2019	2,920	534,354	731,209	0.731	-0.314	-	-	2,920	534,354						
3/15/2019	761	95,236	731,209	0.130	-2.038	-	-	761	95,236						
3/16/2019	2,237	238,620	731,209	0.326	-1.120	-	-	2,237	238,620						
3/17/2019	38	6,008	731,209	0.008	-4.802	-	-	38	6,008						
3/18/2019	15,177	414,369	731,209	0.567	-0.568	-	-	15,177	414,369						
3/19/2019	60	7,954	731,209	0.011	-4.521	-	-	60	7,954						
3/20/2019	53	11,219	731,209	0.015	-4.177	-	-	53	11,219						
3/21/2019	163	33,908	731,209	0.046	-3.071	-	-	163	33,908						
3/22/2019	171	22,285	731,209	0.030	-3.491	-	-	171	22,285						
3/23/2019	217	74,678	731,209	0.102	-2.282	-	-	217	74,678						
3/24/2019	34	3,097	731,209	0.004	-5.464	-	-	34	3,097						
3/25/2019	341	35,388	731,209	0.048	-3.028	-	-	341	35,388						
3/26/2019	463	36,557	731,209	0.050	-2.996	-	-	463	36,557						
3/27/2019	5,318	560,167	731,209	0.766	-0.266	-	-	5,318	560,167						
3/28/2019	235	43,675	731,209	0.060	-2.818	-	-	235	43,675						
3/29/2019	1,213	87,994	731,209	0.120	-2.117	-	-	1,213	87,994						
3/30/2019	4,036	375,846	731,209	0.514	-0.666	-	-	4,036	375,846						
3/31/2019	4,989	1,086,795	731,209	1.486	0.396	-	-	4,989	1,086,795						
4/1/2019	431	28,113	731,209	0.038	-3.258	-	-	431	28,113						
4/2/2019	1,154	90,303	731,209	0.123	-2.092	-	-	1,154	90,303						
4/3/2019	990	74,619	731,209	0.102	-2.282	-	-	990	74,619						
4/4/2019	250	80,380	731,209	0.110	-2.208	-	-	250	80,380						
4/5/2019	608	281,642	731,209	0.385	-0.954	-	-	608	281,642						
4/6/2019	617	59,152	731,209	0.081	-2.515	-	-	617	59,152						
4/7/2019	110	31,410	731,209	0.043	-3.148	-	-	110	31,410						
4/8/2019	684	23,376	731,209	0.032	-3.443	-	-	684	23,376						
4/9/2019	177	34,147	731,209	0.047	-3.064	-	-	177	34,147						
4/10/2019	154	37,431	731,209	0.051	-2.972	-	-	154	37,431						
4/11/2019	952	59,567	731,209	0.081	-2.508	-	-	952	59,567						
4/12/2019	3,703	594,767	731,209	0.813	-0.207	-	-	3,703	594,767						
4/13/2019	615	57,683	731,209	0.079	-2.540	-	-	615	57,683						
4/14/2019	2,911	316,739	731,209	0.433	-0.837	-	-	2,911	316,739						
4/15/2019	3,682	335,754	731,209	0.459	-0.778	-	-	3,682	335,754						
4/16/2019	80	14,140	731,209	0.019	-3.946	-	-	80	14,140						
4/17/2019	583	353,661	731,209	0.484	-0.726	-	-	583	353,661						
4/18/2019	1,158	212,320	731,209	0.290	-1.237	-	-	1,158	212,320						
4/19/2019	714	67,921	731,209	0.093	-2.376	-	-	714	67,921						
4/20/2019	2,487	407,416	731,209	0.557	-0.585	-	-	2,487	407,416						
4/21/2019	319	27,153	731,209	0.037	-3.293	-	-	319	27,153						
4/22/2019	337	107,975	731,209	0.148	-1.913	-	-	337	107,975						
4/23/2019	1,968	63,313	731,209	0.087	-2.447	-	-	1,968	63,313						
4/24/2019	8,315	397,671	731,209	0.544	-0.609	-	-	8,315	397,671						
4/25/2019	2,007	235,513	731,209	0.322	-1.133	-	-	2,007	235,513						
4/26/2019	2,554	228,149	731,209	0.312	-1.165	-	-	2,554	228,149						
4/27/2019	58	19,688	731,209	0.027	-3.615	-	-	58	19,688						
4/28/2019	304	44,087	731,209	0.060	-2.809	-	-	304	44,087						
4/29/2019	182	26,510	731,209	0.036	-3.317	-	-	182	26,510						
4/30/2019	565	123,236	731,209	0.169	-1.781	-	-	565	123,236						
5/1/2019	920	117,780	731,209	0.161	-1.826	-	-	920	117,780						
5/2/2019	184	25,520	731,209	0.035	-3.355	-	-	184	25,520						
5/3/2019	1,967	227,224	731,209	0.311	-1.169	-	-	1,967	227,224						
5/4/2019	75	10,167	731,209	0.014	-4.276	-	-	75	10,167						
5/5/2019	1,594	87,912	731,209	0.120	-2.118	-	-	1,594	87,912						
5/6/2019	115	11,511	731,209	0.016	-4.151	-	-	115	11,511						
5/7/2019	305	33,272	731,209	0.046	-3.090	-	-	305	33,272						
5/8/2019	164	38,334	731,209	0.052	-2.948	-	-	164	38,334						
5/9/2019	889	114,757	731,209	0.157	-1.852	-	-	889	114,757						
5/10/2019	794	30,415	731,209	0.042	-3.180	-	-	794	30,415						
5/11/2019	196	24,685	731,209	0.034	-3.389	-	-	196	24,685						
5/12/2019	660	110,191	731,209	0.151	-1.892	-	-	660	110,191						
5/13/2019	3,378	474,290	731,209	0.649	-0.433	-	-	3,378	474,290						
5/14/2019	157	22,102	731,209	0.030	-3.499	-	-	157	22,102						
5/15/2019	272	56,719	731,209	0.078	-2.557	-	-	272	56,719						
5/16/2019	5,209	320,671	731,209	0.439	-0.824	-	-	5,209	320,671						
5/17/2019	931	227,043	731,209	0.311	-1.170	-	-	931	227,043						
5/18/2019	579	175,712	731,209	0.240	-1.426	-	-	579	175,712						
5/19/2019	4,784	848,931	731,209	1.161	0.149	-	-	4,784	848,931						
5/20/2019	950	217,994	731,209	0.298	-1.210	-	-	950	217,994						
5/21/2019	1,162	158,991	731,209	0.217	-1.526	-	-	1,162	158,991						
5/22/2019	1,287	309,459	731,209	0.423	-0.860	-	-	1,287	309,459						
5/23/2019	13,260	1,676,859	731,209	2.293	0.830	-	-	13,260	1,676,859						

Major Event Day Thresholds ("TMED") Calculations - CEI

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
5/24/2019	885	105,800	731,209	0.145	-1.933	-	-	885	105,800						
5/25/2019	7,717	508,074	731,209	0.695	-0.364	-	-	7,717	508,074						
5/26/2019	192	74,550	731,209	0.102	-2.283	-	-	192	74,550						
5/27/2019	1,243	192,537	731,209	0.263	-1.334	-	-	1,243	192,537						
5/28/2019	6,329	817,463	731,209	1.118	0.112	-	-	6,329	817,463						
5/29/2019	442	102,513	731,209	0.140	-1.965	-	-	442	102,513						
5/30/2019	9,281	523,380	731,209	0.716	-0.334	-	-	9,281	523,380						
5/31/2019	3,435	369,933	731,209	0.506	-0.681	-	-	3,435	369,933						
6/1/2019	3,558	799,645	731,209	1.094	0.089	-	-	3,558	799,645						
6/2/2019	1,408	375,297	731,209	0.513	-0.667	-	-	1,408	375,297						
6/3/2019	215	52,370	731,209	0.072	-2.636	-	-	215	52,370						
6/4/2019	2,201	191,779	731,209	0.262	-1.338	-	-	2,201	191,779						
6/5/2019	4,698	460,382	731,209	0.630	-0.463	-	-	4,698	460,382						
6/6/2019	994	159,265	731,209	0.218	-1.524	-	-	994	159,265						
6/7/2019	2,268	283,512	731,209	0.388	-0.947	-	-	2,268	283,512						
6/8/2019	1,735	468,198	731,209	0.640	-0.446	-	-	1,735	468,198						
6/9/2019	1,338	266,553	731,209	0.365	-1.009	-	-	1,338	266,553						
6/10/2019	4,154	385,522	731,209	0.527	-0.640	-	-	4,154	385,522						
6/11/2019	8,679	246,826	731,209	0.338	-1.086	-	-	8,679	246,826						
6/12/2019	501	92,459	731,209	0.126	-2.068	-	-	501	92,459						
6/13/2019	6,078	762,774	731,209	1.043	0.042	-	-	6,078	762,774						
6/14/2019	725	136,836	731,209	0.187	-1.676	-	-	725	136,836						
6/15/2019	106	20,588	731,209	0.028	-3.570	-	-	106	20,588						
6/16/2019	2,840	416,572	731,209	0.570	-0.563	-	-	2,840	416,572						
6/17/2019	269	19,717	731,209	0.027	-3.613	-	-	269	19,717						
6/18/2019	6,569	754,019	731,209	1.031	0.031	-	-	6,569	754,019						
6/19/2019	1,130	234,020	731,209	0.320	-1.139	-	-	1,130	234,020						
6/20/2019	2,515	305,267	731,209	0.417	-0.874	-	-	2,515	305,267						
6/21/2019	224	51,766	731,209	0.071	-2.648	-	-	224	51,766						
6/22/2019	328	85,905	731,209	0.117	-2.141	-	-	328	85,905						
6/23/2019	475	73,883	731,209	0.101	-2.292	-	-	475	73,883						
6/24/2019	5,368	490,715	731,209	0.671	-0.399	-	-	5,368	490,715						
6/25/2019	6,837	746,421	731,209	1.021	0.021	-	-	6,837	746,421						
6/26/2019	6,673	537,864	731,209	0.736	-0.307	4,637	134,473	2,036	403,391						
6/27/2019	6,537	522,950	731,209	0.715	-0.335	-	-	6,537	522,950						
6/28/2019	5,442	933,240	731,209	1.276	0.244	-	-	5,442	933,240						
6/29/2019	3,535	569,490	731,209	0.779	-0.250	-	-	3,535	569,490						
6/30/2019	1,549	210,097	731,209	0.287	-1.247	-	-	1,549	210,097						
7/1/2019	725	108,049	731,209	0.148	-1.912	-	-	725	108,049						
7/2/2019	1,033	170,751	731,209	0.234	-1.454	-	-	1,033	170,751						
7/3/2019	2,257	311,538	731,209	0.426	-0.853	-	-	2,257	311,538						
7/4/2019	3,478	381,193	731,209	0.521	-0.651	-	-	3,478	381,193						
7/5/2019	10,475	1,736,033	731,209	2.374	0.865	-	-	10,475	1,736,033						
7/6/2019	559	135,236	731,209	0.185	-1.688	-	-	559	135,236						
7/7/2019	2,280	526,035	731,209	0.719	-0.329	-	-	2,280	526,035						
7/8/2019	181	34,893	731,209	0.048	-3.042	-	-	181	34,893						
7/9/2019	186	41,118	731,209	0.056	-2.878	-	-	186	41,118						
7/10/2019	37,576	3,849,754	731,209	5.265	1.661	-	-	37,576	3,849,754						
7/11/2019	1,691	144,558	731,209	0.198	-1.621	-	-	1,691	144,558						
7/12/2019	1,626	158,511	731,209	0.217	-1.529	-	-	1,626	158,511						
7/13/2019	666	134,658	731,209	0.184	-1.692	-	-	666	134,658						
7/14/2019	807	151,036	731,209	0.207	-1.577	-	-	807	151,036						
7/15/2019	2,135	268,032	731,209	0.367	-1.004	-	-	2,135	268,032						
7/16/2019	12,539	772,616	731,209	1.057	0.055	10,293	259,437	2,246	513,179						
7/17/2019	8,683	1,013,458	731,209	1.386	0.326	-	-	8,683	1,013,458						
7/18/2019	594	117,528	731,209	0.161	-1.828	-	-	594	117,528						
7/19/2019	1,632	196,890	731,209	0.269	-1.312	-	-	1,632	196,890						
7/20/2019	7,131	1,596,763	731,209	2.184	0.781	-	-	7,131	1,596,763						
7/21/2019	1,289	238,321	731,209	0.326	-1.121	-	-	1,289	238,321						
7/22/2019	1,492	168,030	731,209	0.230	-1.471	-	-	1,492	168,030						
7/23/2019	993	150,039	731,209	0.205	-1.584	-	-	993	150,039						
7/24/2019	489	57,218	731,209	0.078	-2.548	-	-	489	57,218						
7/25/2019	2,506	471,828	731,209	0.645	-0.438	-	-	2,506	471,828						
7/26/2019	1,892	165,790	731,209	0.227	-1.484	-	-	1,892	165,790						
7/27/2019	1,862	338,537	731,209	0.463	-0.770	-	-	1,862	338,537						
7/28/2019	1,388	157,049	731,209	0.215	-1.538	-	-	1,388	157,049						
7/29/2019	1,152	254,275	731,209	0.348	-1.056	-	-	1,152	254,275						
7/30/2019	2,212	306,013	731,209	0.419	-0.871	-	-	2,212	306,013						
7/31/2019	708	146,022	731,209	0.200	-1.611	-	-	708	146,022						
8/1/2019	586	112,944	731,209	0.154	-1.868	-	-	586	112,944						
8/2/2019	412	91,497	731,209	0.125	-2.078	-	-	412	91,497						
8/3/2019	324	55,095	731,209	0.075	-2.586	-	-	324	55,095						
8/4/2019	850	140,665	731,209	0.192	-1.648	-	-	850	140,665						
8/5/2019	2,578	228,152	731,209	0.312	-1.165	-	-	2,578	228,152						
8/6/2019	6,472	865,535	731,209	1.184	0.169	-	-	6,472	865,535						
8/7/2019	1,446	153,833	731,209	0.210	-1.559	-	-	1,446	153,833						
8/8/2019	13,872	791,031	731,209	1.082	0.079	6,636	367,101	7,236	423,930						
8/9/2019	796	184,372	731,209	0.252	-1.378	-	-	796	184,372						
8/10/2019	187	29,422	731,209	0.040	-3.213	-	-	187	29,422						
8/11/2019	545	108,679	731,209	0.149	-1.906	-	-	545	108,679						
8/12/2019	341	75,395	731,209	0.103	-2.272	-	-	341	75,395						
8/13/2019	644	126,725	731,209	0.173	-1.753	-	-	644	126,725						
8/14/2019	143	24,290	731,209	0.033	-3.405	-	-	143	24,290						
8/15/2019	3,849	631,987	731,209	0.864	-0.146	-	-	3,849	631,987						
8/16/2019	953	82,764	731,209	0.113	-2.179	-	-	953	82,764						
8/17/2019	482	161,739	731,209	0.221	-1.509	-	-	482	161,739						
8/18/2019	44,360	17,178,007	731,209	23.493	3.157	-	-	44,360	17,178,007	1					
8/19/2019	5,479	1,213,009	731,209	1.659	0.506	-	-	5,479	1,213,009						
8/20/2019	4,464	812,943	731,209	1.112	0.106	-	-	4,464	812,943						
8/21/2019	699	122,687	731,209	0.168	-1.785	-	-	699	122,687						
8/22/2019	3,934	613,728	731,209	0.839	-0.175	-	-	3,934	613,728						
8/23/2019	119	23,427	731,209	0.032	-3.441	-	-	119	23,427						
8/24/2019	76	15,004	731,209	0.021	-3.886	-	-	76	15,004						
8/25/2019	436	124,144	731,209	0.170	-1.773	-	-	436	124,144						
8/26/2019	342	74,277	731,209	0.102	-2.287	-	-	342	74,277						
8/27/2019	2,575	188,597	731,209	0.258	-1.355	-	-	2,575	188,597						
8/28/2019	1,490	336,820	731,209	0.461	-0.775	-	-	1,490	336,820						
8/29/2019	1,252	152,966	731,209	0.209	-1.564	-	-	1,252	152,966						
8/30/2019	340	47,461	731,209	0.065	-2.735	-	-	340	47,461						
8/31/2019	182	35,637	731,209	0.049	-3.021	-	-	182	35,637						
9/1/2019	943	305,275	731,209	0.417	-0.873	-	-	943	305,275						
9/2/2019	1,944	163,757	731,209	0.224	-1.496	-	-	1,944	163,757						
9/3/2019	843	148,659	731,209	0.203	-1.593	-	-	843	148,659						
9/4/2019	1,122	380,684	731,209	0.521	-0.653	-	-	1,122	380,684						
9/5/2019	397	88,947	731,209	0.122	-2.107	-	-	397	88,947						
9/6/2019	3,524	340,059	731,209	0.465	-0.766	-	-	3,524	340,059						
9/7/2019	164	30,791	731,209	0.042	-3.167	-	-	164	30,791						
9/8/2019	1,744	79,551	731,209	0.109	-2.218	-	-	1,744	79,551						

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
9/9/2019	1,494	68,301	731,209	0.093	-2.371	-	-	1,494	68,301						
9/10/2019	554	102,824	731,209	0.141	-1.962	-	-	554	102,824						
9/11/2019	11,623	704,393	731,209	0.963	-0.037	-	-	11,623	704,393						
9/12/2019	1,091	288,664	731,209	0.395	-0.929	-	-	1,091	288,664						
9/13/2019	57,809	63,634,778	731,209	87.027	4.466	-	-	57,809	63,634,778	1					
9/14/2019	8,077	6,850,398	731,209	9.369	2.237	-	-	8,077	6,850,398	1					
9/15/2019	1,650	820,564	731,209	1.122	0.115	-	-	1,650	820,564						
9/16/2019	2,216	573,437	731,209	0.784	-0.243	-	-	2,216	573,437						
9/17/2019	2,342	426,168	731,209	0.583	-0.540	-	-	2,342	426,168						
9/18/2019	490	101,592	731,209	0.139	-1.974	-	-	490	101,592						
9/19/2019	4,207	247,839	731,209	0.339	-1.082	-	-	4,207	247,839						
9/20/2019	1,509	151,174	731,209	0.207	-1.576	-	-	1,509	151,174						
9/21/2019	1,375	264,289	731,209	0.361	-1.018	-	-	1,375	264,289						
9/22/2019	2,723	367,391	731,209	0.502	-0.688	-	-	2,723	367,391						
9/23/2019	2,189	175,403	731,209	0.240	-1.428	-	-	2,189	175,403						
9/24/2019	1,374	194,713	731,209	0.266	-1.323	-	-	1,374	194,713						
9/25/2019	10,229	401,800	731,209	0.550	-0.599	-	-	10,229	401,800						
9/26/2019	368	83,091	731,209	0.114	-2.175	-	-	368	83,091						
9/27/2019	136	35,554	731,209	0.049	-3.024	-	-	136	35,554						
9/28/2019	2,221	296,729	731,209	0.406	-0.902	-	-	2,221	296,729						
9/29/2019	975	144,126	731,209	0.197	-1.624	-	-	975	144,126						
9/30/2019	948	85,258	731,209	0.117	-2.149	-	-	948	85,258						
10/1/2019	730	159,595	731,209	0.218	-1.522	-	-	730	159,595						
10/2/2019	13,106	995,253	731,209	1.361	0.308	-	-	13,106	995,253						
10/3/2019	972	307,346	731,209	0.420	-0.867	-	-	972	307,346						
10/4/2019	222	39,990	731,209	0.055	-2.906	-	-	222	39,990						
10/5/2019	1,403	174,521	731,209	0.239	-1.433	-	-	1,403	174,521						
10/6/2019	108	14,503	731,209	0.020	-3.920	-	-	108	14,503						
10/7/2019	488	73,731	731,209	0.101	-2.294	-	-	488	73,731						
10/8/2019	382	67,277	731,209	0.092	-2.386	-	-	382	67,277						
10/9/2019	383	60,826	731,209	0.083	-2.487	-	-	383	60,826						
10/10/2019	165	32,748	731,209	0.045	-3.106	-	-	165	32,748						
10/11/2019	1,279	155,488	731,209	0.213	-1.548	-	-	1,279	155,488						
10/12/2019	7,575	945,297	731,209	1.293	0.257	-	-	7,575	945,297						
10/13/2019	1,053	108,375	731,209	0.148	-1.909	-	-	1,053	108,375						
10/14/2019	1,170	214,314	731,209	0.293	-1.227	-	-	1,170	214,314						
10/15/2019	169	33,507	731,209	0.046	-3.083	-	-	169	33,507						
10/16/2019	4,767	975,267	731,209	1.334	0.288	-	-	4,767	975,267						
10/17/2019	6,348	1,289,271	731,209	1.763	0.567	-	-	6,348	1,289,271						
10/18/2019	321	63,790	731,209	0.087	-2.439	-	-	321	63,790						
10/19/2019	2,411	373,944	731,209	0.511	-0.671	-	-	2,411	373,944						
10/20/2019	293	49,625	731,209	0.068	-2.690	-	-	293	49,625						
10/21/2019	1,931	277,667	731,209	0.380	-0.968	-	-	1,931	277,667						
10/22/2019	1,128	153,590	731,209	0.210	-1.560	-	-	1,128	153,590						
10/23/2019	725	173,509	731,209	0.237	-1.438	-	-	725	173,509						
10/24/2019	628	64,659	731,209	0.088	-2.426	-	-	628	64,659						
10/25/2019	243	34,385	731,209	0.047	-3.057	-	-	243	34,385						
10/26/2019	1,319	461,726	731,209	0.631	-0.460	-	-	1,319	461,726						
10/27/2019	11,357	2,476,371	731,209	3.387	1.220	-	-	11,357	2,476,371						
10/28/2019	414	177,175	731,209	0.242	-1.418	-	-	414	177,175						
10/29/2019	784	93,519	731,209	0.128	-2.057	-	-	784	93,519						
10/30/2019	1,573	130,546	731,209	0.179	-1.723	-	-	1,573	130,546						
10/31/2019	27,565	7,004,176	731,209	9.579	2.260	-	-	27,565	7,004,176	1					
11/1/2019	12,612	3,860,775	731,209	5.280	1.664	-	-	12,612	3,860,775						
11/2/2019	136	28,424	731,209	0.039	-3.247	-	-	136	28,424						
11/3/2019	238	39,702	731,209	0.054	-2.913	-	-	238	39,702						
11/4/2019	478	142,668	731,209	0.195	-1.634	-	-	478	142,668						
11/5/2019	209	33,400	731,209	0.046	-3.086	-	-	209	33,400						
11/6/2019	416	65,074	731,209	0.089	-2.419	-	-	416	65,074						
11/7/2019	1,192	108,382	731,209	0.148	-1.909	-	-	1,192	108,382						
11/8/2019	265	51,592	731,209	0.071	-2.651	-	-	265	51,592						
11/9/2019	3,675	208,573	731,209	0.285	-1.254	-	-	3,675	208,573						
11/10/2019	94	19,738	731,209	0.027	-3.612	-	-	94	19,738						
11/11/2019	3,767	309,709	731,209	0.424	-0.859	-	-	3,767	309,709						
11/12/2019	2,627	298,047	731,209	0.408	-0.897	-	-	2,627	298,047						
11/13/2019	217	29,566	731,209	0.040	-3.208	-	-	217	29,566						
11/14/2019	4,281	300,372	731,209	0.411	-0.890	-	-	4,281	300,372						
11/15/2019	983	203,954	731,209	0.279	-1.277	-	-	983	203,954						
11/16/2019	1,431	190,328	731,209	0.260	-1.346	-	-	1,431	190,328						
11/17/2019	2,032	369,242	731,209	0.505	-0.683	-	-	2,032	369,242						
11/18/2019	2,734	180,396	731,209	0.247	-1.400	-	-	2,734	180,396						
11/19/2019	1,001	301,838	731,209	0.413	-0.885	-	-	1,001	301,838						
11/20/2019	206	34,862	731,209	0.048	-3.043	-	-	206	34,862						
11/21/2019	286	58,734	731,209	0.080	-2.522	-	-	286	58,734						
11/22/2019	946	203,068	731,209	0.278	-1.281	-	-	946	203,068						
11/23/2019	572	61,257	731,209	0.084	-2.480	-	-	572	61,257						
11/24/2019	129	32,508	731,209	0.044	-3.113	-	-	129	32,508						
11/25/2019	3,812	61,288	731,209	0.084	-2.479	-	-	3,812	61,288						
11/26/2019	248	31,417	731,209	0.043	-3.147	-	-	248	31,417						
11/27/2019	47,757	9,667,572	731,209	13.221	2.582	-	-	47,757	9,667,572	1					
11/28/2019	1,985	456,961	731,209	0.625	-0.470	-	-	1,985	456,961						
11/29/2019	103	33,468	731,209	0.046	-3.084	-	-	103	33,468						
11/30/2019	821	84,957	731,209	0.116	-2.153	-	-	821	84,957						
12/1/2019	1,785	527,579	731,209	0.722	-0.326	-	-	1,785	527,579						
12/2/2019	316	35,585	731,209	0.049	-3.023	-	-	316	35,585						
12/3/2019	2,521	81,841	731,209	0.112	-2.190	-	-	2,521	81,841						
12/4/2019	1,727	92,410	731,209	0.126	-2.068	-	-	1,727	92,410						
12/5/2019	106	21,674	731,209	0.030	-3.519	-	-	106	21,674						
12/6/2019	134	21,551	731,209	0.029	-3.524	-	-	134	21,551						
12/7/2019	169	28,711	731,209	0.039	-3.237	-	-	169	28,711						
12/8/2019	340	57,393	731,209	0.078	-2.545	-	-	340	57,393						
12/9/2019	6,846	856,521	731,209	1.171	0.158	-	-	6,846	856,521						
12/10/2019	2,482	360,784	731,209	0.493	-0.706	-	-	2,482	360,784						
12/11/2019	209	36,385	731,209	0.050	-3.001	-	-	209	36,385						
12/12/2019	360	37,867	731,209	0.052	-2.961	-	-	360	37,867						
12/13/2019	12	2,779	731,209	0.004	-5.573	-	-	12	2,779						
12/14/2019	494	45,744	731,209	0.063	-2.772	-	-	494	45,744						
12/15/2019	196	45,145	731,209	0.062	-2.785	-	-	196	45,145						
12/16/2019	789	107,581	731,209	0.147	-1.916	-	-	789	107,581						
12/17/2019	1,905	201,743	731,209	0.276	-1.288	-	-	1,905	201,743						
12/18/2019	1,859	318,627	731,209	0.436	-0.831	-	-	1,859	318,627						
12/19/2019	189	39,495	731,209	0.054	-2.919	-	-	189	39,495						
12/20/2019	266	39,015	731,209	0.053	-2.931	-	-	266	39,015						
12/21/2019	55	5,372	731,209	0.007	-4.913	-	-	55	5,372						
12/22/2019	121	46,488	731,209	0.064	-2.756	-	-	121	46,488						
12/23/2019	1,873	150,141	731,209	0.205	-1.583	-	-	1,873	150,141						
12/24/2019	868	51,185	731,209	0.070	-2.659	-	-	868	51,185						
12/25/2019	3,277	398,439	731,209	0.545	-0.607	-	-	3,277	398,439						

Major Event Day Thresholds ("TMED") Calculations - CEI

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
12/26/2019	2,003	583,867	731,209	0.798	-0.225	-	-	2,003	583,867						
12/27/2019	552	96,273	731,209	0.132	-2.028	-	-	552	96,273						
12/28/2019	4	457	731,209	0.001	-7.378	-	-	4	457						
12/29/2019	4,188	225,661	731,209	0.309	-1.176	-	-	4,188	225,661						
12/30/2019	20,783	6,954,964	731,209	9.512	2.253	-	-	20,783	6,954,964	1					
12/31/2019	2,102	303,034	731,209	0.414	-0.881	-	-	2,102	303,034						
1/1/2020	1,031	111,437	735,260	0.152	-1.887	-	-	1,031	111,437						
1/2/2020	565	51,035	735,260	0.069	-2.668	-	-	565	51,035						
1/3/2020	1,302	156,665	735,260	0.213	-1.546	-	-	1,302	156,665						
1/4/2020	768	93,445	735,260	0.127	-2.063	-	-	768	93,445						
1/5/2020	151	24,731	735,260	0.034	-3.392	-	-	151	24,731						
1/6/2020	656	35,532	735,260	0.048	-3.030	-	-	656	35,532						
1/7/2020	1,637	100,354	735,260	0.136	-1.992	-	-	1,637	100,354						
1/8/2020	196	31,263	735,260	0.043	-3.158	-	-	196	31,263						
1/9/2020	457	16,649	735,260	0.023	-3.788	-	-	457	16,649						
1/10/2020	4,296	226,539	735,260	0.308	-1.177	-	-	4,296	226,539						
1/11/2020	3,711	713,100	735,260	0.970	-0.031	-	-	3,711	713,100						
1/12/2020	7,171	693,657	735,260	0.943	-0.058	-	-	7,171	693,657						
1/13/2020	1,264	153,515	735,260	0.209	-1.566	-	-	1,264	153,515						
1/14/2020	490	94,925	735,260	0.129	-2.047	-	-	490	94,925						
1/15/2020	155	20,393	735,260	0.028	-3.585	-	-	155	20,393						
1/16/2020	1,319	196,245	735,260	0.267	-1.321	-	-	1,319	196,245						
1/17/2020	218	43,370	735,260	0.059	-2.830	-	-	218	43,370						
1/18/2020	7,641	675,824	735,260	0.919	-0.084	-	-	7,641	675,824						
1/19/2020	1,263	280,568	735,260	0.382	-0.963	-	-	1,263	280,568						
1/20/2020	508	82,135	735,260	0.112	-2.192	-	-	508	82,135						
1/21/2020	70	16,347	735,260	0.022	-3.806	-	-	70	16,347						
1/22/2020	568	128,925	735,260	0.175	-1.741	-	-	568	128,925						
1/23/2020	153	32,661	735,260	0.044	-3.114	-	-	153	32,661						
1/24/2020	3,142	182,260	735,260	0.248	-1.395	-	-	3,142	182,260						
1/25/2020	3,374	211,508	735,260	0.288	-1.246	-	-	3,374	211,508						
1/26/2020	33	5,555	735,260	0.008	-4.886	-	-	33	5,555						
1/27/2020	209	43,537	735,260	0.059	-2.827	-	-	209	43,537						
1/28/2020	176	56,894	735,260	0.077	-2.559	-	-	176	56,894						
1/29/2020	28	6,699	735,260	0.009	-4.698	-	-	28	6,699						
1/30/2020	89	7,504	735,260	0.010	-4.585	-	-	89	7,504						
1/31/2020	629	100,692	735,260	0.137	-1.988	-	-	629	100,692						
2/1/2020	25	5,515	735,260	0.008	-4.893	-	-	25	5,515						
2/2/2020	366	78,482	735,260	0.107	-2.237	-	-	366	78,482						
2/3/2020	3,145	172,278	735,260	0.234	-1.451	-	-	3,145	172,278						
2/4/2020	88	12,268	735,260	0.017	-4.093	-	-	88	12,268						
2/5/2020	1,027	170,612	735,260	0.232	-1.461	-	-	1,027	170,612						
2/6/2020	259	22,642	735,260	0.031	-3.480	-	-	259	22,642						
2/7/2020	2,204	434,958	735,260	0.592	-0.525	-	-	2,204	434,958						
2/8/2020	480	24,709	735,260	0.034	-3.393	-	-	480	24,709						
2/9/2020	2,097	274,910	735,260	0.374	-0.984	-	-	2,097	274,910						
2/10/2020	790	78,386	735,260	0.107	-2.239	-	-	790	78,386						
2/11/2020	2,033	201,718	735,260	0.274	-1.293	-	-	2,033	201,718						
2/12/2020	2,442	109,474	735,260	0.149	-1.905	-	-	2,442	109,474						
2/13/2020	342	118,102	735,260	0.161	-1.829	-	-	342	118,102						
2/14/2020	2,443	250,294	735,260	0.340	-1.078	-	-	2,443	250,294						
2/15/2020	1,383	132,817	735,260	0.181	-1.711	-	-	1,383	132,817						
2/16/2020	80	19,332	735,260	0.026	-3.638	-	-	80	19,332						
2/17/2020	72	13,332	735,260	0.018	-4.010	-	-	72	13,332						
2/18/2020	7,549	789,979	735,260	1.074	0.072	-	-	7,549	789,979						
2/19/2020	282	25,580	735,260	0.035	-3.358	-	-	282	25,580						
2/20/2020	356	15,435	735,260	0.021	-3.864	-	-	356	15,435						
2/21/2020	148	14,832	735,260	0.020	-3.903	-	-	148	14,832						
2/22/2020	170	19,030	735,260	0.026	-3.654	-	-	170	19,030						
2/23/2020	308	52,592	735,260	0.072	-2.638	-	-	308	52,592						
2/24/2020	2,793	95,926	735,260	0.130	-2.037	-	-	2,793	95,926						
2/25/2020	157	37,570	735,260	0.051	-2.974	-	-	157	37,570						
2/26/2020	490	69,224	735,260	0.094	-2.363	-	-	490	69,224						
2/27/2020	4,713	466,141	735,260	0.634	-0.456	-	-	4,713	466,141						
2/28/2020	554	104,558	735,260	0.142	-1.950	-	-	554	104,558						
2/29/2020	2,038	181,411	735,260	0.247	-1.399	-	-	2,038	181,411						
3/1/2020	297	68,481	735,260	0.093	-2.374	-	-	297	68,481						
3/2/2020	1,124	36,579	735,260	0.050	-3.001	-	-	1,124	36,579						
3/3/2020	4,068	357,230	735,260	0.486	-0.722	-	-	4,068	357,230						
3/4/2020	260	68,926	735,260	0.094	-2.367	-	-	260	68,926						
3/5/2020	37	4,688	735,260	0.006	-5.055	-	-	37	4,688						
3/6/2020	308	52,220	735,260	0.071	-2.645	-	-	308	52,220						
3/7/2020	73	7,662	735,260	0.010	-4.564	-	-	73	7,662						
3/8/2020	431	79,133	735,260	0.108	-2.229	-	-	431	79,133						
3/9/2020	1,076	56,639	735,260	0.077	-2.564	-	-	1,076	56,639						
3/10/2020	6,607	1,219,433	735,260	1.659	0.506	-	-	6,607	1,219,433						
3/11/2020	605	50,079	735,260	0.068	-2.687	-	-	605	50,079						
3/12/2020	13	3,258	735,260	0.004	-5.419	-	-	13	3,258						
3/13/2020	5,298	771,893	735,260	1.050	0.049	-	-	5,298	771,893						
3/14/2020	53	16,135	735,260	0.022	-3.819	-	-	53	16,135						
3/15/2020	2,451	283,826	735,260	0.386	-0.952	-	-	2,451	283,826						
3/16/2020	76	11,585	735,260	0.016	-4.151	-	-	76	11,585						
3/17/2020	110	8,281	735,260	0.011	-4.486	-	-	110	8,281						
3/18/2020	156	23,317	735,260	0.032	-3.451	-	-	156	23,317						
3/19/2020	182	41,005	735,260	0.056	-2.887	-	-	182	41,005						
3/20/2020	1,209	138,492	735,260	0.188	-1.669	-	-	1,209	138,492						
3/21/2020	210	33,073	735,260	0.045	-3.102	-	-	210	33,073						
3/22/2020	7,721	102,432	735,260	0.139	-1.971	-	-	7,721	102,432						
3/23/2020	11,744	255,876	735,260	0.348	-1.056	-	-	11,744	255,876						
3/24/2020	43	8,062	735,260	0.011	-4.513	-	-	43	8,062						
3/25/2020	171	17,488	735,260	0.024	-3.739	-	-	171	17,488						
3/26/2020	662	56,222	735,260	0.076	-2.571	-	-	662	56,222						
3/27/2020	361	57,839	735,260	0.079	-2.543	-	-	361	57,839						
3/28/2020	329	38,163	735,260	0.052	-2.958	-	-	329	38,163						
3/29/2020	13,828	1,929,692	735,260	2.625	0.965	-	-	13,828	1,929,692						
3/30/2020	753	159,557	735,260	0.217	-1.528	-	-	753	159,557						
3/31/2020	109	5,367	735,260	0.007	-4.920	-	-	109	5,367						
4/1/2020	80	22,932	735,260	0.031	-3.468	-	-	80	22,932						
4/2/2020	140	16,612	735,260	0.023	-3.790	-	-	140	16,612						
4/3/2020	2,389	71,559	735,260	0.097	-2.330	-	-	2,389	71,559						
4/4/2020	163	20,250	735,260	0.028	-3.592	-	-	163	20,250						
4/5/2020	26	4,103	735,260	0.006	-5.189	-	-	26	4,103						
4/6/2020	1,262	143,655	735,260	0.195	-1.633	-	-	1,262	143,655						
4/7/2020	8,196	3,175,663	735,260	4.319	1.463	-	-	8,196	3,175,663						
4/8/2020	8,338	1,092,385	735,260	1.486	0.396	-	-	8,338	1,092,385						
4/9/2020	4,608	291,317	735,260	0.396	-0.926	-	-	4,608	291,317						
4/10/2020	4,857	590,603	735,260	0.803	-0.219	-	-	4,857	590,603						
4/11/2020	47	9,810	735,260	0.013	-4.317	-	-	47	9,810						

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
4/12/2020	236	36,371	735,260	0.049	-3.006	-	-	236	36,371						
4/13/2020	7,575	683,217	735,260	0.929	-0.073	-	-	7,575	683,217						
4/14/2020	964	145,842	735,260	0.198	-1.618	-	-	964	145,842						
4/15/2020	67	15,391	735,260	0.021	-3.866	-	-	67	15,391						
4/16/2020	124	16,505	735,260	0.022	-3.797	-	-	124	16,505						
4/17/2020	379	46,302	735,260	0.063	-2.765	-	-	379	46,302						
4/18/2020	82	9,161	735,260	0.012	-4.385	-	-	82	9,161						
4/19/2020	521	52,425	735,260	0.071	-2.641	-	-	521	52,425						
4/20/2020	232	94,022	735,260	0.128	-2.057	-	-	232	94,022						
4/21/2020	682	97,799	735,260	0.133	-2.017	-	-	682	97,799						
4/22/2020	1,038	78,351	735,260	0.107	-2.239	-	-	1,038	78,351						
4/23/2020	810	40,270	735,260	0.055	-2.905	-	-	810	40,270						
4/24/2020	127	8,119	735,260	0.011	-4.506	-	-	127	8,119						
4/25/2020	2,178	192,961	735,260	0.262	-1.338	-	-	2,178	192,961						
4/26/2020	3,074	618,319	735,260	0.841	-0.173	-	-	3,074	618,319						
4/27/2020	1,249	126,386	735,260	0.172	-1.761	-	-	1,249	126,386						
4/28/2020	4,357	42,625	735,260	0.058	-2.848	-	-	4,357	42,625						
4/29/2020	146	24,363	735,260	0.033	-3.407	-	-	146	24,363						
4/30/2020	2,114	169,483	735,260	0.231	-1.467	-	-	2,114	169,483						
5/1/2020	54	9,685	735,260	0.013	-4.330	-	-	54	9,685						
5/2/2020	1,485	295,875	735,260	0.402	-0.910	-	-	1,485	295,875						
5/3/2020	279	31,683	735,260	0.043	-3.144	-	-	279	31,683						
5/4/2020	2,351	144,272	735,260	0.196	-1.629	-	-	2,351	144,272						
5/5/2020	526	72,183	735,260	0.098	-2.321	-	-	526	72,183						
5/6/2020	720	73,127	735,260	0.099	-2.308	-	-	720	73,127						
5/7/2020	1,050	298,983	735,260	0.407	-0.900	-	-	1,050	298,983						
5/8/2020	848	24,047	735,260	0.033	-3.420	-	-	848	24,047						
5/9/2020	444	51,317	735,260	0.070	-2.662	-	-	444	51,317						
5/10/2020	2,100	177,465	735,260	0.241	-1.421	-	-	2,100	177,465						
5/11/2020	3,754	114,748	735,260	0.156	-1.857	-	-	3,754	114,748						
5/12/2020	1,432	251,590	735,260	0.342	-1.072	-	-	1,432	251,590						
5/13/2020	514	76,226	735,260	0.104	-2.267	-	-	514	76,226						
5/14/2020	5,210	547,012	735,260	0.744	-0.296	-	-	5,210	547,012						
5/15/2020	3,955	471,814	735,260	0.642	-0.444	-	-	3,955	471,814						
5/16/2020	923	207,015	735,260	0.282	-1.267	-	-	923	207,015						
5/17/2020	6,787	550,489	735,260	0.749	-0.289	-	-	6,787	550,489						
5/18/2020	2,598	184,258	735,260	0.251	-1.384	-	-	2,598	184,258						
5/19/2020	3,714	610,967	735,260	0.831	-0.185	-	-	3,714	610,967						
5/20/2020	3,680	408,543	735,260	0.556	-0.588	-	-	3,680	408,543						
5/21/2020	370	53,831	735,260	0.073	-2.614	-	-	370	53,831						
5/22/2020	2,654	81,479	735,260	0.111	-2.200	-	-	2,654	81,479						
5/23/2020	2,452	340,335	735,260	0.463	-0.770	-	-	2,452	340,335						
5/24/2020	10,643	376,398	735,260	0.512	-0.670	-	-	10,643	376,398						
5/25/2020	4,188	420,916	735,260	0.572	-0.558	-	-	4,188	420,916						
5/26/2020	1,957	214,903	735,260	0.292	-1.230	-	-	1,957	214,903						
5/27/2020	3,955	311,381	735,260	0.423	-0.859	-	-	3,955	311,381						
5/28/2020	7,476	476,012	735,260	0.647	-0.435	-	-	7,476	476,012						
5/29/2020	2,020	242,587	735,260	0.330	-1.109	-	-	2,020	242,587						
5/30/2020	332	37,706	735,260	0.051	-2.970	-	-	332	37,706						
5/31/2020	484	213,936	735,260	0.291	-1.235	-	-	484	213,936						
6/1/2020	784	42,007	735,260	0.057	-2.862	-	-	784	42,007						
6/2/2020	2,508	250,112	735,260	0.340	-1.078	-	-	2,508	250,112						
6/3/2020	2,400	260,528	735,260	0.354	-1.038	-	-	2,400	260,528						
6/4/2020	2,786	158,347	735,260	0.215	-1.535	-	-	2,786	158,347						
6/5/2020	6,056	332,948	735,260	0.453	-0.792	-	-	6,056	332,948						
6/6/2020	1,513	206,875	735,260	0.281	-1.268	-	-	1,513	206,875						
6/7/2020	247	34,032	735,260	0.046	-3.073	-	-	247	34,032						
6/8/2020	240	27,799	735,260	0.038	-3.275	-	-	240	27,799						
6/9/2020	6,259	550,441	735,260	0.749	-0.290	-	-	6,259	550,441						
6/10/2020	38,765	18,570,142	735,260	25.257	3.229	-	-	38,765	18,570,142	1					
6/11/2020	3,769	1,078,440	735,260	1.467	0.383	-	-	3,769	1,078,440						
6/12/2020	1,445	199,315	735,260	0.271	-1.305	-	-	1,445	199,315						
6/13/2020	940	117,184	735,260	0.159	-1.836	-	-	940	117,184						
6/14/2020	2,210	418,281	735,260	0.569	-0.564	-	-	2,210	418,281						
6/15/2020	279	41,156	735,260	0.056	-2.883	-	-	279	41,156						
6/16/2020	4,766	483,139	735,260	0.657	-0.420	-	-	4,766	483,139						
6/17/2020	954	97,241	735,260	0.132	-2.023	-	-	954	97,241						
6/18/2020	1,320	681,631	735,260	0.927	-0.076	-	-	1,320	681,631						
6/19/2020	148	27,763	735,260	0.038	-3.277	-	-	148	27,763						
6/20/2020	501	124,356	735,260	0.169	-1.777	-	-	501	124,356						
6/21/2020	2,280	310,273	735,260	0.422	-0.863	-	-	2,280	310,273						
6/22/2020	5,072	619,262	735,260	0.842	-0.172	-	-	5,072	619,262						
6/23/2020	3,167	521,975	735,260	0.710	-0.343	-	-	3,167	521,975						
6/24/2020	549	74,152	735,260	0.101	-2.294	-	-	549	74,152						
6/25/2020	3,192	305,754	735,260	0.416	-0.877	-	-	3,192	305,754						
6/26/2020	669	113,805	735,260	0.155	-1.866	-	-	669	113,805						
6/27/2020	6,070	1,290,053	735,260	1.755	0.562	-	-	6,070	1,290,053						
6/28/2020	924	201,759	735,260	0.274	-1.293	-	-	924	201,759						
6/29/2020	3,928	919,783	735,260	1.251	0.224	-	-	3,928	919,783						
6/30/2020	1,751	168,875	735,260	0.230	-1.471	-	-	1,751	168,875						
7/1/2020	2,532	148,423	735,260	0.202	-1.600	-	-	2,532	148,423						
7/2/2020	3,528	179,294	735,260	0.244	-1.411	-	-	3,528	179,294						
7/3/2020	3,922	253,827	735,260	0.345	-1.064	-	-	3,922	253,827						
7/4/2020	423	66,508	735,260	0.090	-2.403	-	-	423	66,508						
7/5/2020	2,574	211,827	735,260	0.288	-1.244	-	-	2,574	211,827						
7/6/2020	2,529	420,925	735,260	0.572	-0.558	-	-	2,529	420,925						
7/7/2020	12,469	758,815	735,260	1.032	0.032	-	-	12,469	758,815						
7/8/2020	5,996	358,154	735,260	0.487	-0.719	-	-	5,996	358,154						
7/9/2020	2,205	532,697	735,260	0.725	-0.322	-	-	2,205	532,697						
7/10/2020	6,450	652,847	735,260	0.888	-0.119	2,010	80,400	4,440	572,447						
7/11/2020	2,841	638,755	735,260	0.869	-0.141	-	-	2,841	638,755						
7/12/2020	1,738	446,946	735,260	0.608	-0.498	-	-	1,738	446,946						
7/13/2020	3,087	409,942	735,260	0.558	-0.584	-	-	3,087	409,942						
7/14/2020	877	126,068	735,260	0.171	-1.763	-	-	877	126,068						
7/15/2020	2,770	192,338	735,260	0.262	-1.341	-	-	2,770	192,338						
7/16/2020	965	113,071	735,260	0.154	-1.872	-	-	965	113,071						
7/17/2020	1,305	206,157	735,260	0.280	-1.272	-	-	1,305	206,157						
7/18/2020	2,770	219,589	735,260	0.299	-1.208	-	-	2,770	219,589						
7/19/2020	14,254	2,710,247	735,260	3.686	1.305	-	-	14,254	2,710,247						
7/20/2020	5,324	433,422	735,260	0.589	-0.529	-	-	5,324	433,422						
7/21/2020	2,497	142,146	735,260	0.193	-1.643	-	-	2,497	142,146						
7/22/2020	1,622	257,520	735,260	0.350	-1.049	-	-	1,622	257,520						
7/23/2020	10,709	731,615	735,260	0.995	-0.005	-	-	10,709	731,615						
7/24/2020	1,052	122,314	735,260	0.166	-1.794	-	-	1,052	122,314						
7/25/2020	1,923	209,462	735,260	0.285	-1.256	-	-	1,923	209,462						
7/26/2020	2,274	285,493	735,260	0.388	-0.946	-	-	2,274	285,493						
7/27/2020	2,251	228,573	735,260	0.311	-1.168	-	-	2,251	228,573						
7/28/2020	2,950	320,825	735,260	0.436	-0.829	-	-	2,950	320,825						

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
7/29/2020	3,573	455,762	735,260	0.620	-0.478	-	-	3,573	455,762						
7/30/2020	1,456	336,396	735,260	0.458	-0.782	-	-	1,456	336,396						
7/31/2020	5,792	470,133	735,260	0.639	-0.447	-	-	5,792	470,133						
8/1/2020	3,285	490,850	735,260	0.668	-0.404	-	-	3,285	490,850						
8/2/2020	1,557	258,585	735,260	0.352	-1.045	-	-	1,557	258,585						
8/3/2020	11,302	566,087	735,260	0.770	-0.261	-	-	11,302	566,087						
8/4/2020	280	47,599	735,260	0.065	-2.737	-	-	280	47,599						
8/5/2020	1,530	199,777	735,260	0.272	-1.303	-	-	1,530	199,777						
8/6/2020	448	132,289	735,260	0.180	-1.715	-	-	448	132,289						
8/7/2020	251	39,443	735,260	0.054	-2.925	-	-	251	39,443						
8/8/2020	270	80,984	735,260	0.110	-2.206	-	-	270	80,984						
8/9/2020	7,013	592,994	735,260	0.807	-0.215	-	-	7,013	592,994						
8/10/2020	3,249	463,840	735,260	0.631	-0.461	-	-	3,249	463,840						
8/11/2020	3,892	547,094	735,260	0.744	-0.296	-	-	3,892	547,094						
8/12/2020	821	92,724	735,260	0.126	-2.071	-	-	821	92,724						
8/13/2020	3,617	471,808	735,260	0.642	-0.444	-	-	3,617	471,808						
8/14/2020	233	45,983	735,260	0.063	-2.772	-	-	233	45,983						
8/15/2020	307	89,831	735,260	0.122	-2.102	-	-	307	89,831						
8/16/2020	2,135	343,675	735,260	0.467	-0.761	-	-	2,135	343,675						
8/17/2020	807	146,004	735,260	0.199	-1.617	-	-	807	146,004						
8/18/2020	271	85,609	735,260	0.116	-2.150	-	-	271	85,609						
8/19/2020	3,459	416,313	735,260	0.566	-0.569	-	-	3,459	416,313						
8/20/2020	756	131,691	735,260	0.179	-1.720	-	-	756	131,691						
8/21/2020	152	54,238	735,260	0.074	-2.607	-	-	152	54,238						
8/22/2020	1,041	126,274	735,260	0.172	-1.762	-	-	1,041	126,274						
8/23/2020	224	63,956	735,260	0.087	-2.442	-	-	224	63,956						
8/24/2020	599	89,816	735,260	0.122	-2.102	-	-	599	89,816						
8/25/2020	411	147,393	735,260	0.200	-1.607	-	-	411	147,393						
8/26/2020	3,638	466,654	735,260	0.635	-0.455	-	-	3,638	466,654						
8/27/2020	1,906	182,727	735,260	0.249	-1.392	-	-	1,906	182,727						
8/28/2020	8,663	1,707,008	735,260	2.322	0.842	-	-	8,663	1,707,008						
8/29/2020	4,240	641,649	735,260	0.873	-0.136	-	-	4,240	641,649						
8/30/2020	1,697	221,964	735,260	0.302	-1.198	-	-	1,697	221,964						
8/31/2020	977	240,901	735,260	0.328	-1.116	-	-	977	240,901						
9/1/2020	2,492	272,901	735,260	0.371	-0.991	-	-	2,492	272,901						
9/2/2020	3,213	140,704	735,260	0.191	-1.654	-	-	3,213	140,704						
9/3/2020	167	24,404	735,260	0.033	-3.405	-	-	167	24,404						
9/4/2020	503	32,662	735,260	0.044	-3.114	-	-	503	32,662						
9/5/2020	131	24,162	735,260	0.033	-3.415	-	-	131	24,162						
9/6/2020	163	17,711	735,260	0.024	-3.726	-	-	163	17,711						
9/7/2020	3,195	805,873	735,260	1.096	0.092	-	-	3,195	805,873						
9/8/2020	342	59,453	735,260	0.081	-2.515	-	-	342	59,453						
9/9/2020	307	82,406	735,260	0.112	-2.189	-	-	307	82,406						
9/10/2020	2,282	207,372	735,260	0.282	-1.266	-	-	2,282	207,372						
9/11/2020	1,206	289,306	735,260	0.393	-0.933	-	-	1,206	289,306						
9/12/2020	393	75,773	735,260	0.103	-2.272	-	-	393	75,773						
9/13/2020	332	73,160	735,260	0.100	-2.308	-	-	332	73,160						
9/14/2020	162	28,726	735,260	0.039	-3.242	-	-	162	28,726						
9/15/2020	920	91,031	735,260	0.124	-2.089	-	-	920	91,031						
9/16/2020	834	149,660	735,260	0.204	-1.592	-	-	834	149,660						
9/17/2020	555	57,212	735,260	0.078	-2.553	-	-	555	57,212						
9/18/2020	584	136,503	735,260	0.186	-1.684	-	-	584	136,503						
9/19/2020	1,063	172,459	735,260	0.235	-1.450	-	-	1,063	172,459						
9/20/2020	1,196	269,716	735,260	0.367	-1.003	-	-	1,196	269,716						
9/21/2020	621	256,763	735,260	0.349	-1.052	-	-	621	256,763						
9/22/2020	54	7,534	735,260	0.010	-4.581	-	-	54	7,534						
9/23/2020	252	27,636	735,260	0.038	-3.281	-	-	252	27,636						
9/24/2020	184	32,722	735,260	0.045	-3.112	-	-	184	32,722						
9/25/2020	252	22,112	735,260	0.030	-3.504	-	-	252	22,112						
9/26/2020	363	48,836	735,260	0.066	-2.712	-	-	363	48,836						
9/27/2020	250	51,481	735,260	0.070	-2.659	-	-	250	51,481						
9/28/2020	6,763	317,782	735,260	0.432	-0.839	-	-	6,763	317,782						
9/29/2020	255	36,479	735,260	0.050	-3.003	-	-	255	36,479						
9/30/2020	4,444	737,683	735,260	1.003	0.003	-	-	4,444	737,683						
10/1/2020	1,198	136,586	735,260	0.186	-1.683	-	-	1,198	136,586						
10/2/2020	1,047	133,563	735,260	0.182	-1.706	-	-	1,047	133,563						
10/3/2020	541	77,919	735,260	0.106	-2.245	-	-	541	77,919						
10/4/2020	61	11,505	735,260	0.016	-4.157	-	-	61	11,505						
10/5/2020	729	83,806	735,260	0.114	-2.172	-	-	729	83,806						
10/6/2020	348	61,493	735,260	0.084	-2.481	-	-	348	61,493						
10/7/2020	573	75,834	735,260	0.103	-2.272	-	-	573	75,834						
10/8/2020	746	78,353	735,260	0.107	-2.239	-	-	746	78,353						
10/9/2020	2,332	211,267	735,260	0.287	-1.247	-	-	2,332	211,267						
10/10/2020	1,490	162,255	735,260	0.221	-1.511	-	-	1,490	162,255						
10/11/2020	851	137,121	735,260	0.186	-1.679	-	-	851	137,121						
10/12/2020	1,687	145,219	735,260	0.198	-1.622	-	-	1,687	145,219						
10/13/2020	331	45,446	735,260	0.062	-2.784	-	-	331	45,446						
10/14/2020	1,648	439,685	735,260	0.598	-0.514	-	-	1,648	439,685						
10/15/2020	1,444	335,056	735,260	0.456	-0.786	-	-	1,444	335,056						
10/16/2020	4,189	174,785	735,260	0.238	-1.437	-	-	4,189	174,785						
10/17/2020	3,445	184,051	735,260	0.250	-1.385	-	-	3,445	184,051						
10/18/2020	482	40,857	735,260	0.056	-2.890	-	-	482	40,857						
10/19/2020	3,167	174,150	735,260	0.237	-1.440	-	-	3,167	174,150						
10/20/2020	377	92,671	735,260	0.126	-2.071	-	-	377	92,671						
10/21/2020	9,530	1,758,147	735,260	2.391	0.872	-	-	9,530	1,758,147						
10/22/2020	4,438	665,102	735,260	0.905	-0.100	-	-	4,438	665,102						
10/23/2020	2,033	226,224	735,260	0.308	-1.179	-	-	2,033	226,224						
10/24/2020	3,013	371,285	735,260	0.505	-0.683	-	-	3,013	371,285						
10/25/2020	162	15,541	735,260	0.021	-3.857	-	-	162	15,541						
10/26/2020	292	25,678	735,260	0.035	-3.355	-	-	292	25,678						
10/27/2020	499	66,949	735,260	0.091	-2.396	-	-	499	66,949						
10/28/2020	332	60,710	735,260	0.083	-2.494	-	-	332	60,710						
10/29/2020	682	88,211	735,260	0.120	-2.120	-	-	682	88,211						
10/30/2020	374	71,315	735,260	0.097	-2.333	-	-	374	71,315						
10/31/2020	4,263	89,547	735,260	0.122	-2.105	-	-	4,263	89,547						
11/1/2020	99,470	24,842,802	735,260	33.788	3.520	-	-	99,470	24,842,802	1					
11/2/2020	3,109	667,371	735,260	0.908	-0.097	-	-	3,109	667,371						
11/3/2020	240	47,985	735,260	0.065	-2.729	-	-	240	47,985						
11/4/2020	3,574	193,032	735,260	0.263	-1.337	-	-	3,574	193,032						
11/5/2020	1,145	203,297	735,260	0.276	-1.286	-	-	1,145	203,297						
11/6/2020	555	84,624	735,260	0.115	-2.162	-	-	555	84,624						
11/7/2020	288	59,690	735,260	0.081	-2.511	-	-	288	59,690						
11/8/2020	186	22,161	735,260	0.030	-3.502	-	-	186	22,161						
11/9/2020	1,007	53,927	735,260	0.073	-2.613	-	-	1,007	53,927						
11/10/2020	1,338	108,689	735,260	0.148	-1.912	-	-	1,338	108,689						
11/11/2020	2,752	185,735	735,260	0.253	-1.376	-	-	2,752	185,735						
11/12/2020	104	20,440	735,260	0.028	-3.583	-	-	104	20,440						
11/13/2020	216	35,606	735,260	0.048	-3.028	-	-	216	35,606						

Major Event Day Thresholds ("TMED") Calculations - CEI

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE		YEAR	Alpha	Beta	TMED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED		G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
11/14/2020	139	43,310	735,260	0.059	-2.832	-	-	139	43,310						
11/15/2020	122,455	119,805,253	735,260	162.943	5.093	-	-	122,455	119,805,253	1					
11/16/2020	12,663	1,300,704	735,260	1.769	0.570	-	-	12,663	1,300,704						
11/17/2020	5,790	588,443	735,260	0.800	-0.223	1,910	19,100	3,880	569,343						
11/18/2020	5,617	515,992	735,260	0.702	-0.354	-	-	5,617	515,992						
11/19/2020	3,625	322,868	735,260	0.439	-0.823	-	-	3,625	322,868						
11/20/2020	972	146,349	735,260	0.199	-1.614	-	-	972	146,349						
11/21/2020	168	18,160	735,260	0.025	-3.701	-	-	168	18,160						
11/22/2020	1,039	150,102	735,260	0.204	-1.589	-	-	1,039	150,102						
11/23/2020	3,055	116,672	735,260	0.159	-1.841	-	-	3,055	116,672						
11/24/2020	469	69,394	735,260	0.094	-2.360	-	-	469	69,394						
11/25/2020	393	54,562	735,260	0.074	-2.601	-	-	393	54,562						
11/26/2020	353	65,348	735,260	0.089	-2.420	-	-	353	65,348						
11/27/2020	42	6,940	735,260	0.009	-4.663	-	-	42	6,940						
11/28/2020	72	10,416	735,260	0.014	-4.257	-	-	72	10,416						
11/29/2020	889	70,485	735,260	0.096	-2.345	-	-	889	70,485						
11/30/2020	822	101,511	735,260	0.138	-1.980	-	-	822	101,511						
12/1/2020	182,747	152,195,354	735,260	206.995	5.333	14,822	11,614,765	167,925	140,580,589	1					
12/2/2020	3,615	1,824,394	735,260	2.481	0.909	-	-	3,615	1,824,394						
12/3/2020	3,805	592,957	735,260	0.806	-0.215	-	-	3,805	592,957						
12/4/2020	3,148	311,332	735,260	0.423	-0.859	-	-	3,148	311,332						
12/5/2020	109	26,042	735,260	0.035	-3.341	-	-	109	26,042						
12/6/2020	1,095	103,676	735,260	0.141	-1.959	-	-	1,095	103,676						
12/7/2020	217	38,649	735,260	0.053	-2.946	-	-	217	38,649						
12/8/2020	156	44,370	735,260	0.060	-2.808	-	-	156	44,370						
12/9/2020	340	56,505	735,260	0.077	-2.566	-	-	340	56,505						
12/10/2020	467	71,479	735,260	0.097	-2.331	-	-	467	71,479						
12/11/2020	73	18,196	735,260	0.025	-3.699	-	-	73	18,196						
12/12/2020	998	51,461	735,260	0.070	-2.659	-	-	998	51,461						
12/13/2020	155	18,113	735,260	0.025	-3.704	-	-	155	18,113						
12/14/2020	907	59,084	735,260	0.080	-2.521	-	-	907	59,084						
12/15/2020	87	17,494	735,260	0.024	-3.738	-	-	87	17,494						
12/16/2020	469	116,867	735,260	0.159	-1.839	-	-	469	116,867						
12/17/2020	498	128,012	735,260	0.174	-1.748	-	-	498	128,012						
12/18/2020	594	70,827	735,260	0.096	-2.340	-	-	594	70,827						
12/19/2020	120	17,591	735,260	0.024	-3.733	-	-	120	17,591						
12/20/2020	86	10,368	735,260	0.014	-4.262	-	-	86	10,368						
12/21/2020	5,236	309,294	735,260	0.421	-0.866	-	-	5,236	309,294						
12/22/2020	130	16,057	735,260	0.022	-3.824	-	-	130	16,057						
12/23/2020	245	28,641	735,260	0.039	-3.245	-	-	245	28,641						
12/24/2020	6,446	864,549	735,260	1.176	0.162	-	-	6,446	864,549						
12/25/2020	2,017	322,326	735,260	0.438	-0.825	-	-	2,017	322,326						
12/26/2020	2,514	118,724	735,260	0.161	-1.823	-	-	2,514	118,724						
12/27/2020	182	19,006	735,260	0.026	-3.655	-	-	182	19,006						
12/28/2020	1,909	246,821	735,260	0.336	-1.092	-	-	1,909	246,821						
12/29/2020	7,766	677,850	735,260	0.922	-0.081	-	-	7,766	677,850						
12/30/2020	6,672	332,212	735,260	0.452	-0.794	-	-	6,672	332,212						

Major Event Day Thresholds ("TMED") Calculations - OE

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Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
1/1/2012	19,248	1,468,766	1,025,004	1.433	0.360					
1/2/2012	1,185	125,330	1,025,004	0.122	-2.102					
1/3/2012	7,098	368,750	1,025,004	0.360	-1.022					
1/4/2012	2,336	293,538	1,025,004	0.286	-1.250					
1/5/2012	488	117,487	1,025,004	0.115	-2.166					
1/6/2012	227	36,150	1,025,004	0.035	-3.345					
1/7/2012	155	9,672	1,025,004	0.009	-4.663					
1/8/2012	4,343	687,601	1,025,004	0.671	-0.399					
1/9/2012	265	24,514	1,025,004	0.024	-3.733					
1/10/2012	566	43,469	1,025,004	0.042	-3.160					
1/11/2012	2,257	215,526	1,025,004	0.210	-1.559					
1/12/2012	1,430	104,417	1,025,004	0.102	-2.284					
1/13/2012	3,610	455,780	1,025,004	0.445	-0.810					
1/14/2012	1,048	53,144	1,025,004	0.052	-2.959					
1/15/2012	696	69,829	1,025,004	0.068	-2.686					
1/16/2012	801	84,975	1,025,004	0.083	-2.490					
1/17/2012	17,994	2,741,642	1,025,004	2.675	0.984					
1/18/2012	462	45,673	1,025,004	0.045	-3.111					
1/19/2012	3,201	174,924	1,025,004	0.171	-1.768					
1/20/2012	979	182,516	1,025,004	0.178	-1.726					
1/21/2012	1,047	161,739	1,025,004	0.158	-1.846					
1/22/2012	512	31,932	1,025,004	0.031	-3.469					
1/23/2012	2,066	254,883	1,025,004	0.249	-1.392					
1/24/2012	237	21,315	1,025,004	0.021	-3.873					
1/25/2012	473	72,508	1,025,004	0.071	-2.649					
1/26/2012	594	56,331	1,025,004	0.055	-2.901					
1/27/2012	943	110,748	1,025,004	0.108	-2.225					
1/28/2012	9,025	259,691	1,025,004	0.253	-1.373					
1/29/2012	6,813	869,155	1,025,004	0.848	-0.165					
1/30/2012	774	82,757	1,025,004	0.081	-2.517					
1/31/2012	376	39,534	1,025,004	0.039	-3.255					
2/1/2012	511	37,812	1,025,004	0.037	-3.300					
2/2/2012	628	46,223	1,025,004	0.045	-3.099					
2/3/2012	287	20,486	1,025,004	0.020	-3.913					
2/4/2012	3,726	322,830	1,025,004	0.315	-1.155					
2/5/2012	116	10,489	1,025,004	0.010	-4.582					
2/6/2012	686	36,558	1,025,004	0.036	-3.334					
2/7/2012	81	7,701	1,025,004	0.008	-4.891					
2/8/2012	563	39,282	1,025,004	0.038	-3.262					
2/9/2012	404	41,113	1,025,004	0.040	-3.216					
2/10/2012	520	20,601	1,025,004	0.020	-3.907					
2/11/2012	1,466	241,543	1,025,004	0.236	-1.445					
2/12/2012	11	761	1,025,004	0.001	-7.206					
2/13/2012	223	22,182	1,025,004	0.022	-3.833					
2/14/2012	163	12,175	1,025,004	0.012	-4.433					
2/15/2012	535	53,637	1,025,004	0.052	-2.950					
2/16/2012	2,564	374,065	1,025,004	0.365	-1.008					
2/17/2012	283	33,315	1,025,004	0.033	-3.426					
2/18/2012	438	31,110	1,025,004	0.030	-3.495					
2/19/2012	1,681	208,162	1,025,004	0.203	-1.594					
2/20/2012	199	12,758	1,025,004	0.012	-4.386					
2/21/2012	2,368	160,222	1,025,004	0.156	-1.856					
2/22/2012	503	40,274	1,025,004	0.039	-3.237					
2/23/2012	2,713	166,916	1,025,004	0.163	-1.815					
2/24/2012	16,669	1,998,869	1,025,004	1.950	0.668					
2/25/2012	1,849	219,444	1,025,004	0.214	-1.541					
2/26/2012	231	12,887	1,025,004	0.013	-4.376					
2/27/2012	2,443	191,354	1,025,004	0.187	-1.678					
2/28/2012	300	20,693	1,025,004	0.020	-3.903					
2/29/2012	2,264	156,225	1,025,004	0.152	-1.881					
3/1/2012	357	75,495	1,025,004	0.074	-2.608					
3/2/2012	5,123	211,615	1,025,004	0.206	-1.578					
3/3/2012	1,239	118,213	1,025,004	0.115	-2.160					
3/4/2012	364	53,352	1,025,004	0.052	-2.956					
3/5/2012	319	24,490	1,025,004	0.024	-3.734					
3/6/2012	169	27,740	1,025,004	0.027	-3.610					
3/7/2012	1,808	112,354	1,025,004	0.110	-2.211					
3/8/2012	6,298	432,195	1,025,004	0.422	-0.864					
3/9/2012	739	126,026	1,025,004	0.123	-2.096					
3/10/2012	4,579	510,209	1,025,004	0.498	-0.698					
3/11/2012	628	112,500	1,025,004	0.110	-2.209					
3/12/2012	761	50,428	1,025,004	0.049	-3.012					
3/13/2012	1,135	102,981	1,025,004	0.100	-2.298					
3/14/2012	1,517	71,024	1,025,004	0.069	-2.669					
3/15/2012	3,030	456,266	1,025,004	0.445	-0.809					
3/16/2012	1,847	185,549	1,025,004	0.181	-1.709					
3/17/2012	1,345	140,814	1,025,004	0.137	-1.985					
3/18/2012	1,440	129,810	1,025,004	0.127	-2.066					
3/19/2012	684	54,897	1,025,004	0.054	-2.927					
3/20/2012	280	25,482	1,025,004	0.025	-3.694					
3/21/2012	459	36,930	1,025,004	0.036	-3.323					
3/22/2012	1,106	145,010	1,025,004	0.141	-1.956					
3/23/2012	2,136	107,615	1,025,004	0.105	-2.254					
3/24/2012	574	65,166	1,025,004	0.064	-2.756					
3/25/2012	489	36,857	1,025,004	0.036	-3.325					
3/26/2012	72	10,913	1,025,004	0.011	-4.542					
3/27/2012	1,855	162,948	1,025,004	0.159	-1.839					
3/28/2012	15,979	2,195,744	1,025,004	2.142	0.762					
3/29/2012	619	87,847	1,025,004	0.086	-2.457					
3/30/2012	1,817	79,365	1,025,004	0.077	-2.558					
3/31/2012	263	28,939	1,025,004	0.028	-3.567					
4/1/2012	759	70,656	1,025,004	0.069	-2.675					
4/2/2012	634	50,514	1,025,004	0.049	-3.010					
4/3/2012	1,446	67,451	1,025,004	0.066	-2.721					
4/4/2012	593	70,317	1,025,004	0.069	-2.679					
4/5/2012	2,718	231,985	1,025,004	0.226	-1.486					
4/6/2012	1,136	33,474	1,025,004	0.033	-3.422					
4/7/2012	369	37,473	1,025,004	0.037	-3.309					
4/8/2012	4,292	141,763	1,025,004	0.138	-1.978					
4/9/2012	1,162	145,474	1,025,004	0.142	-1.952					
4/10/2012	424	39,163	1,025,004	0.038	-3.265					
4/11/2012	2,334	80,508	1,025,004	0.079	-2.544					
4/12/2012	427	42,953	1,025,004	0.042	-3.172					
4/13/2012	273	22,134	1,025,004	0.022	-3.835					
4/14/2012	524	37,574	1,025,004	0.037	-3.306					
4/15/2012	1,914	418,626	1,025,004	0.408	-0.895					
4/16/2012	5,342	435,323	1,025,004	0.425	-0.856					
4/17/2012	1,044	149,839	1,025,004	0.146	-1.923					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
2017	-1.987	1.246	3.090
2018	-1.976	1.249	3.143
2019	-1.910	1.270	3.545
2020	-1.845	1.282	3.892
2021	-1.803	1.301	4.256

NOTES

(1) *Mean and Standard Deviation were calculated for previous 5 years of data.

NARRATIVE

(1) The IEEE 2.5 Beta Method was used to exclude major events from reliability data. See O.A.C. 4901:1-10-01(T).

(2) "TMED NEW RULE" means TMEDs calculated under O.A.C. 4901:1-10-01(T).

ASSUMPTIONS

(1) The calculation of TMED included transmission outages in the daily outage data.

(2) The Companies excluded days where the daily SAIDI exceeded the TMED value from their respective SAIFI and CAIDI reliability calculations.

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
4/18/2012	698	59,249	1,025,004	0.058	-2.851					
4/19/2012	2,184	227,345	1,025,004	0.222	-1.506					
4/20/2012	793	85,530	1,025,004	0.083	-2.484					
4/21/2012	3,603	377,857	1,025,004	0.369	-0.998					
4/22/2012	409	37,089	1,025,004	0.036	-3.319					
4/23/2012	17,104	2,210,278	1,025,004	2.156	0.768					
4/24/2012	757	127,383	1,025,004	0.124	-2.085					
4/25/2012	1,259	109,907	1,025,004	0.107	-2.233					
4/26/2012	3,062	283,415	1,025,004	0.277	-1.286					
4/27/2012	327	35,421	1,025,004	0.035	-3.365					
4/28/2012	618	46,322	1,025,004	0.045	-3.097					
4/29/2012	621	43,660	1,025,004	0.043	-3.156					
4/30/2012	2,277	225,936	1,025,004	0.220	-1.512					
5/1/2012	5,224	528,258	1,025,004	0.515	-0.663					
5/2/2012	853	94,463	1,025,004	0.092	-2.384					
5/3/2012	1,716	236,211	1,025,004	0.230	-1.468					
5/4/2012	2,669	327,772	1,025,004	0.320	-1.140					
5/5/2012	670	63,026	1,025,004	0.061	-2.789					
5/6/2012	1,913	221,508	1,025,004	0.216	-1.532					
5/7/2012	14,427	2,065,030	1,025,004	2.015	0.700					
5/8/2012	7,162	459,013	1,025,004	0.448	-0.803					
5/9/2012	12,594	398,782	1,025,004	0.389	-0.944					
5/10/2012	358	28,488	1,025,004	0.028	-3.583					
5/11/2012	3,273	197,618	1,025,004	0.193	-1.646					
5/12/2012	2,568	152,398	1,025,004	0.149	-1.906					
5/13/2012	1,283	92,283	1,025,004	0.090	-2.408					
5/14/2012	490	74,094	1,025,004	0.072	-2.627					
5/15/2012	832	78,999	1,025,004	0.077	-2.563					
5/16/2012	3,340	273,333	1,025,004	0.267	-1.322					
5/17/2012	883	85,062	1,025,004	0.083	-2.489					
5/18/2012	1,181	105,931	1,025,004	0.103	-2.270					
5/19/2012	1,176	121,289	1,025,004	0.118	-2.134					
5/20/2012	722	70,317	1,025,004	0.069	-2.679					
5/21/2012	2,985	302,500	1,025,004	0.295	-1.220					
5/22/2012	1,825	88,725	1,025,004	0.087	-2.447					
5/23/2012	1,065	94,965	1,025,004	0.093	-2.379					
5/24/2012	2,944	200,413	1,025,004	0.196	-1.632					
5/25/2012	5,225	493,794	1,025,004	0.482	-0.730					
5/26/2012	3,014	222,292	1,025,004	0.217	-1.528					
5/27/2012	5,323	732,729	1,025,004	0.715	-0.336					
5/28/2012	2,040	237,204	1,025,004	0.231	-1.464					
5/29/2012	8,042	1,117,959	1,025,004	1.091	0.087					
5/30/2012	1,070	70,606	1,025,004	0.069	-2.675					
5/31/2012	964	76,398	1,025,004	0.075	-2.596					
6/1/2012	32,730	1,662,813	1,025,004	1.622	0.484					
6/2/2012	2,504	75,667	1,025,004	0.074	-2.606					
6/3/2012	2,099	149,309	1,025,004	0.146	-1.926					
6/4/2012	1,060	203,660	1,025,004	0.199	-1.616					
6/5/2012	3,045	243,372	1,025,004	0.237	-1.438					
6/6/2012	1,165	107,785	1,025,004	0.105	-2.252					
6/7/2012	3,814	220,886	1,025,004	0.215	-1.535					
6/8/2012	1,373	99,802	1,025,004	0.097	-2.329					
6/9/2012	3,060	268,480	1,025,004	0.262	-1.340					
6/10/2012	4,313	768,965	1,025,004	0.750	-0.287					
6/11/2012	2,577	214,476	1,025,004	0.209	-1.564					
6/12/2012	9,916	311,168	1,025,004	0.304	-1.192					
6/13/2012	2,289	129,576	1,025,004	0.126	-2.068					
6/14/2012	1,978	127,287	1,025,004	0.124	-2.086					
6/15/2012	1,002	97,895	1,025,004	0.096	-2.349					
6/16/2012	1,832	117,832	1,025,004	0.115	-2.163					
6/17/2012	6,348	1,001,455	1,025,004	0.977	-0.023					
6/18/2012	9,673	1,795,173	1,025,004	1.751	0.560					
6/19/2012	4,403	552,805	1,025,004	0.539	-0.617					
6/20/2012	4,497	376,714	1,025,004	0.368	-1.001					
6/21/2012	3,745	339,790	1,025,004	0.332	-1.104					
6/22/2012	2,907	344,136	1,025,004	0.336	-1.091					
6/23/2012	1,520	133,055	1,025,004	0.130	-2.042					
6/24/2012	2,234	221,033	1,025,004	0.216	-1.534					
6/25/2012	4,774	366,479	1,025,004	0.358	-1.029					
6/26/2012	3,331	123,665	1,025,004	0.121	-2.115					
6/27/2012	16,510	1,436,848	1,025,004	1.402	0.338					
6/28/2012	5,344	545,099	1,025,004	0.532	-0.631					
6/29/2012	72,276	85,428,171	1,025,004	83.344	4.423					
6/30/2012	5,836	5,870,862	1,025,004	5.728	1.745					
7/1/2012	37,941	20,489,110	1,025,004	19.989	2.995					
7/2/2012	3,959	1,882,234	1,025,004	1.836	0.608					
7/3/2012	22,694	7,904,432	1,025,004	7.712	2.043					
7/4/2012	20,619	3,777,013	1,025,004	3.685	1.304					
7/5/2012	10,159	2,058,468	1,025,004	2.008	0.697					
7/6/2012	6,290	1,002,154	1,025,004	0.978	-0.023					
7/7/2012	13,066	2,261,828	1,025,004	2.207	0.791					
7/8/2012	1,276	152,984	1,025,004	0.149	-1.902					
7/9/2012	1,670	192,401	1,025,004	0.188	-1.673					
7/10/2012	1,071	145,135	1,025,004	0.142	-1.955					
7/11/2012	3,307	323,009	1,025,004	0.315	-1.155					
7/12/2012	3,785	324,891	1,025,004	0.317	-1.149					
7/13/2012	983	105,944	1,025,004	0.103	-2.270					
7/14/2012	3,123	220,865	1,025,004	0.215	-1.535					
7/15/2012	12,130	1,410,939	1,025,004	1.377	0.320					
7/16/2012	890	103,854	1,025,004	0.101	-2.289					
7/17/2012	3,850	428,465	1,025,004	0.418	-0.872					
7/18/2012	9,824	1,002,060	1,025,004	0.978	-0.023					
7/19/2012	9,206	606,252	1,025,004	0.591	-0.525					
7/20/2012	1,289	155,147	1,025,004	0.151	-1.888					
7/21/2012	994	116,145	1,025,004	0.113	-2.178					
7/22/2012	785	88,666	1,025,004	0.087	-2.448					
7/23/2012	1,164	138,223	1,025,004	0.135	-2.004					
7/24/2012	2,516	250,378	1,025,004	0.244	-1.409					
7/25/2012	9,460	1,656,931	1,025,004	1.617	0.480					
7/26/2012	45,693	5,372,451	1,025,004	5.241	1.657					
7/27/2012	10,459	1,271,875	1,025,004	1.241	0.216					
7/28/2012	1,883	362,175	1,025,004	0.353	-1.040					
7/29/2012	3,005	155,785	1,025,004	0.152	-1.884					
7/30/2012	1,114	138,220	1,025,004	0.135	-2.004					
7/31/2012	8,055	449,934	1,025,004	0.439	-0.823					
8/1/2012	3,107	366,828	1,025,004	0.358	-1.028					
8/2/2012	889	116,225	1,025,004	0.113	-2.177					
8/3/2012	1,253	155,575	1,025,004	0.152	-1.885					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
8/4/2012	5,510	805,205	1,025,004	0.786	-0.241					
8/5/2012	12,364	922,940	1,025,004	0.900	-0.105					
8/6/2012	613	65,747	1,025,004	0.064	-2.747					
8/7/2012	468	89,134	1,025,004	0.087	-2.442					
8/8/2012	11,950	2,339,432	1,025,004	2.282	0.825					
8/9/2012	6,802	749,493	1,025,004	0.731	-0.313					
8/10/2012	5,437	325,407	1,025,004	0.317	-1.147					
8/11/2012	3,220	336,290	1,025,004	0.328	-1.114					
8/12/2012	1,370	221,440	1,025,004	0.216	-1.532					
8/13/2012	802	152,893	1,025,004	0.149	-1.903					
8/14/2012	1,199	99,128	1,025,004	0.097	-2.336					
8/15/2012	1,907	276,266	1,025,004	0.270	-1.311					
8/16/2012	3,088	202,255	1,025,004	0.197	-1.623					
8/17/2012	1,612	144,325	1,025,004	0.141	-1.960					
8/18/2012	1,040	138,978	1,025,004	0.136	-1.998					
8/19/2012	2,153	176,524	1,025,004	0.172	-1.759					
8/20/2012	2,249	131,340	1,025,004	0.128	-2.055					
8/21/2012	1,467	124,787	1,025,004	0.122	-2.106					
8/22/2012	394	59,056	1,025,004	0.058	-2.854					
8/23/2012	1,373	177,761	1,025,004	0.173	-1.752					
8/24/2012	562	42,711	1,025,004	0.042	-3.178					
8/25/2012	1,006	72,966	1,025,004	0.071	-2.642					
8/26/2012	8,495	646,768	1,025,004	0.631	-0.460					
8/27/2012	4,149	280,842	1,025,004	0.274	-1.295					
8/28/2012	2,017	220,319	1,025,004	0.215	-1.537					
8/29/2012	355	39,109	1,025,004	0.038	-3.266					
8/30/2012	1,695	123,461	1,025,004	0.120	-2.117					
8/31/2012	7,326	574,344	1,025,004	0.560	-0.579					
9/1/2012	2,474	377,718	1,025,004	0.369	-0.998					
9/2/2012	1,860	239,159	1,025,004	0.233	-1.455					
9/3/2012	5,269	374,063	1,025,004	0.365	-1.008					
9/4/2012	650	82,105	1,025,004	0.080	-2.524					
9/5/2012	2,410	254,752	1,025,004	0.249	-1.392					
9/6/2012	3,830	248,377	1,025,004	0.242	-1.418					
9/7/2012	6,474	674,685	1,025,004	0.658	-0.418					
9/8/2012	2,811	314,323	1,025,004	0.307	-1.182					
9/9/2012	1,595	92,558	1,025,004	0.090	-2.405					
9/10/2012	997	81,977	1,025,004	0.080	-2.526					
9/11/2012	739	81,974	1,025,004	0.080	-2.526					
9/12/2012	841	70,277	1,025,004	0.069	-2.680					
9/13/2012	365	38,581	1,025,004	0.038	-3.280					
9/14/2012	1,904	224,885	1,025,004	0.219	-1.517					
9/15/2012	4,135	354,413	1,025,004	0.346	-1.062					
9/16/2012	407	28,558	1,025,004	0.028	-3.581					
9/17/2012	1,049	135,025	1,025,004	0.132	-2.027					
9/18/2012	2,246	201,497	1,025,004	0.197	-1.627					
9/19/2012	5,148	365,685	1,025,004	0.357	-1.031					
9/20/2012	715	60,473	1,025,004	0.059	-2.830					
9/21/2012	4,180	453,439	1,025,004	0.442	-0.816					
9/22/2012	4,277	579,339	1,025,004	0.565	-0.571					
9/23/2012	1,546	127,960	1,025,004	0.125	-2.081					
9/24/2012	3,565	184,530	1,025,004	0.180	-1.715					
9/25/2012	1,275	108,865	1,025,004	0.106	-2.242					
9/26/2012	3,004	223,947	1,025,004	0.218	-1.521					
9/27/2012	2,827	205,869	1,025,004	0.201	-1.605					
9/28/2012	669	63,131	1,025,004	0.062	-2.787					
9/29/2012	550	79,659	1,025,004	0.078	-2.555					
9/30/2012	312	24,445	1,025,004	0.024	-3.736					
10/1/2012	1,460	103,418	1,025,004	0.101	-2.294					
10/2/2012	4,493	361,777	1,025,004	0.353	-1.041					
10/3/2012	690	55,441	1,025,004	0.054	-2.917					
10/4/2012	2,428	175,964	1,025,004	0.172	-1.762					
10/5/2012	1,136	94,707	1,025,004	0.092	-2.382					
10/6/2012	1,997	315,916	1,025,004	0.308	-1.177					
10/7/2012	1,960	140,865	1,025,004	0.137	-1.985					
10/8/2012	8,812	877,707	1,025,004	0.856	-0.155					
10/9/2012	706	50,025	1,025,004	0.049	-3.020					
10/10/2012	459	47,657	1,025,004	0.046	-3.068					
10/11/2012	716	52,108	1,025,004	0.051	-2.979					
10/12/2012	4,421	248,433	1,025,004	0.242	-1.417					
10/13/2012	529	53,867	1,025,004	0.053	-2.946					
10/14/2012	12,361	1,384,007	1,025,004	1.350	0.300					
10/15/2012	4,750	388,208	1,025,004	0.379	-0.971					
10/16/2012	923	66,528	1,025,004	0.065	-2.735					
10/17/2012	4,437	239,583	1,025,004	0.234	-1.454					
10/18/2012	5,533	545,930	1,025,004	0.533	-0.630					
10/19/2012	587	54,101	1,025,004	0.053	-2.942					
10/20/2012	1,789	149,802	1,025,004	0.146	-1.923					
10/21/2012	5,431	553,062	1,025,004	0.540	-0.617					
10/22/2012	3,412	191,554	1,025,004	0.187	-1.677					
10/23/2012	2,692	227,889	1,025,004	0.222	-1.504					
10/24/2012	2,765	158,830	1,025,004	0.155	-1.865					
10/25/2012	4,155	244,216	1,025,004	0.238	-1.434					
10/26/2012	969	75,418	1,025,004	0.074	-2.609					
10/27/2012	2,752	272,837	1,025,004	0.266	-1.324					
10/28/2012	12,442	950,474	1,025,004	0.927	-0.075					
10/29/2012	94,173	52,105,803	1,025,004	50.835	3.929					
10/30/2012	36,841	18,095,233	1,025,004	17.654	2.871					
10/31/2012	599	314,858	1,025,004	0.307	-1.180					
11/1/2012	1,046	166,387	1,025,004	0.162	-1.818					
11/2/2012	606	83,287	1,025,004	0.081	-2.510					
11/3/2012	1,266	100,976	1,025,004	0.099	-2.318					
11/4/2012	1,762	147,862	1,025,004	0.144	-1.936					
11/5/2012	674	47,369	1,025,004	0.046	-3.074					
11/6/2012	1,181	85,266	1,025,004	0.083	-2.487					
11/7/2012	556	82,646	1,025,004	0.081	-2.518					
11/8/2012	789	111,775	1,025,004	0.109	-2.216					
11/9/2012	690	88,197	1,025,004	0.086	-2.453					
11/10/2012	5,193	940,440	1,025,004	0.917	-0.086					
11/11/2012	3,045	212,561	1,025,004	0.207	-1.573					
11/12/2012	2,586	340,970	1,025,004	0.333	-1.101					
11/13/2012	1,218	97,213	1,025,004	0.095	-2.356					
11/14/2012	978	97,328	1,025,004	0.095	-2.354					
11/15/2012	774	78,873	1,025,004	0.077	-2.565					
11/16/2012	708	69,617	1,025,004	0.068	-2.689					
11/17/2012	439	79,648	1,025,004	0.078	-2.555					
11/18/2012	767	60,895	1,025,004	0.059	-2.823					
11/19/2012	692	53,249	1,025,004	0.052	-2.957					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
11/20/2012	1,439	111,066	1,025,004	0.108	-2.222					
11/21/2012	1,508	81,215	1,025,004	0.079	-2.535					
11/22/2012	769	41,991	1,025,004	0.041	-3.195					
11/23/2012	3,207	232,029	1,025,004	0.226	-1.486					
11/24/2012	499	42,345	1,025,004	0.041	-3.187					
11/25/2012	398	63,671	1,025,004	0.062	-2.779					
11/26/2012	513	31,924	1,025,004	0.031	-3.469					
11/27/2012	1,182	75,867	1,025,004	0.074	-2.603					
11/28/2012	563	42,351	1,025,004	0.041	-3.186					
11/29/2012	5,161	333,146	1,025,004	0.325	-1.124					
11/30/2012	620	35,500	1,025,004	0.035	-3.363					
12/1/2012	535	43,436	1,025,004	0.042	-3.161					
12/2/2012	4,083	430,235	1,025,004	0.420	-0.868					
12/3/2012	5,821	362,840	1,025,004	0.354	-1.038					
12/4/2012	9,998	477,526	1,025,004	0.466	-0.764					
12/5/2012	1,381	109,340	1,025,004	0.107	-2.238					
12/6/2012	2,375	109,840	1,025,004	0.107	-2.233					
12/7/2012	789	67,135	1,025,004	0.065	-2.726					
12/8/2012	1,664	132,127	1,025,004	0.129	-2.049					
12/9/2012	369	28,125	1,025,004	0.027	-3.596					
12/10/2012	662	50,250	1,025,004	0.049	-3.015					
12/11/2012	2,049	158,166	1,025,004	0.154	-1.869					
12/12/2012	582	86,315	1,025,004	0.084	-2.474					
12/13/2012	1,835	241,260	1,025,004	0.235	-1.447					
12/14/2012	819	90,784	1,025,004	0.089	-2.424					
12/15/2012	830	41,929	1,025,004	0.041	-3.196					
12/16/2012	4,770	579,845	1,025,004	0.566	-0.570					
12/17/2012	1,001	71,897	1,025,004	0.070	-2.657					
12/18/2012	744	50,339	1,025,004	0.049	-3.014					
12/19/2012	1,607	62,626	1,025,004	0.061	-2.795					
12/20/2012	7,476	915,721	1,025,004	0.893	-0.113					
12/21/2012	6,957	694,160	1,025,004	0.677	-0.390					
12/22/2012	1,178	158,864	1,025,004	0.155	-1.864					
12/23/2012	466	34,252	1,025,004	0.033	-3.399					
12/24/2012	444	41,242	1,025,004	0.040	-3.213					
12/25/2012	230	16,533	1,025,004	0.016	-4.127					
12/26/2012	3,539	305,446	1,025,004	0.298	-1.211					
12/27/2012	773	62,613	1,025,004	0.061	-2.795					
12/28/2012	333	25,945	1,025,004	0.025	-3.676					
12/29/2012	165	35,065	1,025,004	0.034	-3.375					
12/30/2012	602	65,449	1,025,004	0.064	-2.751					
12/31/2012	896	110,850	1,025,004	0.108	-2.224					
1/1/2013	156	20,808	1,032,017	0.020	-3.904					
1/2/2013	1,096	241,122	1,032,017	0.234	-1.454					
1/3/2013	2,990	243,071	1,032,017	0.236	-1.446					
1/4/2013	611	52,461	1,032,017	0.051	-2.979					
1/5/2013	165	10,650	1,032,017	0.010	-4.574					
1/6/2013	381	25,712	1,032,017	0.025	-3.692					
1/7/2013	3,617	197,225	1,032,017	0.191	-1.655					
1/8/2013	581	26,095	1,032,017	0.025	-3.678					
1/9/2013	484	53,019	1,032,017	0.051	-2.969					
1/10/2013	115	10,184	1,032,017	0.010	-4.618					
1/11/2013	2,500	176,075	1,032,017	0.171	-1.768					
1/12/2013	2,342	342,497	1,032,017	0.332	-1.103					
1/13/2013	5,012	288,170	1,032,017	0.279	-1.276					
1/14/2013	535	64,477	1,032,017	0.062	-2.773					
1/15/2013	361	50,419	1,032,017	0.049	-3.019					
1/16/2013	3,013	106,384	1,032,017	0.103	-2.272					
1/17/2013	568	47,214	1,032,017	0.046	-3.085					
1/18/2013	7,112	134,158	1,032,017	0.130	-2.040					
1/19/2013	1,004	145,586	1,032,017	0.141	-1.959					
1/20/2013	11,121	1,634,612	1,032,017	1.584	0.460					
1/21/2013	4,829	459,037	1,032,017	0.445	-0.810					
1/22/2013	529	89,746	1,032,017	0.087	-2.442					
1/23/2013	1,488	236,941	1,032,017	0.230	-1.471					
1/24/2013	86	11,257	1,032,017	0.011	-4.518					
1/25/2013	1,119	176,264	1,032,017	0.171	-1.767					
1/26/2013	4,919	290,632	1,032,017	0.282	-1.267					
1/27/2013	2,673	224,685	1,032,017	0.218	-1.525					
1/28/2013	1,411	112,682	1,032,017	0.109	-2.215					
1/29/2013	2,271	210,705	1,032,017	0.204	-1.589					
1/30/2013	8,468	920,003	1,032,017	0.891	-0.115					
1/31/2013	3,092	335,046	1,032,017	0.325	-1.125					
2/1/2013	4,306	487,816	1,032,017	0.473	-0.749					
2/2/2013	1,205	85,986	1,032,017	0.083	-2.485					
2/3/2013	172	16,326	1,032,017	0.016	-4.147					
2/4/2013	1,784	263,125	1,032,017	0.255	-1.367					
2/5/2013	292	34,762	1,032,017	0.034	-3.391					
2/6/2013	1,893	324,184	1,032,017	0.314	-1.158					
2/7/2013	435	28,007	1,032,017	0.027	-3.607					
2/8/2013	1,056	81,103	1,032,017	0.079	-2.544					
2/9/2013	373	32,058	1,032,017	0.031	-3.472					
2/10/2013	157	20,367	1,032,017	0.020	-3.925					
2/11/2013	6,065	333,941	1,032,017	0.324	-1.128					
2/12/2013	269	22,631	1,032,017	0.022	-3.820					
2/13/2013	582	32,061	1,032,017	0.031	-3.472					
2/14/2013	84	6,230	1,032,017	0.006	-5.110					
2/15/2013	181	16,528	1,032,017	0.016	-4.134					
2/16/2013	329	24,474	1,032,017	0.024	-3.742					
2/17/2013	791	59,396	1,032,017	0.058	-2.855					
2/18/2013	273	19,160	1,032,017	0.019	-3.986					
2/19/2013	5,354	389,181	1,032,017	0.377	-0.975					
2/20/2013	125	12,529	1,032,017	0.012	-4.411					
2/21/2013	609	23,934	1,032,017	0.023	-3.764					
2/22/2013	102	8,916	1,032,017	0.009	-4.751					
2/23/2013	3,585	169,728	1,032,017	0.164	-1.805					
2/24/2013	214	20,288	1,032,017	0.020	-3.929					
2/25/2013	1,292	170,998	1,032,017	0.166	-1.798					
2/26/2013	3,280	298,130	1,032,017	0.289	-1.242					
2/27/2013	1,110	91,358	1,032,017	0.089	-2.424					
2/28/2013	431	31,085	1,032,017	0.030	-3.503					
3/1/2013	159	23,626	1,032,017	0.023	-3.777					
3/2/2013	274	57,276	1,032,017	0.055	-2.891					
3/3/2013	568	16,891	1,032,017	0.016	-4.112					
3/4/2013	320	37,641	1,032,017	0.036	-3.311					
3/5/2013	6,409	701,636	1,032,017	0.680	-0.386					
3/6/2013	1,557	342,002	1,032,017	0.331	-1.104					
3/7/2013	339	33,716	1,032,017	0.033	-3.421					

YEAR	Alpha	Beta	TMED NEW RULE
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Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
3/8/2013	108	8,328	1,032,017	0.008	-4.820					
3/9/2013	249	37,380	1,032,017	0.036	-3.318					
3/10/2013	1,610	149,268	1,032,017	0.145	-1.934					
3/11/2013	3,450	376,657	1,032,017	0.365	-1.008					
3/12/2013	614	36,196	1,032,017	0.035	-3.350					
3/13/2013	937	57,029	1,032,017	0.055	-2.896					
3/14/2013	257	23,319	1,032,017	0.023	-3.790					
3/15/2013	6,834	325,015	1,032,017	0.315	-1.155					
3/16/2013	612	74,270	1,032,017	0.072	-2.632					
3/17/2013	583	50,682	1,032,017	0.049	-3.014					
3/18/2013	1,097	66,124	1,032,017	0.064	-2.748					
3/19/2013	527	60,372	1,032,017	0.058	-2.839					
3/20/2013	4,568	154,576	1,032,017	0.150	-1.899					
3/21/2013	108	13,799	1,032,017	0.013	-4.315					
3/22/2013	250	15,853	1,032,017	0.015	-4.176					
3/23/2013	205	17,644	1,032,017	0.017	-4.069					
3/24/2013	1,564	211,839	1,032,017	0.205	-1.583					
3/25/2013	545	23,286	1,032,017	0.023	-3.791					
3/26/2013	250	25,212	1,032,017	0.024	-3.712					
3/27/2013	773	67,228	1,032,017	0.065	-2.731					
3/28/2013	14,021	326,293	1,032,017	0.316	-1.151					
3/29/2013	229	19,373	1,032,017	0.019	-3.975					
3/30/2013	907	73,529	1,032,017	0.071	-2.642					
3/31/2013	976	74,447	1,032,017	0.072	-2.629					
4/1/2013	483	46,807	1,032,017	0.045	-3.093					
4/2/2013	3,585	130,950	1,032,017	0.127	-2.064					
4/3/2013	418	34,204	1,032,017	0.033	-3.407					
4/4/2013	377	17,293	1,032,017	0.017	-4.089					
4/5/2013	1,494	424,657	1,032,017	0.411	-0.888					
4/6/2013	13,586	686,149	1,032,017	0.665	-0.408					
4/7/2013	1,867	221,924	1,032,017	0.215	-1.537					
4/8/2013	8,258	1,034,856	1,032,017	1.003	0.003					
4/9/2013	630	49,941	1,032,017	0.048	-3.028					
4/10/2013	25,238	5,030,984	1,032,017	4.875	1.584					
4/11/2013	6,539	1,106,311	1,032,017	1.072	0.070					
4/12/2013	619	69,970	1,032,017	0.068	-2.691					
4/13/2013	3,773	224,110	1,032,017	0.217	-1.527					
4/14/2013	499	59,636	1,032,017	0.058	-2.851					
4/15/2013	653	41,978	1,032,017	0.041	-3.202					
4/16/2013	403	31,232	1,032,017	0.030	-3.498					
4/17/2013	783	53,261	1,032,017	0.052	-2.964					
4/18/2013	3,452	256,099	1,032,017	0.248	-1.394					
4/19/2013	2,382	218,042	1,032,017	0.211	-1.555					
4/20/2013	625	84,988	1,032,017	0.082	-2.497					
4/21/2013	1,134	98,641	1,032,017	0.096	-2.348					
4/22/2013	393	45,661	1,032,017	0.044	-3.118					
4/23/2013	2,282	136,862	1,032,017	0.133	-2.020					
4/24/2013	2,426	150,416	1,032,017	0.146	-1.926					
4/25/2013	1,132	91,735	1,032,017	0.089	-2.420					
4/26/2013	397	26,189	1,032,017	0.025	-3.674					
4/27/2013	225	11,391	1,032,017	0.011	-4.506					
4/28/2013	663	45,344	1,032,017	0.044	-3.125					
4/29/2013	697	64,392	1,032,017	0.062	-2.774					
4/30/2013	6,260	212,958	1,032,017	0.206	-1.578					
5/1/2013	535	40,077	1,032,017	0.039	-3.248					
5/2/2013	436	46,457	1,032,017	0.045	-3.101					
5/3/2013	1,262	95,339	1,032,017	0.092	-2.382					
5/4/2013	1,920	163,078	1,032,017	0.158	-1.845					
5/5/2013	12,599	195,744	1,032,017	0.190	-1.662					
5/6/2013	2,722	172,228	1,032,017	0.167	-1.790					
5/7/2013	4,339	566,252	1,032,017	0.549	-0.600					
5/8/2013	856	82,600	1,032,017	0.080	-2.525					
5/9/2013	1,920	163,917	1,032,017	0.159	-1.840					
5/10/2013	5,199	406,093	1,032,017	0.393	-0.933					
5/11/2013	934	99,335	1,032,017	0.096	-2.341					
5/12/2013	580	61,021	1,032,017	0.059	-2.828					
5/13/2013	2,489	197,243	1,032,017	0.191	-1.655					
5/14/2013	1,005	128,394	1,032,017	0.124	-2.084					
5/15/2013	1,172	107,041	1,032,017	0.104	-2.266					
5/16/2013	7,137	268,836	1,032,017	0.260	-1.345					
5/17/2013	405	39,219	1,032,017	0.038	-3.270					
5/18/2013	869	69,022	1,032,017	0.067	-2.705					
5/19/2013	3,096	175,141	1,032,017	0.170	-1.774					
5/20/2013	1,185	78,187	1,032,017	0.076	-2.580					
5/21/2013	11,357	370,799	1,032,017	0.359	-1.024					
5/22/2013	1,163	146,284	1,032,017	0.142	-1.954					
5/23/2013	2,182	130,966	1,032,017	0.127	-2.064					
5/24/2013	1,561	48,754	1,032,017	0.047	-3.052					
5/25/2013	1,328	69,962	1,032,017	0.068	-2.691					
5/26/2013	3,028	193,837	1,032,017	0.188	-1.672					
5/27/2013	2,525	256,631	1,032,017	0.249	-1.392					
5/28/2013	5,975	624,932	1,032,017	0.606	-0.502					
5/29/2013	2,030	270,111	1,032,017	0.262	-1.340					
5/30/2013	2,041	206,817	1,032,017	0.200	-1.607					
5/31/2013	7,693	824,614	1,032,017	0.799	-0.224					
6/1/2013	2,991	224,889	1,032,017	0.218	-1.524					
6/2/2013	6,715	341,478	1,032,017	0.331	-1.106					
6/3/2013	1,137	104,046	1,032,017	0.101	-2.294					
6/4/2013	2,369	334,001	1,032,017	0.324	-1.128					
6/5/2013	1,062	80,601	1,032,017	0.078	-2.550					
6/6/2013	5,679	238,657	1,032,017	0.231	-1.464					
6/7/2013	2,151	175,566	1,032,017	0.170	-1.771					
6/8/2013	1,100	79,779	1,032,017	0.077	-2.560					
6/9/2013	3,613	552,058	1,032,017	0.535	-0.626					
6/10/2013	6,494	402,711	1,032,017	0.390	-0.941					
6/11/2013	2,135	215,525	1,032,017	0.209	-1.566					
6/12/2013	1,209	165,460	1,032,017	0.160	-1.831					
6/13/2013	18,186	2,518,359	1,032,017	2.440	0.892					
6/14/2013	1,475	123,276	1,032,017	0.119	-2.125					
6/15/2013	1,134	80,632	1,032,017	0.078	-2.549					
6/16/2013	1,212	158,303	1,032,017	0.153	-1.875					
6/17/2013	2,185	143,195	1,032,017	0.139	-1.975					
6/18/2013	4,128	256,832	1,032,017	0.249	-1.391					
6/19/2013	1,469	111,848	1,032,017	0.108	-2.222					
6/20/2013	2,520	147,131	1,032,017	0.143	-1.948					
6/21/2013	3,763	297,632	1,032,017	0.288	-1.243					
6/22/2013	2,434	223,645	1,032,017	0.217	-1.529					
6/23/2013	1,545	148,859	1,032,017	0.144	-1.936					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
6/24/2013	1,268	144,317	1,032,017	0.140	-1.967					
6/25/2013	38,643	12,282,552	1,032,017	11.902	2.477					
6/26/2013	4,985	848,339	1,032,017	0.822	-0.196					
6/27/2013	3,239	278,175	1,032,017	0.270	-1.311					
6/28/2013	10,757	1,658,274	1,032,017	1.607	0.474					
6/29/2013	7,631	1,073,981	1,032,017	1.041	0.040					
6/30/2013	1,565	139,395	1,032,017	0.135	-2.002					
7/1/2013	2,329	208,721	1,032,017	0.202	-1.598					
7/2/2013	1,253	145,836	1,032,017	0.141	-1.957					
7/3/2013	2,888	105,431	1,032,017	0.102	-2.281					
7/4/2013	11,406	344,287	1,032,017	0.334	-1.098					
7/5/2013	1,365	191,006	1,032,017	0.185	-1.687					
7/6/2013	2,448	348,585	1,032,017	0.338	-1.085					
7/7/2013	2,106	246,434	1,032,017	0.239	-1.432					
7/8/2013	10,701	1,155,048	1,032,017	1.119	0.113					
7/9/2013	5,434	594,890	1,032,017	0.576	-0.551					
7/10/2013	63,696	26,871,479	1,032,017	26.038	3.260					
7/11/2013	7,377	767,698	1,032,017	0.744	-0.296					
7/12/2013	835	108,719	1,032,017	0.105	-2.251					
7/13/2013	2,019	152,276	1,032,017	0.148	-1.914					
7/14/2013	1,655	177,340	1,032,017	0.172	-1.761					
7/15/2013	6,454	642,140	1,032,017	0.622	-0.474					
7/16/2013	2,122	164,605	1,032,017	0.159	-1.836					
7/17/2013	3,267	279,388	1,032,017	0.271	-1.307					
7/18/2013	3,573	411,912	1,032,017	0.399	-0.918					
7/19/2013	6,286	739,561	1,032,017	0.717	-0.333					
7/20/2013	5,059	1,097,197	1,032,017	1.063	0.061					
7/21/2013	2,596	385,314	1,032,017	0.373	-0.985					
7/22/2013	1,969	233,200	1,032,017	0.226	-1.487					
7/23/2013	7,914	458,563	1,032,017	0.444	-0.811					
7/24/2013	984	117,887	1,032,017	0.114	-2.170					
7/25/2013	4,550	502,714	1,032,017	0.487	-0.719					
7/26/2013	3,415	195,309	1,032,017	0.189	-1.665					
7/27/2013	2,744	243,993	1,032,017	0.236	-1.442					
7/28/2013	809	72,919	1,032,017	0.071	-2.650					
7/29/2013	879	85,237	1,032,017	0.083	-2.494					
7/30/2013	519	58,559	1,032,017	0.057	-2.869					
7/31/2013	2,033	173,297	1,032,017	0.168	-1.784					
8/1/2013	6,684	312,244	1,032,017	0.303	-1.195					
8/2/2013	715	224,148	1,032,017	0.217	-1.527					
8/3/2013	843	80,324	1,032,017	0.078	-2.553					
8/4/2013	2,701	157,063	1,032,017	0.152	-1.883					
8/5/2013	833	81,991	1,032,017	0.079	-2.533					
8/6/2013	746	54,821	1,032,017	0.053	-2.935					
8/7/2013	3,774	437,476	1,032,017	0.424	-0.858					
8/8/2013	4,466	283,632	1,032,017	0.275	-1.292					
8/9/2013	3,291	521,172	1,032,017	0.505	-0.683					
8/10/2013	1,142	107,493	1,032,017	0.104	-2.262					
8/11/2013	386	24,964	1,032,017	0.024	-3.722					
8/12/2013	558	54,109	1,032,017	0.052	-2.948					
8/13/2013	1,402	135,687	1,032,017	0.131	-2.029					
8/14/2013	715	91,395	1,032,017	0.089	-2.424					
8/15/2013	1,578	90,597	1,032,017	0.088	-2.433					
8/16/2013	731	74,874	1,032,017	0.073	-2.623					
8/17/2013	1,304	215,989	1,032,017	0.209	-1.564					
8/18/2013	434	27,134	1,032,017	0.026	-3.638					
8/19/2013	1,519	122,658	1,032,017	0.119	-2.130					
8/20/2013	1,023	116,684	1,032,017	0.113	-2.180					
8/21/2013	5,870	537,425	1,032,017	0.521	-0.652					
8/22/2013	1,071	159,698	1,032,017	0.155	-1.866					
8/23/2013	1,180	149,925	1,032,017	0.145	-1.929					
8/24/2013	1,422	174,880	1,032,017	0.169	-1.775					
8/25/2013	569	69,470	1,032,017	0.067	-2.698					
8/26/2013	817	131,148	1,032,017	0.127	-2.063					
8/27/2013	8,653	912,890	1,032,017	0.885	-0.123					
8/28/2013	1,917	256,551	1,032,017	0.249	-1.392					
8/29/2013	335	33,264	1,032,017	0.032	-3.435					
8/30/2013	3,715	237,030	1,032,017	0.230	-1.471					
8/31/2013	1,710	245,807	1,032,017	0.238	-1.435					
9/1/2013	1,065	75,210	1,032,017	0.073	-2.619					
9/2/2013	1,330	128,100	1,032,017	0.124	-2.086					
9/3/2013	1,144	101,149	1,032,017	0.098	-2.323					
9/4/2013	7,792	743,746	1,032,017	0.721	-0.328					
9/5/2013	4,480	370,653	1,032,017	0.359	-1.024					
9/6/2013	3,303	322,280	1,032,017	0.312	-1.164					
9/7/2013	631	42,708	1,032,017	0.041	-3.185					
9/8/2013	1,931	149,460	1,032,017	0.145	-1.932					
9/9/2013	14,663	985,696	1,032,017	0.955	-0.046					
9/10/2013	17,443	974,701	1,032,017	0.944	-0.057					
9/11/2013	1,736	217,233	1,032,017	0.210	-1.558					
9/12/2013	3,082	349,276	1,032,017	0.338	-1.083					
9/13/2013	2,619	263,654	1,032,017	0.255	-1.365					
9/14/2013	993	97,865	1,032,017	0.095	-2.356					
9/15/2013	1,937	148,060	1,032,017	0.143	-1.942					
9/16/2013	1,999	148,617	1,032,017	0.144	-1.938					
9/17/2013	505	43,548	1,032,017	0.042	-3.165					
9/18/2013	882	69,736	1,032,017	0.068	-2.695					
9/19/2013	2,108	267,560	1,032,017	0.259	-1.350					
9/20/2013	1,580	157,748	1,032,017	0.153	-1.878					
9/21/2013	6,153	506,129	1,032,017	0.490	-0.712					
9/22/2013	735	75,806	1,032,017	0.073	-2.611					
9/23/2013	1,225	187,888	1,032,017	0.182	-1.703					
9/24/2013	513	48,979	1,032,017	0.047	-3.048					
9/25/2013	1,329	134,624	1,032,017	0.130	-2.037					
9/26/2013	2,667	243,865	1,032,017	0.236	-1.443					
9/27/2013	1,153	148,114	1,032,017	0.144	-1.941					
9/28/2013	344	27,272	1,032,017	0.026	-3.633					
9/29/2013	2,553	157,489	1,032,017	0.153	-1.880					
9/30/2013	5,717	549,888	1,032,017	0.533	-0.630					
10/1/2013	2,570	141,275	1,032,017	0.137	-1.989					
10/2/2013	2,739	327,149	1,032,017	0.317	-1.149					
10/3/2013	2,839	212,335	1,032,017	0.206	-1.581					
10/4/2013	712	72,487	1,032,017	0.070	-2.656					
10/5/2013	9,866	765,462	1,032,017	0.742	-0.299					
10/6/2013	5,028	480,692	1,032,017	0.466	-0.764					
10/7/2013	4,553	186,756	1,032,017	0.181	-1.709					
10/8/2013	679	60,119	1,032,017	0.058	-2.843					
10/9/2013	939	91,232	1,032,017	0.088	-2.426					

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Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
10/10/2013	451	33,161	1,032,017	0.032	-3.438					
10/11/2013	869	54,056	1,032,017	0.052	-2.949					
10/12/2013	797	61,593	1,032,017	0.060	-2.819					
10/13/2013	2,082	122,738	1,032,017	0.119	-2.129					
10/14/2013	1,760	125,805	1,032,017	0.122	-2.105					
10/15/2013	1,704	166,333	1,032,017	0.161	-1.825					
10/16/2013	4,664	457,183	1,032,017	0.443	-0.814					
10/17/2013	774	112,306	1,032,017	0.109	-2.218					
10/18/2013	783	89,711	1,032,017	0.087	-2.443					
10/19/2013	350	18,668	1,032,017	0.018	-4.012					
10/20/2013	1,096	69,747	1,032,017	0.068	-2.694					
10/21/2013	784	92,235	1,032,017	0.089	-2.415					
10/22/2013	1,545	126,599	1,032,017	0.123	-2.098					
10/23/2013	2,068	133,063	1,032,017	0.129	-2.048					
10/24/2013	2,759	294,077	1,032,017	0.285	-1.255					
10/25/2013	1,198	79,810	1,032,017	0.077	-2.560					
10/26/2013	834	60,177	1,032,017	0.058	-2.842					
10/27/2013	572	38,102	1,032,017	0.037	-3.299					
10/28/2013	1,172	91,983	1,032,017	0.089	-2.418					
10/29/2013	544	31,049	1,032,017	0.030	-3.504					
10/30/2013	1,307	135,247	1,032,017	0.131	-2.032					
10/31/2013	15,480	1,787,674	1,032,017	1.732	0.549					
11/1/2013	11,617	2,839,374	1,032,017	2.751	1.012					
11/2/2013	1,875	134,704	1,032,017	0.131	-2.036					
11/3/2013	1,838	213,934	1,032,017	0.207	-1.574					
11/4/2013	982	42,520	1,032,017	0.041	-3.189					
11/5/2013	1,323	90,969	1,032,017	0.088	-2.429					
11/6/2013	1,038	94,993	1,032,017	0.092	-2.385					
11/7/2013	3,342	269,544	1,032,017	0.261	-1.343					
11/8/2013	933	79,959	1,032,017	0.077	-2.558					
11/9/2013	775	62,472	1,032,017	0.061	-2.805					
11/10/2013	2,084	177,638	1,032,017	0.172	-1.760					
11/11/2013	1,172	73,376	1,032,017	0.071	-2.644					
11/12/2013	554	55,434	1,032,017	0.054	-2.924					
11/13/2013	1,050	91,337	1,032,017	0.089	-2.425					
11/14/2013	626	53,001	1,032,017	0.051	-2.969					
11/15/2013	2,406	121,179	1,032,017	0.117	-2.142					
11/16/2013	506	51,326	1,032,017	0.050	-3.001					
11/17/2013	29,077	6,839,155	1,032,017	6.627	1.891					
11/18/2013	3,609	592,118	1,032,017	0.574	-0.556					
11/19/2013	800	53,213	1,032,017	0.052	-2.965					
11/20/2013	1,163	68,810	1,032,017	0.067	-2.708					
11/21/2013	4,204	274,472	1,032,017	0.266	-1.324					
11/22/2013	1,132	123,409	1,032,017	0.120	-2.124					
11/23/2013	1,116	123,236	1,032,017	0.119	-2.125					
11/24/2013	608	69,889	1,032,017	0.068	-2.692					
11/25/2013	1,425	117,356	1,032,017	0.114	-2.174					
11/26/2013	5,955	746,215	1,032,017	0.723	-0.324					
11/27/2013	4,952	597,466	1,032,017	0.579	-0.547					
11/28/2013	1,423	159,850	1,032,017	0.155	-1.865					
11/29/2013	1,729	125,062	1,032,017	0.121	-2.110					
11/30/2013	463	63,536	1,032,017	0.062	-2.788					
12/1/2013	2,278	186,791	1,032,017	0.181	-1.709					
12/2/2013	1,810	150,240	1,032,017	0.146	-1.927					
12/3/2013	472	61,203	1,032,017	0.059	-2.825					
12/4/2013	1,277	113,900	1,032,017	0.110	-2.204					
12/5/2013	537	73,366	1,032,017	0.071	-2.644					
12/6/2013	937	153,801	1,032,017	0.149	-1.904					
12/7/2013	404	58,518	1,032,017	0.057	-2.870					
12/8/2013	253	59,083	1,032,017	0.057	-2.860					
12/9/2013	101	8,348	1,032,017	0.008	-4.817					
12/10/2013	543	55,577	1,032,017	0.054	-2.922					
12/11/2013	756	47,182	1,032,017	0.046	-3.085					
12/12/2013	2,581	317,711	1,032,017	0.308	-1.178					
12/13/2013	534	84,375	1,032,017	0.082	-2.504					
12/14/2013	1,044	158,274	1,032,017	0.153	-1.875					
12/15/2013	2,024	117,173	1,032,017	0.114	-2.176					
12/16/2013	738	85,898	1,032,017	0.083	-2.486					
12/17/2013	3,499	173,041	1,032,017	0.168	-1.786					
12/18/2013	277	28,919	1,032,017	0.028	-3.575					
12/19/2013	936	123,475	1,032,017	0.120	-2.123					
12/20/2013	2,055	204,604	1,032,017	0.198	-1.618					
12/21/2013	6,528	803,245	1,032,017	0.778	-0.251					
12/22/2013	16,992	1,586,667	1,032,017	1.537	0.430					
12/23/2013	921	39,410	1,032,017	0.038	-3.265					
12/24/2013	2,579	211,250	1,032,017	0.205	-1.586					
12/25/2013	997	173,879	1,032,017	0.168	-1.781					
12/26/2013	530	35,153	1,032,017	0.034	-3.380					
12/27/2013	1,002	237,806	1,032,017	0.230	-1.468					
12/28/2013	615	45,711	1,032,017	0.044	-3.117					
12/29/2013	5,288	367,469	1,032,017	0.356	-1.033					
12/30/2013	114	10,751	1,032,017	0.010	-4.564					
12/31/2013	441	40,786	1,032,017	0.040	-3.231					
1/1/2014	604	63,397	1,028,965	0.062	-2.787					
1/2/2014	1,113	221,515	1,028,965	0.215	-1.536					
1/3/2014	4,721	411,712	1,028,965	0.400	-0.916					
1/4/2014	86	18,523	1,028,965	0.018	-4.017					
1/5/2014	2,523	109,965	1,028,965	0.107	-2.236					
1/6/2014	23,162	3,162,379	1,028,965	3.073	1.123					
1/7/2014	10,151	1,830,171	1,028,965	1.779	0.576					
1/8/2014	7,380	1,102,705	1,028,965	1.072	0.069					
1/9/2014	127	10,540	1,028,965	0.010	-4.581					
1/10/2014	2,655	126,299	1,028,965	0.123	-2.098					
1/11/2014	2,830	228,803	1,028,965	0.222	-1.503					
1/12/2014	330	23,610	1,028,965	0.023	-3.775					
1/13/2014	631	54,451	1,028,965	0.053	-2.939					
1/14/2014	374	41,115	1,028,965	0.040	-3.220					
1/15/2014	259	20,923	1,028,965	0.020	-3.895					
1/16/2014	2,613	81,322	1,028,965	0.079	-2.538					
1/17/2014	975	56,521	1,028,965	0.055	-2.902					
1/18/2014	33,015	1,436,864	1,028,965	1.396	0.334					
1/19/2014	111	13,984	1,028,965	0.014	-4.298					
1/20/2014	406	29,673	1,028,965	0.029	-3.546					
1/21/2014	389	51,535	1,028,965	0.050	-2.994					
1/22/2014	11,379	700,002	1,028,965	0.680	-0.385					
1/23/2014	719	59,792	1,028,965	0.058	-2.845					
1/24/2014	1,870	115,661	1,028,965	0.112	-2.186					
1/25/2014	416	68,156	1,028,965	0.066	-2.715					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
1/26/2014	220	26,471	1,028,965	0.026	-3.660					
1/27/2014	1,504	152,688	1,028,965	0.148	-1.908					
1/28/2014	14,054	1,047,133	1,028,965	1.018	0.018					
1/29/2014	790	80,685	1,028,965	0.078	-2.546					
1/30/2014	202	19,779	1,028,965	0.019	-3.952					
1/31/2014	265	21,672	1,028,965	0.021	-3.860					
2/1/2014	5,396	967,592	1,028,965	0.940	-0.061					
2/2/2014	903	130,110	1,028,965	0.126	-2.068					
2/3/2014	773	58,704	1,028,965	0.057	-2.864					
2/4/2014	526	27,317	1,028,965	0.027	-3.629					
2/5/2014	913	84,442	1,028,965	0.082	-2.500					
2/6/2014	363	60,220	1,028,965	0.059	-2.838					
2/7/2014	667	84,372	1,028,965	0.082	-2.501					
2/8/2014	790	149,054	1,028,965	0.145	-1.932					
2/9/2014	1,828	185,706	1,028,965	0.180	-1.712					
2/10/2014	172	13,459	1,028,965	0.013	-4.337					
2/11/2014	1,373	116,407	1,028,965	0.113	-2.179					
2/12/2014	7,757	159,023	1,028,965	0.155	-1.867					
2/13/2014	1,502	249,299	1,028,965	0.242	-1.418					
2/14/2014	1,141	91,268	1,028,965	0.089	-2.423					
2/15/2014	11,954	242,645	1,028,965	0.236	-1.445					
2/16/2014	414	45,775	1,028,965	0.044	-3.113					
2/17/2014	7,757	504,312	1,028,965	0.490	-0.713					
2/18/2014	5,777	754,551	1,028,965	0.733	-0.310					
2/19/2014	1,447	139,079	1,028,965	0.135	-2.001					
2/20/2014	2,481	302,959	1,028,965	0.294	-1.223					
2/21/2014	6,071	414,669	1,028,965	0.403	-0.909					
2/22/2014	111	8,406	1,028,965	0.008	-4.807					
2/23/2014	484	28,059	1,028,965	0.027	-3.602					
2/24/2014	257	23,775	1,028,965	0.023	-3.768					
2/25/2014	527	59,596	1,028,965	0.058	-2.849					
2/26/2014	140	11,674	1,028,965	0.011	-4.479					
2/27/2014	456	56,387	1,028,965	0.055	-2.904					
2/28/2014	4,016	579,957	1,028,965	0.564	-0.573					
3/1/2014	245	14,753	1,028,965	0.014	-4.245					
3/2/2014	114	11,701	1,028,965	0.011	-4.477					
3/3/2014	982	175,247	1,028,965	0.170	-1.770					
3/4/2014	933	102,899	1,028,965	0.100	-2.303					
3/5/2014	702	52,351	1,028,965	0.051	-2.978					
3/6/2014	399	43,018	1,028,965	0.042	-3.175					
3/7/2014	4,240	140,452	1,028,965	0.136	-1.991					
3/8/2014	173	16,500	1,028,965	0.016	-4.133					
3/9/2014	3,937	287,624	1,028,965	0.280	-1.275					
3/10/2014	335	30,465	1,028,965	0.030	-3.520					
3/11/2014	597	68,388	1,028,965	0.066	-2.711					
3/12/2014	21,858	3,192,739	1,028,965	3.103	1.132					
3/13/2014	275	25,735	1,028,965	0.025	-3.688					
3/14/2014	831	70,913	1,028,965	0.069	-2.675					
3/15/2014	394	47,557	1,028,965	0.046	-3.074					
3/16/2014	248	32,089	1,028,965	0.031	-3.468					
3/17/2014	363	26,464	1,028,965	0.026	-3.661					
3/18/2014	436	33,060	1,028,965	0.032	-3.438					
3/19/2014	4,043	585,382	1,028,965	0.569	-0.564					
3/20/2014	420	52,901	1,028,965	0.051	-2.968					
3/21/2014	128	15,544	1,028,965	0.015	-4.193					
3/22/2014	1,002	101,408	1,028,965	0.099	-2.317					
3/23/2014	149	21,286	1,028,965	0.021	-3.878					
3/24/2014	2,927	273,518	1,028,965	0.266	-1.325					
3/25/2014	3,915	433,679	1,028,965	0.421	-0.864					
3/26/2014	238	40,014	1,028,965	0.039	-3.247					
3/27/2014	429	44,089	1,028,965	0.043	-3.150					
3/28/2014	3,521	448,466	1,028,965	0.436	-0.830					
3/29/2014	2,106	233,787	1,028,965	0.227	-1.482					
3/30/2014	8,377	695,757	1,028,965	0.676	-0.391					
3/31/2014	1,342	148,459	1,028,965	0.144	-1.936					
4/1/2014	8,116	871,623	1,028,965	0.847	-0.166					
4/2/2014	10,844	1,054,030	1,028,965	1.024	0.024					
4/3/2014	1,083	147,412	1,028,965	0.143	-1.943					
4/4/2014	9,652	3,274,632	1,028,965	3.182	1.158					
4/5/2014	12,183	691,593	1,028,965	0.672	-0.397					
4/6/2014	3,844	286,152	1,028,965	0.278	-1.280					
4/7/2014	7,410	1,237,297	1,028,965	1.202	0.184					
4/8/2014	1,125	137,835	1,028,965	0.134	-2.010					
4/9/2014	348	34,178	1,028,965	0.033	-3.405					
4/10/2014	2,831	337,446	1,028,965	0.328	-1.115					
4/11/2014	3,419	232,714	1,028,965	0.226	-1.486					
4/12/2014	2,249	193,656	1,028,965	0.188	-1.670					
4/13/2014	1,924	215,069	1,028,965	0.209	-1.565					
4/14/2014	5,314	325,424	1,028,965	0.316	-1.151					
4/15/2014	387	27,570	1,028,965	0.027	-3.620					
4/16/2014	532	45,264	1,028,965	0.044	-3.124					
4/17/2014	431	36,866	1,028,965	0.036	-3.329					
4/18/2014	243	22,188	1,028,965	0.022	-3.837					
4/19/2014	616	32,276	1,028,965	0.031	-3.462					
4/20/2014	2,342	129,517	1,028,965	0.126	-2.072					
4/21/2014	412	36,833	1,028,965	0.036	-3.330					
4/22/2014	2,152	251,525	1,028,965	0.244	-1.409					
4/23/2014	492	52,270	1,028,965	0.051	-2.980					
4/24/2014	409	43,642	1,028,965	0.042	-3.160					
4/25/2014	1,372	148,512	1,028,965	0.144	-1.936					
4/26/2014	307	36,690	1,028,965	0.036	-3.334					
4/27/2014	348	37,065	1,028,965	0.036	-3.324					
4/28/2014	4,168	710,729	1,028,965	0.691	-0.370					
4/29/2014	24,008	1,425,348	1,028,965	1.385	0.326					
4/30/2014	1,733	180,025	1,028,965	0.175	-1.743					
5/1/2014	516	51,939	1,028,965	0.050	-2.986					
5/2/2014	220	10,515	1,028,965	0.010	-4.584					
5/3/2014	2,297	126,632	1,028,965	0.123	-2.095					
5/4/2014	886	77,572	1,028,965	0.075	-2.585					
5/5/2014	761	64,257	1,028,965	0.062	-2.773					
5/6/2014	1,451	105,850	1,028,965	0.103	-2.274					
5/7/2014	1,708	242,128	1,028,965	0.235	-1.447					
5/8/2014	12,338	550,403	1,028,965	0.535	-0.626					
5/9/2014	3,683	397,932	1,028,965	0.387	-0.950					
5/10/2014	952	95,405	1,028,965	0.093	-2.378					
5/11/2014	4,767	489,869	1,028,965	0.476	-0.742					
5/12/2014	17,286	3,547,735	1,028,965	3.448	1.238					
5/13/2014	5,686	730,552	1,028,965	0.710	-0.343					

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5/14/2014	15,312	582,984	1,028,965	0.567	-0.568					
5/15/2014	13,203	1,266,505	1,028,965	1.231	0.208					
5/16/2014	504	31,900	1,028,965	0.031	-3.474					
5/17/2014	2,942	229,670	1,028,965	0.223	-1.500					
5/18/2014	2,509	214,441	1,028,965	0.208	-1.568					
5/19/2014	327	40,378	1,028,965	0.039	-3.238					
5/20/2014	1,551	181,197	1,028,965	0.176	-1.737					
5/21/2014	1,508	224,606	1,028,965	0.218	-1.522					
5/22/2014	1,244	211,124	1,028,965	0.205	-1.584					
5/23/2014	582	113,479	1,028,965	0.110	-2.205					
5/24/2014	406	41,196	1,028,965	0.040	-3.218					
5/25/2014	3,284	316,994	1,028,965	0.308	-1.177					
5/26/2014	1,656	150,324	1,028,965	0.146	-1.924					
5/27/2014	18,689	1,653,072	1,028,965	1.607	0.474					
5/28/2014	12,117	319,959	1,028,965	0.311	-1.168					
5/29/2014	947	161,408	1,028,965	0.157	-1.852					
5/30/2014	420	39,759	1,028,965	0.039	-3.253					
5/31/2014	2,033	263,849	1,028,965	0.256	-1.361					
6/1/2014	925	128,737	1,028,965	0.125	-2.079					
6/2/2014	1,264	158,540	1,028,965	0.154	-1.870					
6/3/2014	2,865	286,590	1,028,965	0.279	-1.278					
6/4/2014	1,184	108,626	1,028,965	0.106	-2.248					
6/5/2014	1,336	120,683	1,028,965	0.117	-2.143					
6/6/2014	1,466	121,003	1,028,965	0.118	-2.140					
6/7/2014	1,310	198,838	1,028,965	0.193	-1.644					
6/8/2014	3,457	455,811	1,028,965	0.443	-0.814					
6/9/2014	586	52,183	1,028,965	0.051	-2.982					
6/10/2014	499	39,030	1,028,965	0.038	-3.272					
6/11/2014	4,917	1,895,181	1,028,965	1.842	0.611					
6/12/2014	1,496	266,312	1,028,965	0.259	-1.352					
6/13/2014	3,444	280,549	1,028,965	0.273	-1.300					
6/14/2014	1,027	83,880	1,028,965	0.082	-2.507					
6/15/2014	2,039	132,984	1,028,965	0.129	-2.046					
6/16/2014	7,987	937,330	1,028,965	0.911	-0.093					
6/17/2014	5,907	460,592	1,028,965	0.448	-0.804					
6/18/2014	28,139	9,052,981	1,028,965	8.798	2.175					
6/19/2014	4,757	872,712	1,028,965	0.848	-0.165					
6/20/2014	1,244	108,832	1,028,965	0.106	-2.247					
6/21/2014	1,031	91,523	1,028,965	0.089	-2.420					
6/22/2014	782	102,067	1,028,965	0.099	-2.311					
6/23/2014	2,748	462,034	1,028,965	0.449	-0.801					
6/24/2014	3,949	521,350	1,028,965	0.507	-0.680					
6/25/2014	1,664	195,667	1,028,965	0.190	-1.660					
6/26/2014	1,386	136,930	1,028,965	0.133	-2.017					
6/27/2014	3,525	102,382	1,028,965	0.099	-2.308					
6/28/2014	22,760	1,391,864	1,028,965	1.353	0.302					
6/29/2014	5,123	827,651	1,028,965	0.804	-0.218					
6/30/2014	1,062	130,139	1,028,965	0.126	-2.068					
7/1/2014	6,656	489,776	1,028,965	0.476	-0.742					
7/2/2014	2,901	315,892	1,028,965	0.307	-1.181					
7/3/2014	1,425	182,376	1,028,965	0.177	-1.730					
7/4/2014	845	85,671	1,028,965	0.083	-2.486					
7/5/2014	642	57,071	1,028,965	0.055	-2.892					
7/6/2014	1,201	116,422	1,028,965	0.113	-2.179					
7/7/2014	2,835	208,322	1,028,965	0.202	-1.597					
7/8/2014	16,885	2,067,579	1,028,965	2.009	0.698					
7/9/2014	4,975	727,928	1,028,965	0.707	-0.346					
7/10/2014	450	42,532	1,028,965	0.041	-3.186					
7/11/2014	1,428	159,879	1,028,965	0.155	-1.862					
7/12/2014	838	72,902	1,028,965	0.071	-2.647					
7/13/2014	2,764	413,511	1,028,965	0.402	-0.912					
7/14/2014	6,029	567,312	1,028,965	0.551	-0.595					
7/15/2014	627	75,753	1,028,965	0.074	-2.609					
7/16/2014	645	111,968	1,028,965	0.109	-2.218					
7/17/2014	777	83,431	1,028,965	0.081	-2.512					
7/18/2014	730	74,239	1,028,965	0.072	-2.629					
7/19/2014	6,861	547,772	1,028,965	0.532	-0.630					
7/20/2014	3,115	281,774	1,028,965	0.274	-1.295					
7/21/2014	1,296	253,491	1,028,965	0.246	-1.401					
7/22/2014	2,364	264,832	1,028,965	0.257	-1.357					
7/23/2014	1,714	249,287	1,028,965	0.242	-1.418					
7/24/2014	1,607	175,325	1,028,965	0.170	-1.770					
7/25/2014	322	26,969	1,028,965	0.026	-3.642					
7/26/2014	5,126	742,728	1,028,965	0.722	-0.326					
7/27/2014	5,992	1,160,524	1,028,965	1.128	0.120					
7/28/2014	4,157	556,764	1,028,965	0.541	-0.614					
7/29/2014	375	56,047	1,028,965	0.054	-2.910					
7/30/2014	2,062	465,322	1,028,965	0.452	-0.794					
7/31/2014	1,851	146,461	1,028,965	0.142	-1.950					
8/1/2014	1,236	129,695	1,028,965	0.126	-2.071					
8/2/2014	3,496	470,883	1,028,965	0.458	-0.782					
8/3/2014	964	95,023	1,028,965	0.092	-2.382					
8/4/2014	1,502	122,485	1,028,965	0.119	-2.128					
8/5/2014	10,550	1,382,323	1,028,965	1.343	0.295					
8/6/2014	3,516	425,552	1,028,965	0.414	-0.883					
8/7/2014	318	23,970	1,028,965	0.023	-3.760					
8/8/2014	8,419	172,019	1,028,965	0.167	-1.789					
8/9/2014	451	54,769	1,028,965	0.053	-2.933					
8/10/2014	1,005	146,777	1,028,965	0.143	-1.947					
8/11/2014	3,400	428,101	1,028,965	0.416	-0.877					
8/12/2014	2,886	265,981	1,028,965	0.258	-1.353					
8/13/2014	413	49,296	1,028,965	0.048	-3.038					
8/14/2014	599	93,791	1,028,965	0.091	-2.395					
8/15/2014	462	45,398	1,028,965	0.044	-3.121					
8/16/2014	506	58,002	1,028,965	0.056	-2.876					
8/17/2014	589	64,407	1,028,965	0.063	-2.771					
8/18/2014	2,009	130,696	1,028,965	0.127	-2.063					
8/19/2014	2,732	305,247	1,028,965	0.297	-1.215					
8/20/2014	4,616	503,837	1,028,965	0.490	-0.714					
8/21/2014	1,498	204,698	1,028,965	0.199	-1.615					
8/22/2014	1,384	157,698	1,028,965	0.153	-1.876					
8/23/2014	664	62,199	1,028,965	0.060	-2.806					
8/24/2014	2,941	294,627	1,028,965	0.286	-1.251					
8/25/2014	2,902	327,129	1,028,965	0.318	-1.146					
8/26/2014	2,748	217,745	1,028,965	0.212	-1.553					
8/27/2014	984	111,785	1,028,965	0.109	-2.220					
8/28/2014	606	65,326	1,028,965	0.063	-2.757					
8/29/2014	8,306	234,632	1,028,965	0.228	-1.478					

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
8/30/2014	542	51,801	1,028,965	0.050	-2.989					
8/31/2014	1,242	212,930	1,028,965	0.207	-1.575					
9/1/2014	584	71,651	1,028,965	0.070	-2.665					
9/2/2014	694	76,932	1,028,965	0.075	-2.593					
9/3/2014	686	130,997	1,028,965	0.127	-2.061					
9/4/2014	981	121,207	1,028,965	0.118	-2.139					
9/5/2014	3,823	442,360	1,028,965	0.430	-0.844					
9/6/2014	1,225	229,948	1,028,965	0.223	-1.498					
9/7/2014	3,522	384,209	1,028,965	0.373	-0.985					
9/8/2014	1,437	270,405	1,028,965	0.263	-1.336					
9/9/2014	1,988	372,114	1,028,965	0.362	-1.017					
9/10/2014	5,315	514,386	1,028,965	0.500	-0.693					
9/11/2014	3,359	446,980	1,028,965	0.434	-0.834					
9/12/2014	639	53,287	1,028,965	0.052	-2.961					
9/13/2014	789	107,619	1,028,965	0.105	-2.258					
9/14/2014	1,305	114,896	1,028,965	0.112	-2.192					
9/15/2014	3,056	271,393	1,028,965	0.264	-1.333					
9/16/2014	1,598	125,446	1,028,965	0.122	-2.104					
9/17/2014	435	63,496	1,028,965	0.062	-2.785					
9/18/2014	2,667	370,696	1,028,965	0.360	-1.021					
9/19/2014	506	35,135	1,028,965	0.034	-3.377					
9/20/2014	474	53,839	1,028,965	0.052	-2.950					
9/21/2014	5,548	772,207	1,028,965	0.750	-0.287					
9/22/2014	940	65,119	1,028,965	0.063	-2.760					
9/23/2014	2,315	234,266	1,028,965	0.228	-1.480					
9/24/2014	438	34,616	1,028,965	0.034	-3.392					
9/25/2014	387	39,773	1,028,965	0.039	-3.253					
9/26/2014	234	28,675	1,028,965	0.028	-3.580					
9/27/2014	1,772	165,543	1,028,965	0.161	-1.827					
9/28/2014	5,073	227,127	1,028,965	0.221	-1.511					
9/29/2014	3,067	243,200	1,028,965	0.236	-1.442					
9/30/2014	3,257	184,252	1,028,965	0.179	-1.720					
10/1/2014	154	9,409	1,028,965	0.009	-4.695					
10/2/2014	2,236	228,245	1,028,965	0.222	-1.506					
10/3/2014	4,564	425,054	1,028,965	0.413	-0.884					
10/4/2014	2,150	199,395	1,028,965	0.194	-1.641					
10/5/2014	1,068	115,348	1,028,965	0.112	-2.188					
10/6/2014	2,062	166,535	1,028,965	0.162	-1.821					
10/7/2014	1,016	137,342	1,028,965	0.133	-2.014					
10/8/2014	5,708	354,434	1,028,965	0.344	-1.066					
10/9/2014	936	67,625	1,028,965	0.066	-2.722					
10/10/2014	314	38,815	1,028,965	0.038	-3.278					
10/11/2014	6,363	689,125	1,028,965	0.670	-0.401					
10/12/2014	8,346	957,542	1,028,965	0.931	-0.072					
10/13/2014	855	68,868	1,028,965	0.067	-2.704					
10/14/2014	5,550	680,894	1,028,965	0.662	-0.413					
10/15/2014	1,091	119,003	1,028,965	0.116	-2.157					
10/16/2014	864	76,179	1,028,965	0.074	-2.603					
10/17/2014	1,059	142,142	1,028,965	0.138	-1.979					
10/18/2014	594	63,327	1,028,965	0.062	-2.788					
10/19/2014	759	72,982	1,028,965	0.071	-2.646					
10/20/2014	2,530	178,667	1,028,965	0.174	-1.751					
10/21/2014	2,715	225,541	1,028,965	0.219	-1.518					
10/22/2014	1,687	112,537	1,028,965	0.109	-2.213					
10/23/2014	553	52,242	1,028,965	0.051	-2.980					
10/24/2014	593	57,678	1,028,965	0.056	-2.881					
10/25/2014	9,690	362,850	1,028,965	0.353	-1.042					
10/26/2014	1,599	173,924	1,028,965	0.169	-1.778					
10/27/2014	1,659	171,626	1,028,965	0.167	-1.791					
10/28/2014	1,288	344,043	1,028,965	0.334	-1.096					
10/29/2014	763	84,844	1,028,965	0.082	-2.495					
10/30/2014	2,134	167,449	1,028,965	0.163	-1.816					
10/31/2014	1,013	86,924	1,028,965	0.084	-2.471					
11/1/2014	1,262	154,637	1,028,965	0.150	-1.895					
11/2/2014	4,614	389,459	1,028,965	0.378	-0.972					
11/3/2014	1,481	68,213	1,028,965	0.066	-2.714					
11/4/2014	3,292	161,364	1,028,965	0.157	-1.853					
11/5/2014	3,430	297,208	1,028,965	0.289	-1.242					
11/6/2014	3,998	223,676	1,028,965	0.217	-1.526					
11/7/2014	1,206	107,465	1,028,965	0.104	-2.259					
11/8/2014	342	22,915	1,028,965	0.022	-3.805					
11/9/2014	490	31,905	1,028,965	0.031	-3.474					
11/10/2014	930	85,737	1,028,965	0.083	-2.485					
11/11/2014	28,827	708,374	1,028,965	0.688	-0.373					
11/12/2014	2,983	424,984	1,028,965	0.413	-0.884					
11/13/2014	490	49,772	1,028,965	0.048	-3.029					
11/14/2014	921	120,936	1,028,965	0.118	-2.141					
11/15/2014	5,108	736,151	1,028,965	0.715	-0.335					
11/16/2014	333	19,159	1,028,965	0.019	-3.984					
11/17/2014	15,102	1,837,843	1,028,965	1.786	0.580					
11/18/2014	9,439	181,420	1,028,965	0.176	-1.735					
11/19/2014	3,482	348,971	1,028,965	0.339	-1.081					
11/20/2014	3,024	218,928	1,028,965	0.213	-1.548					
11/21/2014	445	74,644	1,028,965	0.073	-2.624					
11/22/2014	1,546	134,718	1,028,965	0.131	-2.033					
11/23/2014	2,525	246,476	1,028,965	0.240	-1.429					
11/24/2014	43,264	9,189,029	1,028,965	8.930	2.189					
11/25/2014	2,065	224,077	1,028,965	0.218	-1.524					
11/26/2014	436	36,406	1,028,965	0.035	-3.342					
11/27/2014	2,585	480,182	1,028,965	0.467	-0.762					
11/28/2014	316	31,774	1,028,965	0.031	-3.478					
11/29/2014	717	56,419	1,028,965	0.055	-2.904					
11/30/2014	3,539	199,073	1,028,965	0.193	-1.643					
12/1/2014	570	44,779	1,028,965	0.044	-3.135					
12/2/2014	454	38,580	1,028,965	0.037	-3.284					
12/3/2014	643	70,917	1,028,965	0.069	-2.675					
12/4/2014	247	32,607	1,028,965	0.032	-3.452					
12/5/2014	1,144	175,941	1,028,965	0.171	-1.766					
12/6/2014	1,716	142,317	1,028,965	0.138	-1.978					
12/7/2014	459	35,455	1,028,965	0.034	-3.368					
12/8/2014	2,355	98,647	1,028,965	0.096	-2.345					
12/9/2014	1,239	178,717	1,028,965	0.174	-1.751					
12/10/2014	1,554	109,424	1,028,965	0.106	-2.241					
12/11/2014	357	25,679	1,028,965	0.025	-3.691					
12/12/2014	132	14,208	1,028,965	0.014	-4.283					
12/13/2014	119	6,876	1,028,965	0.007	-5.008					
12/14/2014	3,113	208,941	1,028,965	0.203	-1.594					
12/15/2014	91	4,375	1,028,965	0.004	-5.460					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
12/16/2014	1,117	113,377	1,028,965	0.110	-2.206					
12/17/2014	3,469	171,158	1,028,965	0.166	-1.794					
12/18/2014	250	19,482	1,028,965	0.019	-3.967					
12/19/2014	1,268	173,026	1,028,965	0.168	-1.783					
12/20/2014	225	9,438	1,028,965	0.009	-4.692					
12/21/2014	1,991	275,416	1,028,965	0.268	-1.318					
12/22/2014	579	52,164	1,028,965	0.051	-2.982					
12/23/2014	1,490	144,339	1,028,965	0.140	-1.964					
12/24/2014	4,240	292,428	1,028,965	0.284	-1.258					
12/25/2014	855	265,363	1,028,965	0.258	-1.355					
12/26/2014	1,985	297,559	1,028,965	0.289	-1.241					
12/27/2014	922	54,388	1,028,965	0.053	-2.940					
12/28/2014	705	73,087	1,028,965	0.071	-2.645					
12/29/2014	398	27,990	1,028,965	0.027	-3.604					
12/30/2014	2,391	114,008	1,028,965	0.111	-2.200					
12/31/2014	63	6,753	1,028,965	0.007	-5.026					
1/1/2015	806	77,210	1,028,167	0.075	-2.589					
1/2/2015	257	23,694	1,028,167	0.023	-3.770					
1/3/2015	1,095	94,537	1,028,167	0.092	-2.387					
1/4/2015	9,090	719,562	1,028,167	0.700	-0.357					
1/5/2015	640	44,948	1,028,167	0.044	-3.130					
1/6/2015	295	32,628	1,028,167	0.032	-3.450					
1/7/2015	244	20,256	1,028,167	0.020	-3.927					
1/8/2015	3,756	293,587	1,028,167	0.286	-1.253					
1/9/2015	954	62,641	1,028,167	0.061	-2.798					
1/10/2015	857	92,368	1,028,167	0.090	-2.410					
1/11/2015	479	34,317	1,028,167	0.033	-3.400					
1/12/2015	2,043	413,053	1,028,167	0.402	-0.912					
1/13/2015	451	57,353	1,028,167	0.056	-2.886					
1/14/2015	3,719	409,267	1,028,167	0.398	-0.921					
1/15/2015	2,192	285,606	1,028,167	0.278	-1.281					
1/16/2015	106	9,493	1,028,167	0.009	-4.685					
1/17/2015	7,924	1,009,107	1,028,167	0.981	-0.019					
1/18/2015	358	33,397	1,028,167	0.032	-3.427					
1/19/2015	256	23,070	1,028,167	0.022	-3.797					
1/20/2015	378	24,553	1,028,167	0.024	-3.735					
1/21/2015	1,109	90,141	1,028,167	0.088	-2.434					
1/22/2015	183	14,467	1,028,167	0.014	-4.264					
1/23/2015	976	87,568	1,028,167	0.085	-2.463					
1/24/2015	67	16,896	1,028,167	0.016	-4.108					
1/25/2015	6,879	558,761	1,028,167	0.543	-0.610					
1/26/2015	87	16,001	1,028,167	0.016	-4.163					
1/27/2015	138	5,240	1,028,167	0.005	-5.279					
1/28/2015	1,054	117,632	1,028,167	0.114	-2.168					
1/29/2015	1,484	214,215	1,028,167	0.208	-1.569					
1/30/2015	3,998	578,978	1,028,167	0.563	-0.574					
1/31/2015	1,100	245,656	1,028,167	0.239	-1.432					
2/1/2015	1,398	331,933	1,028,167	0.323	-1.131					
2/2/2015	779	111,523	1,028,167	0.108	-2.221					
2/3/2015	468	60,669	1,028,167	0.059	-2.830					
2/4/2015	16,965	1,028,574	1,028,167	1.000	0.000					
2/5/2015	130	23,225	1,028,167	0.023	-3.790					
2/6/2015	204	29,964	1,028,167	0.029	-3.536					
2/7/2015	230	32,044	1,028,167	0.031	-3.468					
2/8/2015	4,376	295,105	1,028,167	0.287	-1.248					
2/9/2015	443	53,165	1,028,167	0.052	-2.962					
2/10/2015	1,133	95,195	1,028,167	0.093	-2.380					
2/11/2015	169	8,078	1,028,167	0.008	-4.846					
2/12/2015	454	25,183	1,028,167	0.024	-3.709					
2/13/2015	855	9,984	1,028,167	0.010	-4.635					
2/14/2015	2,336	316,723	1,028,167	0.308	-1.178					
2/15/2015	4,781	296,040	1,028,167	0.288	-1.245					
2/16/2015	2,989	301,487	1,028,167	0.293	-1.227					
2/17/2015	3,191	345,875	1,028,167	0.336	-1.089					
2/18/2015	167	14,679	1,028,167	0.014	-4.249					
2/19/2015	224	43,977	1,028,167	0.043	-3.152					
2/20/2015	1,377	144,779	1,028,167	0.141	-1.960					
2/21/2015	4,393	836,599	1,028,167	0.814	-0.206					
2/22/2015	751	23,998	1,028,167	0.023	-3.758					
2/23/2015	7,559	1,001,575	1,028,167	0.974	-0.026					
2/24/2015	2,644	130,620	1,028,167	0.127	-2.063					
2/25/2015	5,032	268,256	1,028,167	0.261	-1.344					
2/26/2015	89	8,753	1,028,167	0.009	-4.766					
2/27/2015	1,021	99,756	1,028,167	0.097	-2.333					
2/28/2015	272	29,913	1,028,167	0.029	-3.537					
3/1/2015	3,782	267,394	1,028,167	0.260	-1.347					
3/2/2015	216	25,515	1,028,167	0.025	-3.696					
3/3/2015	1,505	286,550	1,028,167	0.279	-1.278					
3/4/2015	851	62,455	1,028,167	0.061	-2.801					
3/5/2015	475	62,055	1,028,167	0.060	-2.808					
3/6/2015	117	16,453	1,028,167	0.016	-4.135					
3/7/2015	80	19,129	1,028,167	0.019	-3.984					
3/8/2015	585	44,447	1,028,167	0.043	-3.141					
3/9/2015	558	41,903	1,028,167	0.041	-3.200					
3/10/2015	2,427	96,672	1,028,167	0.094	-2.364					
3/11/2015	388	49,223	1,028,167	0.048	-3.039					
3/12/2015	410	46,372	1,028,167	0.045	-3.099					
3/13/2015	1,706	128,667	1,028,167	0.125	-2.078					
3/14/2015	4,486	431,484	1,028,167	0.420	-0.868					
3/15/2015	283	40,193	1,028,167	0.039	-3.242					
3/16/2015	7,780	309,221	1,028,167	0.301	-1.201					
3/17/2015	6,215	375,921	1,028,167	0.366	-1.006					
3/18/2015	3,878	252,949	1,028,167	0.246	-1.402					
3/19/2015	637	56,165	1,028,167	0.055	-2.907					
3/20/2015	721	53,647	1,028,167	0.052	-2.953					
3/21/2015	48	2,818	1,028,167	0.003	-5.900					
3/22/2015	292	27,707	1,028,167	0.027	-3.614					
3/23/2015	728	124,644	1,028,167	0.121	-2.110					
3/24/2015	6,327	411,390	1,028,167	0.400	-0.916					
3/25/2015	1,446	146,670	1,028,167	0.143	-1.947					
3/26/2015	3,432	290,571	1,028,167	0.283	-1.264					
3/27/2015	2,243	213,234	1,028,167	0.207	-1.573					
3/28/2015	2,753	382,561	1,028,167	0.372	-0.989					
3/29/2015	653	66,704	1,028,167	0.065	-2.735					
3/30/2015	9,038	857,373	1,028,167	0.834	-0.182					
3/31/2015	535	51,183	1,028,167	0.050	-3.000					
4/1/2015	762	53,821	1,028,167	0.052	-2.950					
4/2/2015	2,850	211,694	1,028,167	0.206	-1.580					

YEAR	Alpha	Beta	TMED NEW RULE
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Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
4/3/2015	2,362	287,987	1,028,167	0.280	-1.273					
4/4/2015	284	22,146	1,028,167	0.022	-3.838					
4/5/2015	1,786	298,508	1,028,167	0.290	-1.237					
4/6/2015	1,819	157,310	1,028,167	0.153	-1.877					
4/7/2015	3,223	319,319	1,028,167	0.311	-1.169					
4/8/2015	943	112,521	1,028,167	0.109	-2.212					
4/9/2015	4,357	471,253	1,028,167	0.458	-0.780					
4/10/2015	8,541	833,478	1,028,167	0.811	-0.210					
4/11/2015	574	141,669	1,028,167	0.138	-1.982					
4/12/2015	12,453	1,569,344	1,028,167	1.526	0.423					
4/13/2015	1,046	137,938	1,028,167	0.134	-2.009					
4/14/2015	411	69,882	1,028,167	0.068	-2.689					
4/15/2015	260	16,578	1,028,167	0.016	-4.127					
4/16/2015	986	109,179	1,028,167	0.106	-2.243					
4/17/2015	484	45,603	1,028,167	0.044	-3.116					
4/18/2015	1,093	136,555	1,028,167	0.133	-2.019					
4/19/2015	4,140	485,159	1,028,167	0.472	-0.751					
4/20/2015	5,280	418,240	1,028,167	0.407	-0.899					
4/21/2015	7,760	498,737	1,028,167	0.485	-0.723					
4/22/2015	2,933	273,582	1,028,167	0.266	-1.324					
4/23/2015	212	18,556	1,028,167	0.018	-4.015					
4/24/2015	2,238	159,967	1,028,167	0.156	-1.861					
4/25/2015	7,146	671,005	1,028,167	0.653	-0.427					
4/26/2015	392	78,069	1,028,167	0.076	-2.578					
4/27/2015	619	92,100	1,028,167	0.090	-2.413					
4/28/2015	4,869	146,613	1,028,167	0.143	-1.948					
4/29/2015	172	18,032	1,028,167	0.018	-4.043					
4/30/2015	280	26,164	1,028,167	0.025	-3.671					
5/1/2015	1,936	116,335	1,028,167	0.113	-2.179					
5/2/2015	830	74,101	1,028,167	0.072	-2.630					
5/3/2015	525	59,237	1,028,167	0.058	-2.854					
5/4/2015	380	34,985	1,028,167	0.034	-3.381					
5/5/2015	6,596	798,254	1,028,167	0.776	-0.253					
5/6/2015	666	74,162	1,028,167	0.072	-2.629					
5/7/2015	1,806	128,101	1,028,167	0.125	-2.083					
5/8/2015	760	86,778	1,028,167	0.084	-2.472					
5/9/2015	1,036	188,918	1,028,167	0.184	-1.694					
5/10/2015	1,676	199,351	1,028,167	0.194	-1.640					
5/11/2015	43,103	7,060,160	1,028,167	6.867	1.927					
5/12/2015	1,114	297,216	1,028,167	0.289	-1.241					
5/13/2015	686	59,421	1,028,167	0.058	-2.851					
5/14/2015	544	74,398	1,028,167	0.072	-2.626					
5/15/2015	13,782	1,037,916	1,028,167	1.009	0.009					
5/16/2015	794	108,556	1,028,167	0.106	-2.248					
5/17/2015	6,893	458,897	1,028,167	0.446	-0.807					
5/18/2015	332	45,224	1,028,167	0.044	-3.124					
5/19/2015	537	72,930	1,028,167	0.071	-2.646					
5/20/2015	1,277	117,800	1,028,167	0.115	-2.167					
5/21/2015	778	53,054	1,028,167	0.052	-2.964					
5/22/2015	404	34,376	1,028,167	0.033	-3.398					
5/23/2015	11,422	807,324	1,028,167	0.785	-0.242					
5/24/2015	587	63,594	1,028,167	0.062	-2.783					
5/25/2015	741	67,748	1,028,167	0.066	-2.720					
5/26/2015	13,285	1,585,624	1,028,167	1.542	0.433					
5/27/2015	7,017	595,126	1,028,167	0.579	-0.547					
5/28/2015	2,547	211,473	1,028,167	0.206	-1.581					
5/29/2015	3,020	188,670	1,028,167	0.184	-1.696					
5/30/2015	9,172	546,737	1,028,167	0.532	-0.632					
5/31/2015	7,423	768,082	1,028,167	0.747	-0.292					
6/1/2015	1,708	78,159	1,028,167	0.076	-2.577					
6/2/2015	621	88,775	1,028,167	0.086	-2.449					
6/3/2015	947	118,053	1,028,167	0.115	-2.164					
6/4/2015	1,029	90,633	1,028,167	0.088	-2.429					
6/5/2015	10,323	683,678	1,028,167	0.665	-0.408					
6/6/2015	919	84,949	1,028,167	0.083	-2.493					
6/7/2015	1,033	175,850	1,028,167	0.171	-1.766					
6/8/2015	1,418	157,954	1,028,167	0.154	-1.873					
6/9/2015	988	129,384	1,028,167	0.126	-2.073					
6/10/2015	1,803	230,092	1,028,167	0.224	-1.497					
6/11/2015	5,210	900,008	1,028,167	0.875	-0.133					
6/12/2015	16,082	2,650,941	1,028,167	2.578	0.947					
6/13/2015	3,415	467,187	1,028,167	0.454	-0.789					
6/14/2015	13,477	1,193,263	1,028,167	1.161	0.149					
6/15/2015	4,154	503,130	1,028,167	0.489	-0.715					
6/16/2015	6,780	1,218,431	1,028,167	1.185	0.170					
6/17/2015	1,837	188,307	1,028,167	0.183	-1.697					
6/18/2015	13,825	4,235,135	1,028,167	4.119	1.416					
6/19/2015	1,475	259,621	1,028,167	0.253	-1.376					
6/20/2015	1,787	185,469	1,028,167	0.180	-1.713					
6/21/2015	1,969	191,700	1,028,167	0.186	-1.680					
6/22/2015	1,827	180,014	1,028,167	0.175	-1.742					
6/23/2015	22,085	1,757,270	1,028,167	1.709	0.536					
6/24/2015	991	118,250	1,028,167	0.115	-2.163					
6/25/2015	6,676	364,926	1,028,167	0.355	-1.036					
6/26/2015	332	30,007	1,028,167	0.029	-3.534					
6/27/2015	7,800	730,754	1,028,167	0.711	-0.341					
6/28/2015	1,996	216,952	1,028,167	0.211	-1.556					
6/29/2015	1,083	121,647	1,028,167	0.118	-2.134					
6/30/2015	3,157	222,482	1,028,167	0.216	-1.531					
7/1/2015	563	83,168	1,028,167	0.081	-2.515					
7/2/2015	712	78,312	1,028,167	0.076	-2.575					
7/3/2015	517	60,145	1,028,167	0.058	-2.839					
7/4/2015	1,432	190,571	1,028,167	0.185	-1.686					
7/5/2015	1,030	63,131	1,028,167	0.061	-2.790					
7/6/2015	985	106,591	1,028,167	0.104	-2.267					
7/7/2015	7,519	636,035	1,028,167	0.619	-0.480					
7/8/2015	1,183	124,417	1,028,167	0.121	-2.112					
7/9/2015	1,452	191,045	1,028,167	0.186	-1.683					
7/10/2015	2,467	166,678	1,028,167	0.162	-1.819					
7/11/2015	2,959	338,208	1,028,167	0.329	-1.112					
7/12/2015	2,070	127,962	1,028,167	0.124	-2.084					
7/13/2015	933	133,942	1,028,167	0.130	-2.038					
7/14/2015	4,206	499,486	1,028,167	0.486	-0.722					
7/15/2015	976	125,948	1,028,167	0.122	-2.100					
7/16/2015	2,997	263,367	1,028,167	0.256	-1.362					
7/17/2015	2,613	512,516	1,028,167	0.498	-0.696					
7/18/2015	13,092	2,469,924	1,028,167	2.402	0.876					
7/19/2015	6,078	1,201,523	1,028,167	1.169	0.156					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
7/20/2015	2,640	306,940	1,028,167	0.299	-1.209					
7/21/2015	1,234	117,269	1,028,167	0.114	-2.171					
7/22/2015	2,282	216,496	1,028,167	0.211	-1.558					
7/23/2015	893	98,934	1,028,167	0.096	-2.341					
7/24/2015	378	38,624	1,028,167	0.038	-3.282					
7/25/2015	7,743	411,581	1,028,167	0.400	-0.916					
7/26/2015	1,439	212,236	1,028,167	0.206	-1.578					
7/27/2015	5,726	598,383	1,028,167	0.582	-0.541					
7/28/2015	12,382	290,683	1,028,167	0.283	-1.263					
7/29/2015	2,051	286,729	1,028,167	0.279	-1.277					
7/30/2015	8,575	311,243	1,028,167	0.303	-1.195					
7/31/2015	835	76,871	1,028,167	0.075	-2.593					
8/1/2015	1,760	96,376	1,028,167	0.094	-2.367					
8/2/2015	3,162	395,415	1,028,167	0.385	-0.956					
8/3/2015	3,780	610,970	1,028,167	0.594	-0.520					
8/4/2015	2,710	275,431	1,028,167	0.268	-1.317					
8/5/2015	3,193	184,967	1,028,167	0.180	-1.715					
8/6/2015	803	70,039	1,028,167	0.068	-2.686					
8/7/2015	1,420	207,826	1,028,167	0.202	-1.599					
8/8/2015	451	48,770	1,028,167	0.047	-3.048					
8/9/2015	14,358	2,327,888	1,028,167	2.264	0.817					
8/10/2015	11,116	568,858	1,028,167	0.553	-0.592					
8/11/2015	1,326	172,243	1,028,167	0.168	-1.787					
8/12/2015	1,008	92,870	1,028,167	0.090	-2.404					
8/13/2015	13,874	1,208,258	1,028,167	1.175	0.161					
8/14/2015	3,210	482,533	1,028,167	0.469	-0.756					
8/15/2015	3,930	146,995	1,028,167	0.143	-1.945					
8/16/2015	1,279	87,814	1,028,167	0.085	-2.460					
8/17/2015	2,987	318,929	1,028,167	0.310	-1.171					
8/18/2015	846	98,599	1,028,167	0.096	-2.344					
8/19/2015	1,085	98,773	1,028,167	0.096	-2.343					
8/20/2015	2,671	418,518	1,028,167	0.407	-0.899					
8/21/2015	876	84,627	1,028,167	0.082	-2.497					
8/22/2015	1,889	97,586	1,028,167	0.095	-2.355					
8/23/2015	421	35,174	1,028,167	0.034	-3.375					
8/24/2015	1,451	173,114	1,028,167	0.168	-1.782					
8/25/2015	6,006	506,176	1,028,167	0.492	-0.709					
8/26/2015	1,506	196,898	1,028,167	0.192	-1.653					
8/27/2015	751	103,651	1,028,167	0.101	-2.295					
8/28/2015	433	46,152	1,028,167	0.045	-3.104					
8/29/2015	489	79,277	1,028,167	0.077	-2.563					
8/30/2015	4,434	347,746	1,028,167	0.338	-1.084					
8/31/2015	755	73,646	1,028,167	0.072	-2.636					
9/1/2015	1,994	182,678	1,028,167	0.178	-1.728					
9/2/2015	1,661	210,572	1,028,167	0.205	-1.586					
9/3/2015	18,221	2,062,586	1,028,167	2.006	0.696					
9/4/2015	7,104	1,056,288	1,028,167	1.027	0.027					
9/5/2015	7,054	274,037	1,028,167	0.267	-1.322					
9/6/2015	2,616	161,658	1,028,167	0.157	-1.850					
9/7/2015	3,452	227,006	1,028,167	0.221	-1.511					
9/8/2015	704	96,957	1,028,167	0.094	-2.361					
9/9/2015	400	43,107	1,028,167	0.042	-3.172					
9/10/2015	9,394	918,918	1,028,167	0.894	-0.112					
9/11/2015	670	105,593	1,028,167	0.103	-2.276					
9/12/2015	2,835	296,008	1,028,167	0.288	-1.245					
9/13/2015	2,947	302,807	1,028,167	0.295	-1.222					
9/14/2015	2,381	200,646	1,028,167	0.195	-1.634					
9/15/2015	1,220	89,483	1,028,167	0.087	-2.441					
9/16/2015	3,117	385,143	1,028,167	0.375	-0.982					
9/17/2015	429	45,455	1,028,167	0.044	-3.119					
9/18/2015	913	70,891	1,028,167	0.069	-2.674					
9/19/2015	11,631	1,114,879	1,028,167	1.084	0.081					
9/20/2015	1,139	81,087	1,028,167	0.079	-2.540					
9/21/2015	9,294	869,305	1,028,167	0.845	-0.168					
9/22/2015	1,387	145,067	1,028,167	0.141	-1.958					
9/23/2015	1,740	134,824	1,028,167	0.131	-2.032					
9/24/2015	4,067	566,168	1,028,167	0.551	-0.597					
9/25/2015	1,479	110,711	1,028,167	0.108	-2.229					
9/26/2015	852	88,871	1,028,167	0.086	-2.448					
9/27/2015	481	46,273	1,028,167	0.045	-3.101					
9/28/2015	503	55,412	1,028,167	0.054	-2.921					
9/29/2015	6,457	597,954	1,028,167	0.582	-0.542					
9/30/2015	2,867	210,911	1,028,167	0.205	-1.584					
10/1/2015	3,571	239,183	1,028,167	0.233	-1.458					
10/2/2015	4,804	915,992	1,028,167	0.891	-0.116					
10/3/2015	3,859	429,471	1,028,167	0.418	-0.873					
10/4/2015	2,094	178,018	1,028,167	0.173	-1.754					
10/5/2015	617	51,642	1,028,167	0.050	-2.991					
10/6/2015	508	46,840	1,028,167	0.046	-3.089					
10/7/2015	2,660	160,935	1,028,167	0.157	-1.855					
10/8/2015	611	58,267	1,028,167	0.057	-2.870					
10/9/2015	728	76,505	1,028,167	0.074	-2.598					
10/10/2015	737	55,119	1,028,167	0.054	-2.926					
10/11/2015	562	45,604	1,028,167	0.044	-3.116					
10/12/2015	7,589	3,670,399	1,028,167	3.570	1.273					
10/13/2015	1,686	105,983	1,028,167	0.103	-2.272					
10/14/2015	770	61,528	1,028,167	0.060	-2.816					
10/15/2015	1,649	99,564	1,028,167	0.097	-2.335					
10/16/2015	3,691	335,582	1,028,167	0.326	-1.120					
10/17/2015	1,791	203,169	1,028,167	0.198	-1.621					
10/18/2015	1,057	81,762	1,028,167	0.080	-2.532					
10/19/2015	4,347	183,558	1,028,167	0.179	-1.723					
10/20/2015	2,596	283,026	1,028,167	0.275	-1.290					
10/21/2015	1,458	101,158	1,028,167	0.098	-2.319					
10/22/2015	1,853	188,962	1,028,167	0.184	-1.694					
10/23/2015	412	34,304	1,028,167	0.033	-3.400					
10/24/2015	2,041	226,312	1,028,167	0.220	-1.514					
10/25/2015	2,269	191,239	1,028,167	0.186	-1.682					
10/26/2015	39,732	948,479	1,028,167	0.922	-0.081					
10/27/2015	1,708	181,910	1,028,167	0.177	-1.732					
10/28/2015	9,113	799,224	1,028,167	0.777	-0.252					
10/29/2015	7,334	1,080,697	1,028,167	1.051	0.050					
10/30/2015	1,015	98,668	1,028,167	0.096	-2.344					
10/31/2015	1,290	120,983	1,028,167	0.118	-2.140					
11/1/2015	546	51,409	1,028,167	0.050	-2.996					
11/2/2015	1,322	87,319	1,028,167	0.085	-2.466					
11/3/2015	941	85,961	1,028,167	0.084	-2.482					
11/4/2015	6,453	465,409	1,028,167	0.453	-0.793					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
11/5/2015	1,361	85,371	1,028,167	0.083	-2.489					
11/6/2015	2,807	182,974	1,028,167	0.178	-1.726					
11/7/2015	994	81,269	1,028,167	0.079	-2.538					
11/8/2015	1,180	60,794	1,028,167	0.059	-2.828					
11/9/2015	3,591	81,373	1,028,167	0.079	-2.536					
11/10/2015	9,718	740,081	1,028,167	0.720	-0.329					
11/11/2015	1,147	97,982	1,028,167	0.095	-2.351					
11/12/2015	18,367	1,221,981	1,028,167	1.189	0.173					
11/13/2015	1,495	168,932	1,028,167	0.164	-1.806					
11/14/2015	415	38,090	1,028,167	0.037	-3.296					
11/15/2015	1,858	95,606	1,028,167	0.093	-2.375					
11/16/2015	2,487	111,739	1,028,167	0.109	-2.219					
11/17/2015	1,496	114,890	1,028,167	0.112	-2.192					
11/18/2015	2,523	259,200	1,028,167	0.252	-1.378					
11/19/2015	779	134,526	1,028,167	0.131	-2.034					
11/20/2015	1,489	50,368	1,028,167	0.049	-3.016					
11/21/2015	1,536	162,409	1,028,167	0.158	-1.845					
11/22/2015	346	39,986	1,028,167	0.039	-3.247					
11/23/2015	3,893	279,591	1,028,167	0.272	-1.302					
11/24/2015	709	48,869	1,028,167	0.048	-3.046					
11/25/2015	1,326	156,122	1,028,167	0.152	-1.885					
11/26/2015	7,168	1,770,176	1,028,167	1.722	0.543					
11/27/2015	2,489	272,930	1,028,167	0.265	-1.326					
11/28/2015	1,676	88,374	1,028,167	0.086	-2.454					
11/29/2015	2,229	394,161	1,028,167	0.383	-0.959					
11/30/2015	2,074	205,071	1,028,167	0.199	-1.612					
12/1/2015	692	44,159	1,028,167	0.043	-3.148					
12/2/2015	3,984	328,459	1,028,167	0.319	-1.141					
12/3/2015	335	25,503	1,028,167	0.025	-3.697					
12/4/2015	669	34,050	1,028,167	0.033	-3.408					
12/5/2015	4,399	401,185	1,028,167	0.390	-0.941					
12/6/2015	156	8,753	1,028,167	0.009	-4.766					
12/7/2015	851	71,866	1,028,167	0.070	-2.661					
12/8/2015	1,649	149,388	1,028,167	0.145	-1.929					
12/9/2015	964	87,098	1,028,167	0.085	-2.468					
12/10/2015	375	33,696	1,028,167	0.033	-3.418					
12/11/2015	277	24,297	1,028,167	0.024	-3.745					
12/12/2015	11,559	671,936	1,028,167	0.654	-0.425					
12/13/2015	358	32,305	1,028,167	0.031	-3.460					
12/14/2015	735	72,483	1,028,167	0.070	-2.652					
12/15/2015	414	28,984	1,028,167	0.028	-3.569					
12/16/2015	368	30,443	1,028,167	0.030	-3.520					
12/17/2015	798	96,755	1,028,167	0.094	-2.363					
12/18/2015	3,601	248,173	1,028,167	0.241	-1.421					
12/19/2015	195	36,090	1,028,167	0.035	-3.350					
12/20/2015	1,434	206,389	1,028,167	0.201	-1.606					
12/21/2015	5,309	513,969	1,028,167	0.500	-0.693					
12/22/2015	12,642	429,396	1,028,167	0.418	-0.873					
12/23/2015	3,680	293,924	1,028,167	0.286	-1.252					
12/24/2015	895	106,683	1,028,167	0.104	-2.266					
12/25/2015	1,356	90,671	1,028,167	0.088	-2.428					
12/26/2015	3,916	387,018	1,028,167	0.376	-0.977					
12/27/2015	815	89,907	1,028,167	0.087	-2.437					
12/28/2015	7,683	1,331,140	1,028,167	1.295	0.258					
12/29/2015	2,532	189,388	1,028,167	0.184	-1.692					
12/30/2015	146	8,185	1,028,167	0.008	-4.833					
12/31/2015	73	5,869	1,028,167	0.006	-5.166					
1/1/2016	543	87,775	1,031,708	0.085	-2.464					
1/2/2016	2,495	158,058	1,031,708	0.153	-1.876					
1/3/2016	849	71,060	1,031,708	0.069	-2.675					
1/4/2016	440	97,821	1,031,708	0.095	-2.356					
1/5/2016	288	33,855	1,031,708	0.033	-3.417					
1/6/2016	392	44,134	1,031,708	0.043	-3.152					
1/7/2016	351	26,726	1,031,708	0.026	-3.653					
1/8/2016	3,532	121,603	1,031,708	0.118	-2.138					
1/9/2016	1,377	157,317	1,031,708	0.152	-1.881					
1/10/2016	6,978	1,069,343	1,031,708	1.036	0.036					
1/11/2016	287	40,953	1,031,708	0.040	-3.227					
1/12/2016	381	48,889	1,031,708	0.047	-3.049					
1/13/2016	812	70,844	1,031,708	0.069	-2.678					
1/14/2016	449	87,981	1,031,708	0.085	-2.462					
1/15/2016	1,541	127,593	1,031,708	0.124	-2.090					
1/16/2016	1,459	73,683	1,031,708	0.071	-2.639					
1/17/2016	141	30,303	1,031,708	0.029	-3.528					
1/18/2016	166	25,615	1,031,708	0.025	-3.696					
1/19/2016	198	25,907	1,031,708	0.025	-3.684					
1/20/2016	339	29,605	1,031,708	0.029	-3.551					
1/21/2016	325	47,297	1,031,708	0.046	-3.083					
1/22/2016	4,816	287,984	1,031,708	0.279	-1.276					
1/23/2016	90	6,187	1,031,708	0.006	-5.117					
1/24/2016	468	31,690	1,031,708	0.031	-3.483					
1/25/2016	1,424	145,705	1,031,708	0.141	-1.957					
1/26/2016	691	67,113	1,031,708	0.065	-2.733					
1/27/2016	1,076	63,186	1,031,708	0.061	-2.793					
1/28/2016	160	11,580	1,031,708	0.011	-4.490					
1/29/2016	105	9,389	1,031,708	0.009	-4.699					
1/30/2016	608	53,998	1,031,708	0.052	-2.950					
1/31/2016	25	2,122	1,031,708	0.002	-6.187					
2/1/2016	456	40,197	1,031,708	0.039	-3.245					
2/2/2016	934	120,978	1,031,708	0.117	-2.143					
2/3/2016	2,572	255,078	1,031,708	0.247	-1.397					
2/4/2016	1,433	221,870	1,031,708	0.215	-1.537					
2/5/2016	260	24,066	1,031,708	0.023	-3.758					
2/6/2016	205	58,454	1,031,708	0.057	-2.871					
2/7/2016	207	14,431	1,031,708	0.014	-4.270					
2/8/2016	598	62,822	1,031,708	0.061	-2.799					
2/9/2016	164	13,912	1,031,708	0.013	-4.306					
2/10/2016	3,786	221,850	1,031,708	0.215	-1.537					
2/11/2016	2,731	149,584	1,031,708	0.145	-1.931					
2/12/2016	582	76,219	1,031,708	0.074	-2.605					
2/13/2016	512	100,815	1,031,708	0.098	-2.326					
2/14/2016	1,064	105,056	1,031,708	0.102	-2.284					
2/15/2016	42	4,557	1,031,708	0.004	-5.422					
2/16/2016	10,705	4,995,886	1,031,708	4.842	1.577					
2/17/2016	645	56,764	1,031,708	0.055	-2.900					
2/18/2016	9,166	189,253	1,031,708	0.183	-1.696					
2/19/2016	16,380	1,264,178	1,031,708	1.225	0.203					
2/20/2016	10,636	696,541	1,031,708	0.675	-0.393					

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
2/21/2016	328	21,056	1,031,708	0.020	-3.892					
2/22/2016	1,719	77,939	1,031,708	0.076	-2.583					
2/23/2016	2,712	413,072	1,031,708	0.400	-0.915					
2/24/2016	3,878	256,924	1,031,708	0.249	-1.390					
2/25/2016	974	135,516	1,031,708	0.131	-2.030					
2/26/2016	2,867	599,695	1,031,708	0.581	-0.543					
2/27/2016	146	17,135	1,031,708	0.017	-4.098					
2/28/2016	4,262	636,009	1,031,708	0.616	-0.484					
2/29/2016	11,192	3,417,628	1,031,708	3.313	1.198					
3/1/2016	11,213	1,524,182	1,031,708	1.477	0.390					
3/2/2016	90	13,134	1,031,708	0.013	-4.364					
3/3/2016	2,705	281,105	1,031,708	0.272	-1.300					
3/4/2016	231	9,795	1,031,708	0.009	-4.657					
3/5/2016	371	32,984	1,031,708	0.032	-3.443					
3/6/2016	601	87,920	1,031,708	0.085	-2.463					
3/7/2016	1,498	27,907	1,031,708	0.027	-3.610					
3/8/2016	773	87,278	1,031,708	0.085	-2.470					
3/9/2016	964	79,080	1,031,708	0.077	-2.569					
3/10/2016	1,521	117,945	1,031,708	0.114	-2.169					
3/11/2016	1,672	151,913	1,031,708	0.147	-1.916					
3/12/2016	960	82,939	1,031,708	0.080	-2.521					
3/13/2016	2,766	348,005	1,031,708	0.337	-1.087					
3/14/2016	1,607	185,689	1,031,708	0.180	-1.715					
3/15/2016	3,173	371,693	1,031,708	0.360	-1.021					
3/16/2016	7,880	694,745	1,031,708	0.673	-0.395					
3/17/2016	2,296	179,401	1,031,708	0.174	-1.749					
3/18/2016	314	26,508	1,031,708	0.026	-3.662					
3/19/2016	1,436	126,939	1,031,708	0.123	-2.095					
3/20/2016	90	13,907	1,031,708	0.013	-4.307					
3/21/2016	6,520	229,543	1,031,708	0.222	-1.503					
3/22/2016	258	25,352	1,031,708	0.025	-3.706					
3/23/2016	2,331	251,323	1,031,708	0.244	-1.412					
3/24/2016	4,907	501,153	1,031,708	0.486	-0.722					
3/25/2016	2,660	94,351	1,031,708	0.091	-2.392					
3/26/2016	323	20,900	1,031,708	0.020	-3.899					
3/27/2016	9,872	171,910	1,031,708	0.167	-1.792					
3/28/2016	1,625	247,000	1,031,708	0.239	-1.430					
3/29/2016	1,123	132,574	1,031,708	0.128	-2.052					
3/30/2016	1,027	222,721	1,031,708	0.216	-1.533					
3/31/2016	6,067	509,258	1,031,708	0.494	-0.706					
4/1/2016	5,391	444,050	1,031,708	0.430	-0.843					
4/2/2016	18,080	2,560,821	1,031,708	2.482	0.909					
4/3/2016	4,699	324,442	1,031,708	0.314	-1.157					
4/4/2016	960	44,663	1,031,708	0.043	-3.140					
4/5/2016	263	23,541	1,031,708	0.023	-3.780					
4/6/2016	542	68,780	1,031,708	0.067	-2.708					
4/7/2016	1,194	154,003	1,031,708	0.149	-1.902					
4/8/2016	1,651	135,416	1,031,708	0.131	-2.031					
4/9/2016	7,115	1,032,232	1,031,708	1.001	0.001					
4/10/2016	4,064	503,631	1,031,708	0.488	-0.717					
4/11/2016	1,991	168,416	1,031,708	0.163	-1.813					
4/12/2016	1,442	80,109	1,031,708	0.078	-2.556					
4/13/2016	205	19,161	1,031,708	0.019	-3.986					
4/14/2016	1,023	319,518	1,031,708	0.310	-1.172					
4/15/2016	1,368	186,960	1,031,708	0.181	-1.708					
4/16/2016	281	27,667	1,031,708	0.027	-3.619					
4/17/2016	373	24,493	1,031,708	0.024	-3.741					
4/18/2016	377	58,326	1,031,708	0.057	-2.873					
4/19/2016	358	35,821	1,031,708	0.035	-3.360					
4/20/2016	703	51,674	1,031,708	0.050	-2.994					
4/21/2016	4,010	232,806	1,031,708	0.226	-1.489					
4/22/2016	798	174,405	1,031,708	0.169	-1.778					
4/23/2016	63	6,922	1,031,708	0.007	-5.004					
4/24/2016	263	22,368	1,031,708	0.022	-3.831					
4/25/2016	371	48,148	1,031,708	0.047	-3.065					
4/26/2016	3,610	429,491	1,031,708	0.416	-0.876					
4/27/2016	282	23,862	1,031,708	0.023	-3.767					
4/28/2016	1,664	123,916	1,031,708	0.120	-2.119					
4/29/2016	361	35,332	1,031,708	0.034	-3.374					
4/30/2016	316	39,277	1,031,708	0.038	-3.268					
5/1/2016	3,617	308,632	1,031,708	0.299	-1.207					
5/2/2016	3,676	252,685	1,031,708	0.245	-1.407					
5/3/2016	1,305	120,888	1,031,708	0.117	-2.144					
5/4/2016	1,970	81,335	1,031,708	0.079	-2.540					
5/5/2016	239	31,414	1,031,708	0.030	-3.492					
5/6/2016	1,783	399,981	1,031,708	0.388	-0.948					
5/7/2016	2,698	208,025	1,031,708	0.202	-1.601					
5/8/2016	2,167	187,142	1,031,708	0.181	-1.707					
5/9/2016	11,843	280,163	1,031,708	0.272	-1.304					
5/10/2016	672	68,658	1,031,708	0.067	-2.710					
5/11/2016	1,494	62,941	1,031,708	0.061	-2.797					
5/12/2016	662	78,303	1,031,708	0.076	-2.578					
5/13/2016	242	42,630	1,031,708	0.041	-3.186					
5/14/2016	10,782	1,846,540	1,031,708	1.790	0.582					
5/15/2016	910	118,145	1,031,708	0.115	-2.167					
5/16/2016	3,061	370,649	1,031,708	0.359	-1.024					
5/17/2016	11,489	734,437	1,031,708	0.712	-0.340					
5/18/2016	1,737	196,093	1,031,708	0.190	-1.660					
5/19/2016	481	45,425	1,031,708	0.044	-3.123					
5/20/2016	399	27,544	1,031,708	0.027	-3.623					
5/21/2016	544	49,313	1,031,708	0.048	-3.041					
5/22/2016	2,377	216,273	1,031,708	0.210	-1.562					
5/23/2016	496	49,303	1,031,708	0.048	-3.041					
5/24/2016	5,392	309,187	1,031,708	0.300	-1.205					
5/25/2016	3,300	354,426	1,031,708	0.344	-1.068					
5/26/2016	842	99,809	1,031,708	0.097	-2.336					
5/27/2016	1,043	75,644	1,031,708	0.073	-2.613					
5/28/2016	4,634	593,088	1,031,708	0.575	-0.554					
5/29/2016	1,723	198,112	1,031,708	0.192	-1.650					
5/30/2016	797	103,827	1,031,708	0.101	-2.296					
5/31/2016	794	68,970	1,031,708	0.067	-2.705					
6/1/2016	802	98,767	1,031,708	0.096	-2.346					
6/2/2016	1,322	136,711	1,031,708	0.133	-2.021					
6/3/2016	5,239	458,655	1,031,708	0.445	-0.811					
6/4/2016	1,333	114,808	1,031,708	0.111	-2.196					
6/5/2016	8,490	1,529,706	1,031,708	1.483	0.394					
6/6/2016	10,385	1,006,438	1,031,708	0.976	-0.025					
6/7/2016	3,736	230,255	1,031,708	0.223	-1.500					

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
6/8/2016	1,157	142,950	1,031,708	0.139	-1.976					
6/9/2016	1,141	86,354	1,031,708	0.084	-2.481					
6/10/2016	1,150	62,433	1,031,708	0.061	-2.805					
6/11/2016	11,865	784,543	1,031,708	0.760	-0.274					
6/12/2016	2,840	268,861	1,031,708	0.261	-1.345					
6/13/2016	1,513	153,296	1,031,708	0.149	-1.907					
6/14/2016	1,658	243,741	1,031,708	0.236	-1.443					
6/15/2016	3,447	276,422	1,031,708	0.268	-1.317					
6/16/2016	30,677	3,999,611	1,031,708	3.877	1.355					
6/17/2016	2,429	237,359	1,031,708	0.230	-1.469					
6/18/2016	2,598	203,441	1,031,708	0.197	-1.624					
6/19/2016	2,592	286,728	1,031,708	0.278	-1.280					
6/20/2016	1,852	174,664	1,031,708	0.169	-1.776					
6/21/2016	2,899	222,367	1,031,708	0.216	-1.535					
6/22/2016	2,432	257,977	1,031,708	0.250	-1.386					
6/23/2016	2,613	230,813	1,031,708	0.224	-1.497					
6/24/2016	958	119,186	1,031,708	0.116	-2.158					
6/25/2016	5,086	778,291	1,031,708	0.754	-0.282					
6/26/2016	7,247	1,315,223	1,031,708	1.275	0.243					
6/27/2016	2,361	323,187	1,031,708	0.313	-1.161					
6/28/2016	3,064	221,663	1,031,708	0.215	-1.538					
6/29/2016	2,214	227,679	1,031,708	0.221	-1.511					
6/30/2016	1,526	168,449	1,031,708	0.163	-1.812					
7/1/2016	1,676	151,787	1,031,708	0.147	-1.916					
7/2/2016	1,650	170,886	1,031,708	0.166	-1.798					
7/3/2016	8,519	689,986	1,031,708	0.669	-0.402					
7/4/2016	743	73,519	1,031,708	0.071	-2.641					
7/5/2016	1,245	145,510	1,031,708	0.141	-1.959					
7/6/2016	4,158	564,613	1,031,708	0.547	-0.603					
7/7/2016	4,654	521,036	1,031,708	0.505	-0.683					
7/8/2016	1,246	139,992	1,031,708	0.136	-1.997					
7/9/2016	2,159	297,213	1,031,708	0.288	-1.245					
7/10/2016	4,407	383,553	1,031,708	0.372	-0.989					
7/11/2016	1,890	342,179	1,031,708	0.332	-1.104					
7/12/2016	4,390	456,792	1,031,708	0.443	-0.815					
7/13/2016	33,072	4,860,269	1,031,708	4.711	1.550					
7/14/2016	8,906	934,971	1,031,708	0.906	-0.098					
7/15/2016	1,472	90,243	1,031,708	0.087	-2.436					
7/16/2016	948	91,079	1,031,708	0.088	-2.427					
7/17/2016	1,128	103,994	1,031,708	0.101	-2.295					
7/18/2016	10,698	1,752,018	1,031,708	1.698	0.530					
7/19/2016	1,063	108,748	1,031,708	0.105	-2.250					
7/20/2016	813	77,479	1,031,708	0.075	-2.589					
7/21/2016	3,151	289,895	1,031,708	0.281	-1.269					
7/22/2016	6,656	930,393	1,031,708	0.902	-0.103					
7/23/2016	4,792	455,345	1,031,708	0.441	-0.818					
7/24/2016	8,306	921,725	1,031,708	0.893	-0.113					
7/25/2016	3,260	319,006	1,031,708	0.309	-1.174					
7/26/2016	1,519	107,219	1,031,708	0.104	-2.264					
7/27/2016	1,438	162,823	1,031,708	0.158	-1.846					
7/28/2016	1,271	114,489	1,031,708	0.111	-2.198					
7/29/2016	662	100,546	1,031,708	0.097	-2.328					
7/30/2016	2,074	190,733	1,031,708	0.185	-1.688					
7/31/2016	2,438	202,096	1,031,708	0.196	-1.630					
8/1/2016	1,172	118,692	1,031,708	0.115	-2.162					
8/2/2016	952	111,430	1,031,708	0.108	-2.226					
8/3/2016	1,560	156,129	1,031,708	0.151	-1.888					
8/4/2016	2,276	201,250	1,031,708	0.195	-1.634					
8/5/2016	3,170	174,635	1,031,708	0.169	-1.776					
8/6/2016	1,235	176,904	1,031,708	0.171	-1.763					
8/7/2016	1,028	79,093	1,031,708	0.077	-2.568					
8/8/2016	659	126,551	1,031,708	0.123	-2.098					
8/9/2016	2,443	340,054	1,031,708	0.330	-1.110					
8/10/2016	4,297	639,845	1,031,708	0.620	-0.478					
8/11/2016	9,234	927,337	1,031,708	0.899	-0.107					
8/12/2016	4,203	454,099	1,031,708	0.440	-0.821					
8/13/2016	8,350	1,144,008	1,031,708	1.109	0.103					
8/14/2016	1,454	137,007	1,031,708	0.133	-2.019					
8/15/2016	2,887	350,932	1,031,708	0.340	-1.078					
8/16/2016	7,441	999,682	1,031,708	0.969	-0.032					
8/17/2016	770	104,936	1,031,708	0.102	-2.286					
8/18/2016	1,932	329,023	1,031,708	0.319	-1.143					
8/19/2016	3,007	404,235	1,031,708	0.392	-0.937					
8/20/2016	1,288	277,138	1,031,708	0.269	-1.314					
8/21/2016	756	62,200	1,031,708	0.060	-2.809					
8/22/2016	1,335	154,525	1,031,708	0.150	-1.899					
8/23/2016	1,486	79,939	1,031,708	0.077	-2.558					
8/24/2016	627	92,366	1,031,708	0.090	-2.413					
8/25/2016	17,126	1,030,511	1,031,708	0.999	-0.001					
8/26/2016	953	89,781	1,031,708	0.087	-2.442					
8/27/2016	7,899	1,346,396	1,031,708	1.305	0.266					
8/28/2016	23,948	3,698,491	1,031,708	3.585	1.277					
8/29/2016	14,009	2,006,921	1,031,708	1.945	0.665					
8/30/2016	3,816	296,117	1,031,708	0.287	-1.248					
8/31/2016	810	78,524	1,031,708	0.076	-2.576					
9/1/2016	1,997	379,552	1,031,708	0.368	-1.000					
9/2/2016	1,342	49,622	1,031,708	0.048	-3.035					
9/3/2016	905	78,892	1,031,708	0.076	-2.571					
9/4/2016	1,757	136,935	1,031,708	0.133	-2.019					
9/5/2016	815	102,405	1,031,708	0.099	-2.310					
9/6/2016	2,522	207,201	1,031,708	0.201	-1.605					
9/7/2016	4,081	880,583	1,031,708	0.854	-0.158					
9/8/2016	5,547	721,708	1,031,708	0.700	-0.357					
9/9/2016	7,155	581,540	1,031,708	0.564	-0.573					
9/10/2016	7,453	1,066,481	1,031,708	1.034	0.033					
9/11/2016	1,276	104,471	1,031,708	0.101	-2.290					
9/12/2016	569	54,940	1,031,708	0.053	-2.933					
9/13/2016	899	101,176	1,031,708	0.098	-2.322					
9/14/2016	3,381	231,644	1,031,708	0.225	-1.494					
9/15/2016	1,608	138,950	1,031,708	0.135	-2.005					
9/16/2016	1,240	127,496	1,031,708	0.124	-2.091					
9/17/2016	7,264	876,654	1,031,708	0.850	-0.163					
9/18/2016	755	91,555	1,031,708	0.089	-2.422					
9/19/2016	4,241	237,153	1,031,708	0.230	-1.470					
9/20/2016	306	27,020	1,031,708	0.026	-3.642					
9/21/2016	5,051	432,275	1,031,708	0.419	-0.870					
9/22/2016	6,449	378,774	1,031,708	0.367	-1.002					
9/23/2016	2,265	150,556	1,031,708	0.146	-1.925					

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
9/24/2016	2,071	167,495	1,031,708	0.162	-1.818					
9/25/2016	1,455	154,162	1,031,708	0.149	-1.901					
9/26/2016	2,126	187,934	1,031,708	0.182	-1.703					
9/27/2016	1,804	136,719	1,031,708	0.133	-2.021					
9/28/2016	4,150	270,543	1,031,708	0.262	-1.339					
9/29/2016	2,962	311,339	1,031,708	0.302	-1.198					
9/30/2016	4,697	470,779	1,031,708	0.456	-0.785					
10/1/2016	3,800	116,160	1,031,708	0.113	-2.184					
10/2/2016	10,131	687,114	1,031,708	0.666	-0.406					
10/3/2016	3,726	247,903	1,031,708	0.240	-1.426					
10/4/2016	761	72,346	1,031,708	0.070	-2.658					
10/5/2016	513	43,859	1,031,708	0.043	-3.158					
10/6/2016	791	62,245	1,031,708	0.060	-2.808					
10/7/2016	2,474	111,072	1,031,708	0.108	-2.229					
10/8/2016	7,258	413,825	1,031,708	0.401	-0.914					
10/9/2016	824	75,630	1,031,708	0.073	-2.613					
10/10/2016	1,023	201,181	1,031,708	0.195	-1.635					
10/11/2016	2,888	141,267	1,031,708	0.137	-1.988					
10/12/2016	1,049	53,278	1,031,708	0.052	-2.963					
10/13/2016	905	95,741	1,031,708	0.093	-2.377					
10/14/2016	968	86,339	1,031,708	0.084	-2.481					
10/15/2016	635	81,778	1,031,708	0.079	-2.535					
10/16/2016	1,117	100,085	1,031,708	0.097	-2.333					
10/17/2016	2,539	216,218	1,031,708	0.210	-1.563					
10/18/2016	1,674	124,764	1,031,708	0.121	-2.113					
10/19/2016	984	127,352	1,031,708	0.123	-2.092					
10/20/2016	4,115	418,811	1,031,708	0.406	-0.902					
10/21/2016	5,984	551,316	1,031,708	0.534	-0.627					
10/22/2016	1,026	80,248	1,031,708	0.078	-2.554					
10/23/2016	2,015	288,015	1,031,708	0.279	-1.276					
10/24/2016	939	71,644	1,031,708	0.069	-2.667					
10/25/2016	946	64,950	1,031,708	0.063	-2.765					
10/26/2016	1,056	129,172	1,031,708	0.125	-2.078					
10/27/2016	2,137	285,163	1,031,708	0.276	-1.286					
10/28/2016	715	62,938	1,031,708	0.061	-2.797					
10/29/2016	6,715	573,375	1,031,708	0.556	-0.587					
10/30/2016	902	95,874	1,031,708	0.093	-2.376					
10/31/2016	308	35,058	1,031,708	0.034	-3.382					
11/1/2016	7,452	383,764	1,031,708	0.372	-0.989					
11/2/2016	4,136	456,592	1,031,708	0.443	-0.815					
11/3/2016	871	118,027	1,031,708	0.114	-2.168					
11/4/2016	9,313	692,832	1,031,708	0.672	-0.398					
11/5/2016	2,938	278,394	1,031,708	0.270	-1.310					
11/6/2016	877	75,852	1,031,708	0.074	-2.610					
11/7/2016	1,083	135,978	1,031,708	0.132	-2.026					
11/8/2016	4,045	248,466	1,031,708	0.241	-1.424					
11/9/2016	2,108	210,512	1,031,708	0.204	-1.589					
11/10/2016	3,378	413,806	1,031,708	0.401	-0.914					
11/11/2016	3,922	365,209	1,031,708	0.354	-1.039					
11/12/2016	513	81,149	1,031,708	0.079	-2.543					
11/13/2016	3,083	192,097	1,031,708	0.186	-1.681					
11/14/2016	492	47,511	1,031,708	0.046	-3.078					
11/15/2016	380	42,496	1,031,708	0.041	-3.190					
11/16/2016	324	17,929	1,031,708	0.017	-4.053					
11/17/2016	699	155,028	1,031,708	0.150	-1.895					
11/18/2016	902	86,227	1,031,708	0.084	-2.482					
11/19/2016	7,310	612,106	1,031,708	0.593	-0.522					
11/20/2016	1,632	250,952	1,031,708	0.243	-1.414					
11/21/2016	980	90,574	1,031,708	0.088	-2.433					
11/22/2016	7,840	704,860	1,031,708	0.683	-0.381					
11/23/2016	544	36,099	1,031,708	0.035	-3.353					
11/24/2016	1,506	136,420	1,031,708	0.132	-2.023					
11/25/2016	310	42,475	1,031,708	0.041	-3.190					
11/26/2016	361	18,989	1,031,708	0.018	-3.995					
11/27/2016	1,104	177,004	1,031,708	0.172	-1.763					
11/28/2016	2,465	105,397	1,031,708	0.102	-2.281					
11/29/2016	10,312	1,198,705	1,031,708	1.162	0.150					
11/30/2016	3,051	345,132	1,031,708	0.335	-1.095					
12/1/2016	793	97,100	1,031,708	0.094	-2.363					
12/2/2016	185	36,563	1,031,708	0.035	-3.340					
12/3/2016	505	45,727	1,031,708	0.044	-3.116					
12/4/2016	748	65,128	1,031,708	0.063	-2.763					
12/5/2016	4,028	71,451	1,031,708	0.069	-2.670					
12/6/2016	3,262	141,944	1,031,708	0.138	-1.984					
12/7/2016	851	92,381	1,031,708	0.090	-2.413					
12/8/2016	1,068	31,843	1,031,708	0.031	-3.478					
12/9/2016	560	36,833	1,031,708	0.036	-3.333					
12/10/2016	958	103,085	1,031,708	0.100	-2.303					
12/11/2016	9,355	598,579	1,031,708	0.580	-0.544					
12/12/2016	1,345	130,158	1,031,708	0.126	-2.070					
12/13/2016	731	115,550	1,031,708	0.112	-2.189					
12/14/2016	337	57,557	1,031,708	0.056	-2.886					
12/15/2016	2,446	208,332	1,031,708	0.202	-1.600					
12/16/2016	5,752	641,950	1,031,708	0.622	-0.474					
12/17/2016	3,040	261,442	1,031,708	0.253	-1.373					
12/18/2016	2,608	530,146	1,031,708	0.514	-0.666					
12/19/2016	716	130,056	1,031,708	0.126	-2.071					
12/20/2016	963	64,151	1,031,708	0.062	-2.778					
12/21/2016	255	23,994	1,031,708	0.023	-3.761					
12/22/2016	807	68,900	1,031,708	0.067	-2.706					
12/23/2016	619	118,458	1,031,708	0.115	-2.164					
12/24/2016	2,932	503,427	1,031,708	0.488	-0.718					
12/25/2016	207	11,890	1,031,708	0.012	-4.463					
12/26/2016	11,877	392,614	1,031,708	0.381	-0.966					
12/27/2016	1,680	153,439	1,031,708	0.149	-1.906					
12/28/2016	333	30,501	1,031,708	0.030	-3.521					
12/29/2016	413	30,243	1,031,708	0.029	-3.530					
12/30/2016	1,427	95,278	1,031,708	0.092	-2.382					
12/31/2016	801	64,345	1,031,708	0.062	-2.775			801	64,345	
1/1/2017	621	70,544	1,036,832	0.068	-2.688			621	70,544	
1/2/2017	2,632	214,227	1,036,832	0.207	-1.577			2,632	214,227	
1/3/2017	2,585	204,933	1,036,832	0.198	-1.621			2,585	204,933	
1/4/2017	1,540	178,314	1,036,832	0.172	-1.760			1,540	178,314	
1/5/2017	6,063	146,224	1,036,832	0.141	-1.959	5,506	33,036	557	113,188	
1/6/2017	3,583	740,058	1,036,832	0.714	-0.337			3,583	740,058	
1/7/2017	87	12,371	1,036,832	0.012	-4.429			87	12,371	
1/8/2017	173	8,285	1,036,832	0.008	-4.829			173	8,285	
1/9/2017	112	6,606	1,036,832	0.006	-5.056			112	6,606	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
1/10/2017	29,002	7,587,501	1,036,832	7.318	1.990	5,354	386,642	23,648	7,200,859	1
1/11/2017	13,878	2,988,763	1,036,832	2.883	1.059	2,581	25,810	11,297	2,962,953	
1/12/2017	2,910	233,645	1,036,832	0.225	-1.490			2,910	233,645	
1/13/2017	454	42,881	1,036,832	0.041	-3.185			454	42,881	
1/14/2017	964	55,954	1,036,832	0.054	-2.919			964	55,954	
1/15/2017	146	23,298	1,036,832	0.022	-3.796			146	23,298	
1/16/2017	3,963	252,582	1,036,832	0.244	-1.412			3,963	252,582	
1/17/2017	1,864	117,792	1,036,832	0.114	-2.175			1,864	117,792	
1/18/2017	594	56,799	1,036,832	0.055	-2.904			594	56,799	
1/19/2017	279	17,537	1,036,832	0.017	-4.080			279	17,537	
1/20/2017	977	66,322	1,036,832	0.064	-2.749			977	66,322	
1/21/2017	3,174	205,997	1,036,832	0.199	-1.616			3,174	205,997	
1/22/2017	198	16,778	1,036,832	0.016	-4.124			198	16,778	
1/23/2017	258	32,185	1,036,832	0.031	-3.472			258	32,185	
1/24/2017	201	20,187	1,036,832	0.019	-3.939			201	20,187	
1/25/2017	342	33,964	1,036,832	0.033	-3.419			342	33,964	
1/26/2017	186	18,665	1,036,832	0.018	-4.017			186	18,665	
1/27/2017	98	10,895	1,036,832	0.011	-4.556			98	10,895	
1/28/2017	303	51,716	1,036,832	0.050	-2.998			303	51,716	
1/29/2017	4,309	325,318	1,036,832	0.314	-1.159			4,309	325,318	
1/30/2017	76	7,446	1,036,832	0.007	-4.936			76	7,446	
1/31/2017	2,654	41,224	1,036,832	0.040	-3.225			2,654	41,224	
2/1/2017	1,864	106,963	1,036,832	0.103	-2.271	1,006	8,048	858	98,915	
2/2/2017	867	16,107	1,036,832	0.016	-4.165			867	16,107	
2/3/2017	296	36,183	1,036,832	0.035	-3.355			296	36,183	
2/4/2017	100	9,070	1,036,832	0.009	-4.739			100	9,070	
2/5/2017	106	22,101	1,036,832	0.021	-3.848			106	22,101	
2/6/2017	1,480	89,592	1,036,832	0.086	-2.449			1,480	89,592	
2/7/2017	4,547	361,876	1,036,832	0.349	-1.053			4,547	361,876	
2/8/2017	272	21,347	1,036,832	0.021	-3.883			272	21,347	
2/9/2017	2,385	217,341	1,036,832	0.210	-1.562			2,385	217,341	
2/10/2017	447	156,520	1,036,832	0.151	-1.891			447	156,520	
2/11/2017	289	19,213	1,036,832	0.019	-3.988			289	19,213	
2/12/2017	13,875	1,936,047	1,036,832	1.867	0.624			13,875	1,936,047	
2/13/2017	1,269	106,216	1,036,832	0.102	-2.278			1,269	106,216	
2/14/2017	752	55,749	1,036,832	0.054	-2.923			752	55,749	
2/15/2017	142	24,975	1,036,832	0.024	-3.726			142	24,975	
2/16/2017	1,488	96,799	1,036,832	0.093	-2.371			1,488	96,799	
2/17/2017	237	24,943	1,036,832	0.024	-3.727			237	24,943	
2/18/2017	1,733	135,173	1,036,832	0.130	-2.037			1,733	135,173	
2/19/2017	152	14,878	1,036,832	0.014	-4.244			152	14,878	
2/20/2017	276	45,044	1,036,832	0.043	-3.136			276	45,044	
2/21/2017	303	33,983	1,036,832	0.033	-3.418			303	33,983	
2/22/2017	783	50,949	1,036,832	0.049	-3.013			783	50,949	
2/23/2017	1,518	95,504	1,036,832	0.092	-2.385			1,518	95,504	
2/24/2017	4,915	230,596	1,036,832	0.222	-1.503			4,915	230,596	
2/25/2017	1,284	245,042	1,036,832	0.236	-1.442			1,284	245,042	
2/26/2017	169	13,884	1,036,832	0.013	-4.313			169	13,884	
2/27/2017	132	10,065	1,036,832	0.010	-4.635			132	10,065	
2/28/2017	296	20,740	1,036,832	0.020	-3.912			296	20,740	
3/1/2017	30,214	5,052,830	1,036,832	4.873	1.584			30,214	5,052,830	1
3/2/2017	4,811	555,034	1,036,832	0.535	-0.625			4,811	555,034	
3/3/2017	968	111,611	1,036,832	0.108	-2.229			968	111,611	
3/4/2017	2,092	447,731	1,036,832	0.432	-0.840	1,297	399,222	795	48,509	
3/5/2017	243	17,686	1,036,832	0.017	-4.071			243	17,686	
3/6/2017	1,535	139,980	1,036,832	0.135	-2.002			1,535	139,980	
3/7/2017	6,453	680,030	1,036,832	0.656	-0.422			6,453	680,030	
3/8/2017	87,269	37,287,192	1,036,832	35.963	3.582	8,948	1,283,168	78,321	36,004,024	1
3/9/2017	1,248	231,197	1,036,832	0.223	-1.501			1,248	231,197	
3/10/2017	2,472	510,028	1,036,832	0.492	-0.709			2,472	510,028	
3/11/2017	567	49,165	1,036,832	0.047	-3.049			567	49,165	
3/12/2017	456	64,655	1,036,832	0.062	-2.775			456	64,655	
3/13/2017	104	13,454	1,036,832	0.013	-4.345			104	13,454	
3/14/2017	2,483	235,628	1,036,832	0.227	-1.482			2,483	235,628	
3/15/2017	4,955	890,542	1,036,832	0.859	-0.152	4,359	823,511	596	67,031	
3/16/2017	1,996	51,029	1,036,832	0.049	-3.012			1,996	51,029	
3/17/2017	337	33,991	1,036,832	0.033	-3.418			337	33,991	
3/18/2017	2,064	160,966	1,036,832	0.155	-1.863			2,064	160,966	
3/19/2017	1,759	192,764	1,036,832	0.186	-1.682			1,759	192,764	
3/20/2017	1,203	83,171	1,036,832	0.080	-2.523			1,203	83,171	
3/21/2017	758	85,217	1,036,832	0.082	-2.499			758	85,217	
3/22/2017	464	56,760	1,036,832	0.055	-2.905			464	56,760	
3/23/2017	627	59,671	1,036,832	0.058	-2.855			627	59,671	
3/24/2017	1,768	86,395	1,036,832	0.083	-2.485			1,768	86,395	
3/25/2017	1,525	128,470	1,036,832	0.124	-2.088			1,525	128,470	
3/26/2017	325	66,279	1,036,832	0.064	-2.750			325	66,279	
3/27/2017	350	24,860	1,036,832	0.024	-3.731			350	24,860	
3/28/2017	729	119,456	1,036,832	0.115	-2.161			729	119,456	
3/29/2017	206	33,810	1,036,832	0.033	-3.423			206	33,810	
3/30/2017	2,010	294,004	1,036,832	0.284	-1.260	1,313	216,645	697	77,359	
3/31/2017	1,566	148,646	1,036,832	0.143	-1.942			1,566	148,646	
4/1/2017	602	60,952	1,036,832	0.059	-2.834			602	60,952	
4/2/2017	507	53,773	1,036,832	0.052	-2.959			507	53,773	
4/3/2017	1,304	78,082	1,036,832	0.075	-2.586			1,304	78,082	
4/4/2017	10,508	350,168	1,036,832	0.338	-1.086	7,810	156,200	2,698	193,968	
4/5/2017	10,165	1,554,578	1,036,832	1.499	0.405	6,870	562,246	3,295	992,332	
4/6/2017	4,417	615,819	1,036,832	0.594	-0.521			4,417	615,819	
4/7/2017	36,177	2,458,704	1,036,832	2.371	0.863	25,991	946,696	10,186	1,512,008	
4/8/2017	770	72,852	1,036,832	0.070	-2.655			770	72,852	
4/9/2017	533	68,569	1,036,832	0.066	-2.716			533	68,569	
4/10/2017	1,056	75,857	1,036,832	0.073	-2.615			1,056	75,857	
4/11/2017	6,204	622,156	1,036,832	0.600	-0.511			6,204	622,156	
4/12/2017	1,487	88,577	1,036,832	0.085	-2.460			1,487	88,577	
4/13/2017	921	66,557	1,036,832	0.064	-2.746			921	66,557	
4/14/2017	930	73,823	1,036,832	0.071	-2.642			930	73,823	
4/15/2017	8,707	972,692	1,036,832	0.938	-0.064			8,707	972,692	
4/16/2017	2,784	241,875	1,036,832	0.233	-1.456			2,784	241,875	
4/17/2017	5,555	184,403	1,036,832	0.178	-1.727	5,203	151,347	352	33,056	
4/18/2017	876	84,900	1,036,832	0.082	-2.502			876	84,900	
4/19/2017	839	200,775	1,036,832	0.194	-1.642			839	200,775	
4/20/2017	1,297	269,695	1,036,832	0.260	-1.347			1,297	269,695	
4/21/2017	955	81,272	1,036,832	0.078	-2.546			955	81,272	
4/22/2017	4,601	478,294	1,036,832	0.461	-0.774			4,601	478,294	
4/23/2017	1,029	60,265	1,036,832	0.058	-2.845			1,029	60,265	
4/24/2017	373	34,717	1,036,832	0.033	-3.397			373	34,717	
4/25/2017	5,435	195,749	1,036,832	0.189	-1.667	3,047	101,226	2,388	94,523	
4/26/2017	272	26,269	1,036,832	0.025	-3.676			272	26,269	
4/27/2017	1,983	268,516	1,036,832	0.259	-1.351			1,983	268,516	

YEAR	Alpha	Beta	TMED NEW RULE
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Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
4/28/2017	3,029	144,228	1,036,832	0.139	-1.973			3,029	144,228	
4/29/2017	1,864	180,244	1,036,832	0.174	-1.750			1,864	180,244	
4/30/2017	7,293	716,114	1,036,832	0.691	-0.370			7,293	716,114	
5/1/2017	34,946	16,301,858	1,036,832	15.723	2.755			34,946	16,301,858	1
5/2/2017	7,271	1,335,362	1,036,832	1.288	0.253			7,271	1,335,362	
5/3/2017	3,278	263,505	1,036,832	0.254	-1.370			3,278	263,505	
5/4/2017	430	72,197	1,036,832	0.070	-2.665			430	72,197	
5/5/2017	7,218	610,180	1,036,832	0.589	-0.530			7,218	610,180	
5/6/2017	1,705	207,813	1,036,832	0.200	-1.607			1,705	207,813	
5/7/2017	1,844	356,814	1,036,832	0.344	-1.067			1,844	356,814	
5/8/2017	751	60,758	1,036,832	0.059	-2.837			751	60,758	
5/9/2017	1,507	153,568	1,036,832	0.148	-1.910			1,507	153,568	
5/10/2017	4,206	317,379	1,036,832	0.306	-1.184			4,206	317,379	
5/11/2017	450	41,521	1,036,832	0.040	-3.218			450	41,521	
5/12/2017	592	77,569	1,036,832	0.075	-2.593			592	77,569	
5/13/2017	10,212	1,460,945	1,036,832	1.409	0.343			10,212	1,460,945	
5/14/2017	1,948	214,643	1,036,832	0.207	-1.575			1,948	214,643	
5/15/2017	1,084	234,975	1,036,832	0.227	-1.484			1,084	234,975	
5/16/2017	6,265	421,703	1,036,832	0.407	-0.900			6,265	421,703	
5/17/2017	7,004	648,291	1,036,832	0.625	-0.470			7,004	648,291	
5/18/2017	5,830	755,005	1,036,832	0.728	-0.317			5,830	755,005	
5/19/2017	2,686	192,621	1,036,832	0.186	-1.683			2,686	192,621	
5/20/2017	3,593	279,837	1,036,832	0.270	-1.310			3,593	279,837	
5/21/2017	9,201	546,151	1,036,832	0.527	-0.641			9,201	546,151	
5/22/2017	4,320	532,193	1,036,832	0.513	-0.667			4,320	532,193	
5/23/2017	275	31,981	1,036,832	0.031	-3.479			275	31,981	
5/24/2017	3,506	291,186	1,036,832	0.281	-1.270			3,506	291,186	
5/25/2017	5,155	461,574	1,036,832	0.445	-0.809			5,155	461,574	
5/26/2017	5,486	777,429	1,036,832	0.750	-0.288			5,486	777,429	
5/27/2017	11,319	640,866	1,036,832	0.618	-0.481			11,319	640,866	
5/28/2017	3,203	452,017	1,036,832	0.436	-0.830			3,203	452,017	
5/29/2017	4,958	832,734	1,036,832	0.803	-0.219			4,958	832,734	
5/30/2017	1,145	114,127	1,036,832	0.110	-2.207			1,145	114,127	
5/31/2017	3,238	311,934	1,036,832	0.301	-1.201			3,238	311,934	
6/1/2017	1,328	100,563	1,036,832	0.097	-2.333			1,328	100,563	
6/2/2017	3,881	235,133	1,036,832	0.227	-1.484			3,881	235,133	
6/3/2017	3,844	157,379	1,036,832	0.152	-1.885	3,250	82,762	594	74,617	
6/4/2017	1,986	296,421	1,036,832	0.286	-1.252			1,986	296,421	
6/5/2017	2,861	181,835	1,036,832	0.175	-1.741			2,861	181,835	
6/6/2017	1,955	154,215	1,036,832	0.149	-1.906			1,955	154,215	
6/7/2017	941	77,866	1,036,832	0.075	-2.589			941	77,866	
6/8/2017	1,931	295,678	1,036,832	0.285	-1.255			1,931	295,678	
6/9/2017	920	85,877	1,036,832	0.083	-2.491			920	85,877	
6/10/2017	1,791	166,292	1,036,832	0.160	-1.830			1,791	166,292	
6/11/2017	6,514	626,609	1,036,832	0.604	-0.504			6,514	626,609	
6/12/2017	18,364	681,958	1,036,832	0.658	-0.419	15,783	459,087	2,581	222,871	
6/13/2017	4,027	487,318	1,036,832	0.470	-0.755			4,027	487,318	
6/14/2017	8,750	827,284	1,036,832	0.798	-0.226	4,388	359,816	4,362	467,468	
6/15/2017	5,995	409,820	1,036,832	0.395	-0.928			5,995	409,820	
6/16/2017	8,112	493,323	1,036,832	0.476	-0.743			8,112	493,323	
6/17/2017	2,890	457,728	1,036,832	0.441	-0.818			2,890	457,728	
6/18/2017	9,810	1,382,417	1,036,832	1.333	0.288			9,810	1,382,417	
6/19/2017	11,849	1,737,040	1,036,832	1.675	0.516			11,849	1,737,040	
6/20/2017	1,725	182,871	1,036,832	0.176	-1.735			1,725	182,871	
6/21/2017	4,324	346,426	1,036,832	0.334	-1.096			4,324	346,426	
6/22/2017	640	66,333	1,036,832	0.064	-2.749			640	66,333	
6/23/2017	4,598	746,093	1,036,832	0.720	-0.329			4,598	746,093	
6/24/2017	1,774	184,780	1,036,832	0.178	-1.725			1,774	184,780	
6/25/2017	3,173	410,623	1,036,832	0.396	-0.926			3,173	410,623	
6/26/2017	918	116,633	1,036,832	0.112	-2.185			918	116,633	
6/27/2017	4,782	428,851	1,036,832	0.414	-0.883			4,782	428,851	
6/28/2017	1,448	132,994	1,036,832	0.128	-2.054			1,448	132,994	
6/29/2017	12,525	1,766,638	1,036,832	1.704	0.533			12,525	1,766,638	
6/30/2017	7,014	1,035,409	1,036,832	0.999	-0.001			7,014	1,035,409	
7/1/2017	15,279	915,612	1,036,832	0.883	-0.124	5,375	37,382	9,904	878,230	
7/2/2017	2,143	178,628	1,036,832	0.172	-1.759			2,143	178,628	
7/3/2017	3,931	385,006	1,036,832	0.371	-0.991			3,931	385,006	
7/4/2017	1,106	173,429	1,036,832	0.167	-1.788			1,106	173,429	
7/5/2017	2,499	238,076	1,036,832	0.230	-1.471			2,499	238,076	
7/6/2017	3,118	232,245	1,036,832	0.224	-1.496			3,118	232,245	
7/7/2017	9,468	1,320,457	1,036,832	1.274	0.242			9,468	1,320,457	
7/8/2017	636	77,905	1,036,832	0.075	-2.588			636	77,905	
7/9/2017	1,875	165,478	1,036,832	0.160	-1.835			1,875	165,478	
7/10/2017	20,412	1,672,773	1,036,832	1.613	0.478	3,901	300,377	16,511	1,372,396	
7/11/2017	7,692	807,332	1,036,832	0.779	-0.250			7,692	807,332	
7/12/2017	2,967	412,441	1,036,832	0.398	-0.922			2,967	412,441	
7/13/2017	11,398	562,406	1,036,832	0.542	-0.612	8,714	130,710	2,684	431,696	
7/14/2017	2,317	148,304	1,036,832	0.143	-1.945			2,317	148,304	
7/15/2017	5,896	434,320	1,036,832	0.419	-0.870			5,896	434,320	
7/16/2017	1,359	132,715	1,036,832	0.128	-2.056			1,359	132,715	
7/17/2017	3,866	314,962	1,036,832	0.304	-1.191			3,866	314,962	
7/18/2017	2,427	110,077	1,036,832	0.106	-2.243			2,427	110,077	
7/19/2017	2,630	220,191	1,036,832	0.212	-1.549			2,630	220,191	
7/20/2017	2,388	155,986	1,036,832	0.150	-1.894			2,388	155,986	
7/21/2017	2,825	508,817	1,036,832	0.491	-0.712			2,825	508,817	
7/22/2017	10,714	700,875	1,036,832	0.676	-0.392	7,378	118,262	3,336	582,613	
7/23/2017	3,154	362,103	1,036,832	0.349	-1.052			3,154	362,103	
7/24/2017	1,511	155,847	1,036,832	0.150	-1.895			1,511	155,847	
7/25/2017	7,131	318,187	1,036,832	0.307	-1.181	4,296	151,930	2,835	166,257	
7/26/2017	1,830	67,006	1,036,832	0.065	-2.739			1,830	67,006	
7/27/2017	1,928	156,137	1,036,832	0.151	-1.893			1,928	156,137	
7/28/2017	4,668	595,710	1,036,832	0.575	-0.554			4,668	595,710	
7/29/2017	1,930	314,135	1,036,832	0.303	-1.194			1,930	314,135	
7/30/2017	11,572	374,520	1,036,832	0.361	-1.018	9,245	184,645	2,327	189,875	
7/31/2017	5,348	343,969	1,036,832	0.332	-1.103			5,348	343,969	
8/1/2017	2,106	457,818	1,036,832	0.442	-0.817			2,106	457,818	
8/2/2017	3,946	463,798	1,036,832	0.447	-0.804			3,946	463,798	
8/3/2017	2,511	240,081	1,036,832	0.232	-1.463			2,511	240,081	
8/4/2017	45,454	15,605,349	1,036,832	15.051	2.711	8,824	996,490	36,630	14,608,859	1
8/5/2017	2,308	187,582	1,036,832	0.181	-1.710			2,308	187,582	
8/6/2017	8,911	837,139	1,036,832	0.807	-0.214			8,911	837,139	
8/7/2017	221	29,691	1,036,832	0.029	-3.553			221	29,691	
8/8/2017	745	70,909	1,036,832	0.068	-2.683			745	70,909	
8/9/2017	900	55,770	1,036,832	0.054	-2.923			900	55,770	
8/10/2017	3,130	104,572	1,036,832	0.101	-2.294			3,130	104,572	
8/11/2017	3,227	340,042	1,036,832	0.328	-1.115			3,227	340,042	
8/12/2017	768	80,638	1,036,832	0.078	-2.554			768	80,638	
8/13/2017	611	109,274	1,036,832	0.105	-2.250			611	109,274	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
8/14/2017	2,588	381,870	1,036,832	0.368	-0.999			2,588	381,870	
8/15/2017	5,273	681,116	1,036,832	0.657	-0.420			5,273	681,116	
8/16/2017	712	42,673	1,036,832	0.041	-3.190			712	42,673	
8/17/2017	5,802	625,026	1,036,832	0.603	-0.506			5,802	625,026	
8/18/2017	2,207	356,815	1,036,832	0.344	-1.067			2,207	356,815	
8/19/2017	1,371	75,883	1,036,832	0.073	-2.615			1,371	75,883	
8/20/2017	878	93,462	1,036,832	0.090	-2.406			878	93,462	
8/21/2017	2,098	366,101	1,036,832	0.353	-1.041			2,098	366,101	
8/22/2017	995	106,567	1,036,832	0.103	-2.275			995	106,567	
8/23/2017	788	123,701	1,036,832	0.119	-2.126			788	123,701	
8/24/2017	790	78,019	1,036,832	0.075	-2.587			790	78,019	
8/25/2017	3,577	85,985	1,036,832	0.083	-2.490	3,042	36,504	535	49,481	
8/26/2017	696	78,201	1,036,832	0.075	-2.585			696	78,201	
8/27/2017	499	46,072	1,036,832	0.044	-3.114			499	46,072	
8/28/2017	2,675	189,971	1,036,832	0.183	-1.697			2,675	189,971	
8/29/2017	2,729	263,460	1,036,832	0.254	-1.370			2,729	263,460	
8/30/2017	551	93,050	1,036,832	0.090	-2.411			551	93,050	
8/31/2017	1,241	129,270	1,036,832	0.125	-2.082			1,241	129,270	
9/1/2017	924	129,710	1,036,832	0.125	-2.079			924	129,710	
9/2/2017	1,002	105,873	1,036,832	0.102	-2.282			1,002	105,873	
9/3/2017	1,253	92,890	1,036,832	0.090	-2.413			1,253	92,890	
9/4/2017	10,220	2,963,812	1,036,832	2.859	1.050			10,220	2,963,812	
9/5/2017	10,316	1,882,520	1,036,832	1.816	0.596	7,013	1,319,461	3,303	563,059	
9/6/2017	425	50,990	1,036,832	0.049	-3.012			425	50,990	
9/7/2017	787	84,971	1,036,832	0.082	-2.502			787	84,971	
9/8/2017	887	105,082	1,036,832	0.101	-2.289			887	105,082	
9/9/2017	900	101,455	1,036,832	0.098	-2.324			900	101,455	
9/10/2017	730	76,852	1,036,832	0.074	-2.602			730	76,852	
9/11/2017	1,601	122,496	1,036,832	0.118	-2.136			1,601	122,496	
9/12/2017	3,268	174,355	1,036,832	0.168	-1.783			3,268	174,355	
9/13/2017	939	114,621	1,036,832	0.111	-2.202			939	114,621	
9/14/2017	534	64,332	1,036,832	0.062	-2.780			534	64,332	
9/15/2017	548	38,472	1,036,832	0.037	-3.294			548	38,472	
9/16/2017	3,494	186,766	1,036,832	0.180	-1.714	3,131	131,502	363	55,264	
9/17/2017	528	89,454	1,036,832	0.086	-2.450			528	89,454	
9/18/2017	988	71,891	1,036,832	0.069	-2.669			988	71,891	
9/19/2017	671	51,247	1,036,832	0.049	-3.007			671	51,247	
9/20/2017	3,365	408,031	1,036,832	0.394	-0.933			3,365	408,031	
9/21/2017	1,854	151,181	1,036,832	0.146	-1.925			1,854	151,181	
9/22/2017	4,655	334,454	1,036,832	0.323	-1.131			4,655	334,454	
9/23/2017	1,620	282,848	1,036,832	0.273	-1.299			1,620	282,848	
9/24/2017	821	88,393	1,036,832	0.085	-2.462	22	5,984	799	82,409	
9/25/2017	2,541	180,089	1,036,832	0.174	-1.750			2,541	180,089	
9/26/2017	2,575	243,873	1,036,832	0.235	-1.447			2,575	243,873	
9/27/2017	657	63,424	1,036,832	0.061	-2.794			657	63,424	
9/28/2017	518	45,230	1,036,832	0.044	-3.132			518	45,230	
9/29/2017	910	95,086	1,036,832	0.092	-2.389			910	95,086	
9/30/2017	3,106	220,280	1,036,832	0.212	-1.549			3,106	220,280	
10/1/2017	591	56,444	1,036,832	0.054	-2.911			591	56,444	
10/2/2017	3,875	609,417	1,036,832	0.588	-0.531			3,875	609,417	
10/3/2017	1,267	138,539	1,036,832	0.134	-2.013			1,267	138,539	
10/4/2017	931	131,057	1,036,832	0.126	-2.068			931	131,057	
10/5/2017	6,781	211,016	1,036,832	0.204	-1.592	4,262	46,882	2,519	164,134	
10/6/2017	741	86,650	1,036,832	0.084	-2.482			741	86,650	
10/7/2017	2,318	149,389	1,036,832	0.144	-1.937			2,318	149,389	
10/8/2017	1,843	314,894	1,036,832	0.304	-1.192			1,843	314,894	
10/9/2017	3,878	566,844	1,036,832	0.547	-0.604			3,878	566,844	
10/10/2017	4,149	218,686	1,036,832	0.211	-1.556			4,149	218,686	
10/11/2017	3,187	327,059	1,036,832	0.315	-1.154			3,187	327,059	
10/12/2017	3,988	213,901	1,036,832	0.206	-1.578			3,988	213,901	
10/13/2017	11,125	928,722	1,036,832	0.896	-0.110			11,125	928,722	
10/14/2017	1,067	105,298	1,036,832	0.102	-2.287			1,067	105,298	
10/15/2017	8,716	946,388	1,036,832	0.913	-0.091			8,716	946,388	
10/16/2017	1,096	115,618	1,036,832	0.112	-2.194			1,096	115,618	
10/17/2017	697	65,831	1,036,832	0.063	-2.757			697	65,831	
10/18/2017	1,854	223,420	1,036,832	0.215	-1.535			1,854	223,420	
10/19/2017	1,428	124,595	1,036,832	0.120	-2.119			1,428	124,595	
10/20/2017	1,189	85,391	1,036,832	0.082	-2.497			1,189	85,391	
10/21/2017	898	77,214	1,036,832	0.074	-2.597			898	77,214	
10/22/2017	874	98,866	1,036,832	0.095	-2.350			874	98,866	
10/23/2017	5,548	795,611	1,036,832	0.767	-0.265			5,548	795,611	
10/24/2017	4,132	260,866	1,036,832	0.252	-1.380			4,132	260,866	
10/25/2017	1,287	87,032	1,036,832	0.084	-2.478			1,287	87,032	
10/26/2017	1,760	238,276	1,036,832	0.230	-1.470			1,760	238,276	
10/27/2017	632	34,236	1,036,832	0.033	-3.411			632	34,236	
10/28/2017	666	44,380	1,036,832	0.043	-3.151			666	44,380	
10/29/2017	5,624	242,360	1,036,832	0.234	-1.454			5,624	242,360	
10/30/2017	532	74,679	1,036,832	0.072	-2.631			532	74,679	
10/31/2017	851	96,215	1,036,832	0.093	-2.377			851	96,215	
11/1/2017	1,419	184,871	1,036,832	0.178	-1.724			1,419	184,871	
11/2/2017	1,321	153,661	1,036,832	0.148	-1.909			1,321	153,661	
11/3/2017	2,778	203,421	1,036,832	0.196	-1.629			2,778	203,421	
11/4/2017	1,532	185,702	1,036,832	0.179	-1.720			1,532	185,702	
11/5/2017	101,419	103,406,152	1,036,832	99.733	4.602	19,918	26,004,008	81,501	77,402,144	1
11/6/2017	4,194	1,240,174	1,036,832	1.196	0.179			4,194	1,240,174	
11/7/2017	3,321	756,494	1,036,832	0.730	-0.315			3,321	756,494	
11/8/2017	4,389	608,164	1,036,832	0.587	-0.533			4,389	608,164	
11/9/2017	1,603	163,382	1,036,832	0.158	-1.848			1,603	163,382	
11/10/2017	1,189	92,434	1,036,832	0.089	-2.417			1,189	92,434	
11/11/2017	870	140,499	1,036,832	0.136	-1.999			870	140,499	
11/12/2017	767	91,426	1,036,832	0.088	-2.428			767	91,426	
11/13/2017	1,716	481,645	1,036,832	0.465	-0.767			1,716	481,645	
11/14/2017	3,046	87,279	1,036,832	0.084	-2.475			3,046	87,279	
11/15/2017	2,315	124,668	1,036,832	0.120	-2.118			2,315	124,668	
11/16/2017	513	39,608	1,036,832	0.038	-3.265			513	39,608	
11/17/2017	444	28,247	1,036,832	0.027	-3.603			444	28,247	
11/18/2017	8,829	1,196,933	1,036,832	1.154	0.144			8,829	1,196,933	
11/19/2017	2,236	276,153	1,036,832	0.266	-1.323			2,236	276,153	
11/20/2017	423	27,751	1,036,832	0.027	-3.621			423	27,751	
11/21/2017	15,187	563,899	1,036,832	0.544	-0.609			15,187	563,899	
11/22/2017	16,699	2,918,669	1,036,832	2.815	1.035	12,372	2,534,960	4,327	383,709	
11/23/2017	876	68,318	1,036,832	0.066	-2.720			876	68,318	
11/24/2017	14,106	582,347	1,036,832	0.562	-0.577	12,372	533,912	1,734	48,435	
11/25/2017	665	48,005	1,036,832	0.046	-3.073			665	48,005	
11/26/2017	17,239	976,242	1,036,832	0.942	-0.060			17,239	976,242	
11/27/2017	2,626	217,675	1,036,832	0.210	-1.561			2,626	217,675	
11/28/2017	824	67,405	1,036,832	0.065	-2.733			824	67,405	
11/29/2017	996	73,902	1,036,832	0.071	-2.641			996	73,902	

YEAR	Alpha	Beta	TMED NEW RULE
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Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
11/30/2017	843	80,085	1,036,832	0.077	-2.561			843	80,085	
12/1/2017	8,636	398,688	1,036,832	0.385	-0.956			8,636	398,688	
12/2/2017	1,219	77,129	1,036,832	0.074	-2.598			1,219	77,129	
12/3/2017	788	66,215	1,036,832	0.064	-2.751			788	66,215	
12/4/2017	9,006	642,407	1,036,832	0.620	-0.479			9,006	642,407	
12/5/2017	3,903	385,661	1,036,832	0.372	-0.989			3,903	385,661	
12/6/2017	6,885	137,835	1,036,832	0.133	-2.018			6,885	137,835	
12/7/2017	545	49,793	1,036,832	0.048	-3.036			545	49,793	
12/8/2017	981	118,342	1,036,832	0.114	-2.170			981	118,342	
12/9/2017	436	54,628	1,036,832	0.053	-2.943			436	54,628	
12/10/2017	1,073	60,177	1,036,832	0.058	-2.847			1,073	60,177	
12/11/2017	300	38,354	1,036,832	0.037	-3.297			300	38,354	
12/12/2017	285	56,771	1,036,832	0.055	-2.905			285	56,771	
12/13/2017	4,837	499,893	1,036,832	0.482	-0.730	3,046	344,198	1,791	155,695	
12/14/2017	253	49,945	1,036,832	0.048	-3.033			253	49,945	
12/15/2017	373	49,472	1,036,832	0.048	-3.043			373	49,472	
12/16/2017	145	13,407	1,036,832	0.013	-4.348			145	13,407	
12/17/2017	669	69,310	1,036,832	0.067	-2.705			669	69,310	
12/18/2017	800	140,666	1,036,832	0.136	-1.998			800	140,666	
12/19/2017	463	37,994	1,036,832	0.037	-3.306			463	37,994	
12/20/2017	697	42,339	1,036,832	0.041	-3.198			697	42,339	
12/21/2017	329	23,416	1,036,832	0.023	-3.791			329	23,416	
12/22/2017	3,924	318,314	1,036,832	0.307	-1.181			3,924	318,314	
12/23/2017	12,073	1,485,711	1,036,832	1.433	0.360			12,073	1,485,711	
12/24/2017	276	38,735	1,036,832	0.037	-3.287			276	38,735	
12/25/2017	2,668	1,533,204	1,036,832	1.479	0.391			2,668	1,533,204	
12/26/2017	8,252	1,530,514	1,036,832	1.476	0.389			8,252	1,530,514	
12/27/2017	3,672	481,458	1,036,832	0.464	-0.767			3,672	481,458	
12/28/2017	478	58,902	1,036,832	0.057	-2.868			478	58,902	
12/29/2017	227	27,703	1,036,832	0.027	-3.622			227	27,703	
12/30/2017	171	20,325	1,036,832	0.020	-3.932			171	20,325	
12/31/2017	1,451	150,207	1,036,832	0.145	-1.932			1,451	150,207	
1/1/2018	157	23,613	1,040,109	0.023	-3.785			157	23,613	
1/2/2018	360	50,412	1,040,109	0.048	-3.027			360	50,412	
1/3/2018	1,073	134,233	1,040,109	0.129	-2.048			1,073	134,233	
1/4/2018	2,173	160,457	1,040,109	0.154	-1.869			2,173	160,457	
1/5/2018	1,614	120,644	1,040,109	0.116	-2.154			1,614	120,644	
1/6/2018	1,258	124,174	1,040,109	0.119	-2.125			1,258	124,174	
1/7/2018	813	134,695	1,040,109	0.130	-2.044			813	134,695	
1/8/2018	1,745	98,299	1,040,109	0.095	-2.359			1,745	98,299	
1/9/2018	226	26,451	1,040,109	0.025	-3.672			226	26,451	
1/10/2018	554	61,135	1,040,109	0.059	-2.834			554	61,135	
1/11/2018	951	102,303	1,040,109	0.098	-2.319			951	102,303	
1/12/2018	4,780	476,955	1,040,109	0.459	-0.780			4,780	476,955	
1/13/2018	1,681	232,611	1,040,109	0.224	-1.498			1,681	232,611	
1/14/2018	1,430	53,360	1,040,109	0.051	-2.970			1,430	53,360	
1/15/2018	685	104,711	1,040,109	0.101	-2.296			685	104,711	
1/16/2018	259	26,329	1,040,109	0.025	-3.676			259	26,329	
1/17/2018	2,099	451,986	1,040,109	0.435	-0.833			2,099	451,986	
1/18/2018	164	13,806	1,040,109	0.013	-4.322			164	13,806	
1/19/2018	437	32,350	1,040,109	0.031	-3.470			437	32,350	
1/20/2018	2,964	139,812	1,040,109	0.134	-2.007			2,964	139,812	
1/21/2018	138	12,932	1,040,109	0.012	-4.387			138	12,932	
1/22/2018	5,452	530,233	1,040,109	0.510	-0.674			5,452	530,233	
1/23/2018	7,583	1,118,676	1,040,109	1.076	0.073			7,583	1,118,676	
1/24/2018	2,268	206,345	1,040,109	0.198	-1.618			2,268	206,345	
1/25/2018	44	3,990	1,040,109	0.004	-5.563			44	3,990	
1/26/2018	616	45,865	1,040,109	0.044	-3.121			616	45,865	
1/27/2018	684	82,692	1,040,109	0.080	-2.532			684	82,692	
1/28/2018	670	77,863	1,040,109	0.075	-2.592			670	77,863	
1/29/2018	4,694	300,100	1,040,109	0.289	-1.243			4,694	300,100	
1/30/2018	186	25,229	1,040,109	0.024	-3.719			186	25,229	
1/31/2018	636	92,034	1,040,109	0.088	-2.425			636	92,034	
2/1/2018	1,138	82,561	1,040,109	0.079	-2.534			1,138	82,561	
2/2/2018	857	102,802	1,040,109	0.099	-2.314			857	102,802	
2/3/2018	2,441	93,621	1,040,109	0.090	-2.408			2,441	93,621	
2/4/2018	1,704	120,156	1,040,109	0.116	-2.158			1,704	120,156	
2/5/2018	1,554	296,608	1,040,109	0.285	-1.255			1,554	296,608	
2/6/2018	5,451	113,460	1,040,109	0.109	-2.216	5,279	83,838	172	29,622	
2/7/2018	123	11,150	1,040,109	0.011	-4.536			123	11,150	
2/8/2018	252	48,497	1,040,109	0.047	-3.066			252	48,497	
2/9/2018	2,044	58,115	1,040,109	0.056	-2.885			2,044	58,115	
2/10/2018	814	39,599	1,040,109	0.038	-3.268			814	39,599	
2/11/2018	4,187	336,759	1,040,109	0.324	-1.128			4,187	336,759	
2/12/2018	1,502	110,106	1,040,109	0.106	-2.246			1,502	110,106	
2/13/2018	171	14,370	1,040,109	0.014	-4.282			171	14,370	
2/14/2018	575	108,719	1,040,109	0.105	-2.258			575	108,719	
2/15/2018	5,959	716,118	1,040,109	0.689	-0.373			5,959	716,118	
2/16/2018	2,595	371,670	1,040,109	0.357	-1.029			2,595	371,670	
2/17/2018	306	20,066	1,040,109	0.019	-3.948			306	20,066	
2/18/2018	254	26,859	1,040,109	0.026	-3.656			254	26,859	
2/19/2018	1,350	222,862	1,040,109	0.214	-1.541			1,350	222,862	
2/20/2018	1,408	94,002	1,040,109	0.090	-2.404			1,408	94,002	
2/21/2018	1,024	117,709	1,040,109	0.113	-2.179			1,024	117,709	
2/22/2018	1,548	119,211	1,040,109	0.115	-2.166			1,548	119,211	
2/23/2018	571	49,892	1,040,109	0.048	-3.037			571	49,892	
2/24/2018	951	75,371	1,040,109	0.072	-2.625			951	75,371	
2/25/2018	8,167	1,135,927	1,040,109	1.092	0.088			8,167	1,135,927	
2/26/2018	408	22,423	1,040,109	0.022	-3.837			408	22,423	
2/27/2018	3,557	233,706	1,040,109	0.225	-1.493			3,557	233,706	
2/28/2018	715	60,800	1,040,109	0.058	-2.839			715	60,800	
3/1/2018	44,804	13,938,567	1,040,109	13.401	2.595	7,507	810,735	37,297	13,127,832	1
3/2/2018	8,450	1,766,353	1,040,109	1.698	0.530			8,450	1,766,353	
3/3/2018	735	68,273	1,040,109	0.066	-2.724			735	68,273	
3/4/2018	1,529	126,357	1,040,109	0.121	-2.108			1,529	126,357	
3/5/2018	4,851	517,642	1,040,109	0.498	-0.698			4,851	517,642	
3/6/2018	1,581	208,011	1,040,109	0.200	-1.609			1,581	208,011	
3/7/2018	8,016	440,515	1,040,109	0.424	-0.859	6,346	295,056	1,670	145,459	
3/8/2018	71	10,247	1,040,109	0.010	-4.620			71	10,247	
3/9/2018	220	45,331	1,040,109	0.044	-3.133			220	45,331	
3/10/2018	658	54,031	1,040,109	0.052	-2.958			658	54,031	
3/11/2018	405	46,135	1,040,109	0.044	-3.116			405	46,135	
3/12/2018	183	29,869	1,040,109	0.029	-3.550			183	29,869	
3/13/2018	358	25,996	1,040,109	0.025	-3.689			358	25,996	
3/14/2018	2,948	116,016	1,040,109	0.112	-2.193			2,948	116,016	
3/15/2018	237	33,952	1,040,109	0.033	-3.422			237	33,952	
3/16/2018	418	52,650	1,040,109	0.051	-2.983			418	52,650	
3/17/2018	804	75,876	1,040,109	0.073	-2.618			804	75,876	

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Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
3/18/2018	558	45,362	1,040,109	0.044	-3.132			558	45,362	
3/19/2018	332	46,010	1,040,109	0.044	-3.118			332	46,010	
3/20/2018	3,702	249,790	1,040,109	0.240	-1.426			3,702	249,790	
3/21/2018	872	65,479	1,040,109	0.063	-2.765			872	65,479	
3/22/2018	141	13,117	1,040,109	0.013	-4.373			141	13,117	
3/23/2018	379	43,998	1,040,109	0.042	-3.163			379	43,998	
3/24/2018	930	123,916	1,040,109	0.119	-2.127			930	123,916	
3/25/2018	1,739	189,909	1,040,109	0.183	-1.701			1,739	189,909	
3/26/2018	389	34,246	1,040,109	0.033	-3.414			389	34,246	
3/27/2018	730	75,149	1,040,109	0.072	-2.628			730	75,149	
3/28/2018	1,695	310,564	1,040,109	0.299	-1.209			1,695	310,564	
3/29/2018	10,616	2,103,711	1,040,109	2.023	0.704			10,616	2,103,711	
3/30/2018	2,508	129,294	1,040,109	0.124	-2.085			2,508	129,294	
3/31/2018	1,646	114,868	1,040,109	0.110	-2.203			1,646	114,868	
4/1/2018	2,083	194,826	1,040,109	0.187	-1.675			2,083	194,826	
4/2/2018	794	89,445	1,040,109	0.086	-2.453			794	89,445	
4/3/2018	3,628	824,348	1,040,109	0.793	-0.232			3,628	824,348	
4/4/2018	28,033	3,847,810	1,040,109	3.699	1.308	7,549	121,956	20,484	3,725,854	1
4/5/2018	9,262	570,913	1,040,109	0.549	-0.600	4,259	229,986	5,003	340,927	
4/6/2018	3,154	277,388	1,040,109	0.267	-1.322			3,154	277,388	
4/7/2018	2,646	209,439	1,040,109	0.201	-1.603			2,646	209,439	
4/8/2018	3,169	168,989	1,040,109	0.162	-1.817			3,169	168,989	
4/9/2018	1,066	47,412	1,040,109	0.046	-3.088			1,066	47,412	
4/10/2018	3,958	653,816	1,040,109	0.629	-0.464			3,958	653,816	
4/11/2018	848	37,019	1,040,109	0.036	-3.336			848	37,019	
4/12/2018	4,370	542,450	1,040,109	0.522	-0.651			4,370	542,450	
4/13/2018	1,454	120,010	1,040,109	0.115	-2.160			1,454	120,010	
4/14/2018	861	128,727	1,040,109	0.124	-2.089			861	128,727	
4/15/2018	6,531	1,248,031	1,040,109	1.200	0.182			6,531	1,248,031	
4/16/2018	10,873	1,519,767	1,040,109	1.461	0.379			10,873	1,519,767	
4/17/2018	6,424	314,867	1,040,109	0.303	-1.195			6,424	314,867	
4/18/2018	863	59,425	1,040,109	0.057	-2.862			863	59,425	
4/19/2018	4,970	449,839	1,040,109	0.432	-0.838			4,970	449,839	
4/20/2018	291	33,865	1,040,109	0.033	-3.425			291	33,865	
4/21/2018	530	51,720	1,040,109	0.050	-3.001			530	51,720	
4/22/2018	612	43,280	1,040,109	0.042	-3.179			612	43,280	
4/23/2018	1,662	175,214	1,040,109	0.168	-1.781			1,662	175,214	
4/24/2018	685	86,988	1,040,109	0.084	-2.481			685	86,988	
4/25/2018	812	58,226	1,040,109	0.056	-2.883			812	58,226	
4/26/2018	882	78,477	1,040,109	0.075	-2.584			882	78,477	
4/27/2018	18,368	6,716,431	1,040,109	6.457	1.865			18,368	6,716,431	1
4/28/2018	509	50,852	1,040,109	0.049	-3.018			509	50,852	
4/29/2018	350	31,465	1,040,109	0.030	-3.498			350	31,465	
4/30/2018	1,408	140,640	1,040,109	0.135	-2.001			1,408	140,640	
5/1/2018	945	86,945	1,040,109	0.084	-2.482			945	86,945	
5/2/2018	3,142	272,197	1,040,109	0.262	-1.341			3,142	272,197	
5/3/2018	8,360	555,009	1,040,109	0.534	-0.628			8,360	555,009	
5/4/2018	19,650	3,036,451	1,040,109	2.919	1.071			19,650	3,036,451	
5/5/2018	881	83,280	1,040,109	0.080	-2.525			881	83,280	
5/6/2018	15,754	1,003,399	1,040,109	0.965	-0.036	10,295	635,042	5,459	368,357	
5/7/2018	527	50,054	1,040,109	0.048	-3.034			527	50,054	
5/8/2018	1,090	119,093	1,040,109	0.115	-2.167			1,090	119,093	
5/9/2018	311	33,179	1,040,109	0.032	-3.445			311	33,179	
5/10/2018	4,099	437,792	1,040,109	0.421	-0.865			4,099	437,792	
5/11/2018	783	95,432	1,040,109	0.092	-2.389			783	95,432	
5/12/2018	2,411	250,503	1,040,109	0.241	-1.424			2,411	250,503	
5/13/2018	2,024	175,060	1,040,109	0.168	-1.782			2,024	175,060	
5/14/2018	7,276	1,315,207	1,040,109	1.264	0.235			7,276	1,315,207	
5/15/2018	7,217	681,452	1,040,109	0.655	-0.423			7,217	681,452	
5/16/2018	1,186	152,328	1,040,109	0.146	-1.921			1,186	152,328	
5/17/2018	3,920	413,253	1,040,109	0.397	-0.923			3,920	413,253	
5/18/2018	9,930	722,151	1,040,109	0.694	-0.365			9,930	722,151	
5/19/2018	11,303	552,414	1,040,109	0.531	-0.633			11,303	552,414	
5/20/2018	2,787	219,623	1,040,109	0.211	-1.555			2,787	219,623	
5/21/2018	6,332	774,781	1,040,109	0.745	-0.295			6,332	774,781	
5/22/2018	19,004	745,441	1,040,109	0.717	-0.333	14,982	161,289	4,022	584,152	
5/23/2018	1,875	234,836	1,040,109	0.226	-1.488			1,875	234,836	
5/24/2018	895	69,078	1,040,109	0.066	-2.712			895	69,078	
5/25/2018	3,900	434,080	1,040,109	0.417	-0.874	1,065	127,800	2,835	306,280	
5/26/2018	1,320	139,780	1,040,109	0.134	-2.007			1,320	139,780	
5/27/2018	4,422	260,645	1,040,109	0.251	-1.384			4,422	260,645	
5/28/2018	8,800	647,925	1,040,109	0.623	-0.473			8,800	647,925	
5/29/2018	9,460	1,214,846	1,040,109	1.168	0.155	3,950	82,560	5,510	1,132,286	
5/30/2018	13,924	1,504,314	1,040,109	1.446	0.369			13,924	1,504,314	
5/31/2018	4,070	380,869	1,040,109	0.366	-1.005			4,070	380,869	
6/1/2018	3,531	132,324	1,040,109	0.127	-2.062			3,531	132,324	
6/2/2018	1,279	139,714	1,040,109	0.134	-2.007			1,279	139,714	
6/3/2018	4,726	362,803	1,040,109	0.349	-1.053			4,726	362,803	
6/4/2018	4,352	296,049	1,040,109	0.285	-1.257	2,724	95,340	1,628	200,709	
6/5/2018	2,042	117,234	1,040,109	0.113	-2.183			2,042	117,234	
6/6/2018	2,228	202,593	1,040,109	0.195	-1.636			2,228	202,593	
6/7/2018	5,939	524,455	1,040,109	0.504	-0.685			5,939	524,455	
6/8/2018	2,054	301,524	1,040,109	0.290	-1.238			2,054	301,524	
6/9/2018	4,671	427,206	1,040,109	0.411	-0.890			4,671	427,206	
6/10/2018	6,680	448,068	1,040,109	0.431	-0.842			6,680	448,068	
6/11/2018	2,261	294,220	1,040,109	0.283	-1.263			2,261	294,220	
6/12/2018	2,769	289,110	1,040,109	0.278	-1.280			2,769	289,110	
6/13/2018	1,605	151,459	1,040,109	0.146	-1.927			1,605	151,459	
6/14/2018	5,322	441,923	1,040,109	0.425	-0.856			5,322	441,923	
6/15/2018	3,044	151,705	1,040,109	0.146	-1.925			3,044	151,705	
6/16/2018	1,440	132,117	1,040,109	0.127	-2.063			1,440	132,117	
6/17/2018	6,682	559,047	1,040,109	0.537	-0.621			6,682	559,047	
6/18/2018	2,874	298,884	1,040,109	0.287	-1.247			2,874	298,884	
6/19/2018	5,990	475,103	1,040,109	0.457	-0.784			5,990	475,103	
6/20/2018	5,826	216,047	1,040,109	0.208	-1.572			5,826	216,047	
6/21/2018	1,724	206,103	1,040,109	0.198	-1.619			1,724	206,103	
6/22/2018	10,682	664,907	1,040,109	0.639	-0.447			10,682	664,907	
6/23/2018	1,229	123,467	1,040,109	0.119	-2.131			1,229	123,467	
6/24/2018	5,530	521,026	1,040,109	0.501	-0.691			5,530	521,026	
6/25/2018	2,669	300,733	1,040,109	0.289	-1.241			2,669	300,733	
6/26/2018	1,451	137,262	1,040,109	0.132	-2.025			1,451	137,262	
6/27/2018	3,516	295,914	1,040,109	0.285	-1.257			3,516	295,914	
6/28/2018	1,805	203,061	1,040,109	0.195	-1.634			1,805	203,061	
6/29/2018	1,909	203,101	1,040,109	0.195	-1.633			1,909	203,101	
6/30/2018	3,293	360,352	1,040,109	0.346	-1.060			3,293	360,352	
7/1/2018	3,147	258,922	1,040,109	0.249	-1.391			3,147	258,922	
7/2/2018	2,147	352,571	1,040,109	0.339	-1.082			2,147	352,571	
7/3/2018	11,619	2,017,548	1,040,109	1.940	0.663	3,863	874,120	7,756	1,143,428	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
7/4/2018	5,479	432,836	1,040,109	0.416	-0.877			5,479	432,836	
7/5/2018	19,604	3,127,466	1,040,109	3.007	1.101	5,316	1,386,782	14,288	1,740,684	1
7/6/2018	4,329	559,476	1,040,109	0.538	-0.620			4,329	559,476	
7/7/2018	1,373	221,641	1,040,109	0.213	-1.546			1,373	221,641	
7/8/2018	746	81,737	1,040,109	0.079	-2.544			746	81,737	
7/9/2018	4,654	509,591	1,040,109	0.490	-0.713			4,654	509,591	
7/10/2018	2,871	342,378	1,040,109	0.329	-1.111			2,871	342,378	
7/11/2018	4,367	368,525	1,040,109	0.354	-1.038			4,367	368,525	
7/12/2018	733	100,717	1,040,109	0.097	-2.335			733	100,717	
7/13/2018	1,536	119,307	1,040,109	0.115	-2.165			1,536	119,307	
7/14/2018	3,550	306,524	1,040,109	0.295	-1.222			3,550	306,524	
7/15/2018	6,300	589,127	1,040,109	0.566	-0.568			6,300	589,127	
7/16/2018	3,404	494,851	1,040,109	0.476	-0.743			3,404	494,851	
7/17/2018	8,999	746,108	1,040,109	0.717	-0.332	3,208	51,328	5,791	694,780	
7/18/2018	867	94,784	1,040,109	0.091	-2.395			867	94,784	
7/19/2018	1,785	121,110	1,040,109	0.116	-2.150			1,785	121,110	
7/20/2018	4,338	446,425	1,040,109	0.429	-0.846			4,338	446,425	
7/21/2018	1,327	106,543	1,040,109	0.102	-2.279			1,327	106,543	
7/22/2018	5,792	413,155	1,040,109	0.397	-0.923			5,792	413,155	
7/23/2018	5,035	557,063	1,040,109	0.536	-0.624			5,035	557,063	
7/24/2018	3,832	468,346	1,040,109	0.450	-0.798			3,832	468,346	
7/25/2018	14,239	1,051,359	1,040,109	1.011	0.011	13,319	906,204	920	145,155	
7/26/2018	12,616	1,026,087	1,040,109	0.987	-0.014			12,616	1,026,087	
7/27/2018	9,129	779,250	1,040,109	0.749	-0.289			9,129	779,250	
7/28/2018	1,445	217,273	1,040,109	0.209	-1.566			1,445	217,273	
7/29/2018	2,761	385,361	1,040,109	0.371	-0.993			2,761	385,361	
7/30/2018	716	64,758	1,040,109	0.062	-2.776			716	64,758	
7/31/2018	8,042	757,003	1,040,109	0.728	-0.318	5,619	510,893	2,423	246,110	
8/1/2018	1,025	78,364	1,040,109	0.075	-2.586			1,025	78,364	
8/2/2018	868	56,037	1,040,109	0.054	-2.921			868	56,037	
8/3/2018	1,614	204,541	1,040,109	0.197	-1.626			1,614	204,541	
8/4/2018	1,300	204,449	1,040,109	0.197	-1.627			1,300	204,449	
8/5/2018	4,250	672,813	1,040,109	0.647	-0.436			4,250	672,813	
8/6/2018	26,649	4,935,840	1,040,109	4.746	1.557	20,522	3,735,664	6,127	1,200,176	1
8/7/2018	5,612	625,997	1,040,109	0.602	-0.508			5,612	625,997	
8/8/2018	2,450	237,959	1,040,109	0.229	-1.475			2,450	237,959	
8/9/2018	1,840	187,573	1,040,109	0.180	-1.713			1,840	187,573	
8/10/2018	2,279	253,838	1,040,109	0.244	-1.410			2,279	253,838	
8/11/2018	4,698	679,068	1,040,109	0.653	-0.426			4,698	679,068	
8/12/2018	2,955	275,455	1,040,109	0.265	-1.329			2,955	275,455	
8/13/2018	4,677	589,990	1,040,109	0.567	-0.567			4,677	589,990	
8/14/2018	586	60,920	1,040,109	0.059	-2.838			586	60,920	
8/15/2018	3,269	281,343	1,040,109	0.270	-1.308			3,269	281,343	
8/16/2018	4,047	396,809	1,040,109	0.382	-0.964			4,047	396,809	
8/17/2018	22,088	2,257,985	1,040,109	2.171	0.775	19,115	1,872,884	2,973	385,101	
8/18/2018	985	106,657	1,040,109	0.103	-2.277			985	106,657	
8/19/2018	1,698	72,728	1,040,109	0.070	-2.660			1,698	72,728	
8/20/2018	1,392	157,903	1,040,109	0.152	-1.885			1,392	157,903	
8/21/2018	8,259	1,163,363	1,040,109	1.119	0.112			8,259	1,163,363	
8/22/2018	12,833	654,408	1,040,109	0.629	-0.463	5,580	61,380	7,253	593,028	
8/23/2018	1,328	114,411	1,040,109	0.110	-2.207			1,328	114,411	
8/24/2018	10,138	431,926	1,040,109	0.415	-0.879	9,117	334,919	1,021	97,007	
8/25/2018	1,182	146,355	1,040,109	0.141	-1.961			1,182	146,355	
8/26/2018	8,439	980,647	1,040,109	0.943	-0.059			8,439	980,647	
8/27/2018	4,328	602,058	1,040,109	0.579	-0.547	2,755	429,308	1,573	172,750	
8/28/2018	2,654	183,768	1,040,109	0.177	-1.733			2,654	183,768	
8/29/2018	8,098	1,218,339	1,040,109	1.171	0.158			8,098	1,218,339	
8/30/2018	1,584	112,513	1,040,109	0.108	-2.224			1,584	112,513	
8/31/2018	1,427	210,983	1,040,109	0.203	-1.595			1,427	210,983	
9/1/2018	689	69,636	1,040,109	0.067	-2.704			689	69,636	
9/2/2018	1,794	198,723	1,040,109	0.191	-1.655			1,794	198,723	
9/3/2018	14,295	2,297,589	1,040,109	2.209	0.793			14,295	2,297,589	
9/4/2018	11,648	1,569,680	1,040,109	1.509	0.412			11,648	1,569,680	
9/5/2018	2,539	239,974	1,040,109	0.231	-1.467			2,539	239,974	
9/6/2018	7,013	570,933	1,040,109	0.549	-0.600			7,013	570,933	
9/7/2018	464	52,540	1,040,109	0.051	-2.986			464	52,540	
9/8/2018	2,796	337,807	1,040,109	0.325	-1.125			2,796	337,807	
9/9/2018	16,041	2,459,984	1,040,109	2.365	0.861			16,041	2,459,984	
9/10/2018	5,431	664,631	1,040,109	0.639	-0.448			5,431	664,631	
9/11/2018	1,055	111,924	1,040,109	0.108	-2.229			1,055	111,924	
9/12/2018	2,522	176,841	1,040,109	0.170	-1.772			2,522	176,841	
9/13/2018	905	101,846	1,040,109	0.098	-2.324			905	101,846	
9/14/2018	1,115	130,135	1,040,109	0.125	-2.079			1,115	130,135	
9/15/2018	4,737	257,221	1,040,109	0.247	-1.397			4,737	257,221	
9/16/2018	3,483	203,019	1,040,109	0.195	-1.634			3,483	203,019	
9/17/2018	800	66,735	1,040,109	0.064	-2.746			800	66,735	
9/18/2018	2,720	455,287	1,040,109	0.438	-0.826			2,720	455,287	
9/19/2018	1,295	195,888	1,040,109	0.188	-1.670			1,295	195,888	
9/20/2018	3,519	609,383	1,040,109	0.586	-0.535			3,519	609,383	
9/21/2018	13,884	2,266,996	1,040,109	2.180	0.779			13,884	2,266,996	
9/22/2018	2,948	348,912	1,040,109	0.335	-1.092			2,948	348,912	
9/23/2018	704	79,775	1,040,109	0.077	-2.568			704	79,775	
9/24/2018	3,724	317,833	1,040,109	0.306	-1.186			3,724	317,833	
9/25/2018	3,111	449,738	1,040,109	0.432	-0.838			3,111	449,738	
9/26/2018	6,961	360,178	1,040,109	0.346	-1.060	5,269	135,263	1,692	224,915	
9/27/2018	2,475	236,180	1,040,109	0.227	-1.482			2,475	236,180	
9/28/2018	1,072	111,207	1,040,109	0.107	-2.236			1,072	111,207	
9/29/2018	1,361	137,673	1,040,109	0.132	-2.022			1,361	137,673	
9/30/2018	2,753	238,979	1,040,109	0.230	-1.471			2,753	238,979	
10/1/2018	734	62,397	1,040,109	0.060	-2.814			734	62,397	
10/2/2018	1,823	212,564	1,040,109	0.204	-1.588			1,823	212,564	
10/3/2018	760	91,079	1,040,109	0.088	-2.435			760	91,079	
10/4/2018	4,182	278,533	1,040,109	0.268	-1.318			4,182	278,533	
10/5/2018	430	35,888	1,040,109	0.035	-3.367			430	35,888	
10/6/2018	1,856	188,725	1,040,109	0.181	-1.707			1,856	188,725	
10/7/2018	2,891	463,601	1,040,109	0.446	-0.808			2,891	463,601	
10/8/2018	356	62,551	1,040,109	0.060	-2.811			356	62,551	
10/9/2018	5,166	420,410	1,040,109	0.404	-0.906			5,166	420,410	
10/10/2018	741	126,957	1,040,109	0.122	-2.103			741	126,957	
10/11/2018	1,526	120,919	1,040,109	0.116	-2.152			1,526	120,919	
10/12/2018	5,576	356,330	1,040,109	0.343	-1.071			5,576	356,330	
10/13/2018	860	98,345	1,040,109	0.095	-2.359			860	98,345	
10/14/2018	1,045	96,928	1,040,109	0.093	-2.373			1,045	96,928	
10/15/2018	11,401	788,442	1,040,109	0.758	-0.277			11,401	788,442	
10/16/2018	364	26,137	1,040,109	0.025	-3.684			364	26,137	
10/17/2018	2,786	342,877	1,040,109	0.330	-1.110			2,786	342,877	
10/18/2018	1,465	146,972	1,040,109	0.141	-1.957			1,465	146,972	
10/19/2018	1,330	83,754	1,040,109	0.081	-2.519			1,330	83,754	

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Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
10/20/2018	20,234	6,611,053	1,040,109	6.356	1.849			20,234	6,611,053	1
10/21/2018	7,246	436,876	1,040,109	0.420	-0.867	2,198	15,386	5,048	421,490	
10/22/2018	845	56,472	1,040,109	0.054	-2.913			845	56,472	
10/23/2018	700	78,395	1,040,109	0.075	-2.585			700	78,395	
10/24/2018	2,069	324,055	1,040,109	0.312	-1.166			2,069	324,055	
10/25/2018	802	59,488	1,040,109	0.057	-2.861			802	59,488	
10/26/2018	2,209	180,817	1,040,109	0.174	-1.750			2,209	180,817	
10/27/2018	2,050	290,999	1,040,109	0.280	-1.274			2,050	290,999	
10/28/2018	4,326	167,923	1,040,109	0.161	-1.824	2,364	28,368	1,962	139,555	
10/29/2018	530	48,445	1,040,109	0.047	-3.067			530	48,445	
10/30/2018	563	99,763	1,040,109	0.096	-2.344			563	99,763	
10/31/2018	1,083	132,694	1,040,109	0.128	-2.059			1,083	132,694	
11/1/2018	1,868	289,205	1,040,109	0.278	-1.280			1,868	289,205	
11/2/2018	2,630	388,395	1,040,109	0.373	-0.985			2,630	388,395	
11/3/2018	738	83,858	1,040,109	0.081	-2.518			738	83,858	
11/4/2018	2,142	157,317	1,040,109	0.151	-1.889			2,142	157,317	
11/5/2018	460	35,653	1,040,109	0.034	-3.373			460	35,653	
11/6/2018	39,472	4,946,091	1,040,109	4.755	1.559	29,994	3,889,991	9,478	1,056,100	1
11/7/2018	637	70,384	1,040,109	0.068	-2.693			637	70,384	
11/8/2018	1,312	136,110	1,040,109	0.131	-2.034			1,312	136,110	
11/9/2018	2,147	189,907	1,040,109	0.183	-1.701			2,147	189,907	
11/10/2018	392	42,595	1,040,109	0.041	-3.195			392	42,595	
11/11/2018	517	47,248	1,040,109	0.045	-3.092			517	47,248	
11/12/2018	533	41,132	1,040,109	0.040	-3.230			533	41,132	
11/13/2018	3,905	505,257	1,040,109	0.486	-0.722			3,905	505,257	
11/14/2018	852	93,362	1,040,109	0.090	-2.411			852	93,362	
11/15/2018	32,012	18,140,458	1,040,109	17.441	2.859	3,072	290,464	28,940	17,849,994	1
11/16/2018	38,048	21,060,003	1,040,109	20.248	3.008	11,446	5,192,733	26,602	15,867,270	1
11/17/2018	6,237	1,327,955	1,040,109	1.277	0.244			6,237	1,327,955	
11/18/2018	1,109	149,876	1,040,109	0.144	-1.937			1,109	149,876	
11/19/2018	1,108	76,398	1,040,109	0.073	-2.611			1,108	76,398	
11/20/2018	5,820	530,574	1,040,109	0.510	-0.673			5,820	530,574	
11/21/2018	1,125	82,333	1,040,109	0.079	-2.536			1,125	82,333	
11/22/2018	181	24,426	1,040,109	0.023	-3.751			181	24,426	
11/23/2018	6,536	453,488	1,040,109	0.436	-0.830			6,536	453,488	
11/24/2018	221	32,839	1,040,109	0.032	-3.455			221	32,839	
11/25/2018	1,402	107,341	1,040,109	0.103	-2.271			1,402	107,341	
11/26/2018	3,090	271,297	1,040,109	0.261	-1.344			3,090	271,297	
11/27/2018	787	70,536	1,040,109	0.068	-2.691			787	70,536	
11/28/2018	69	5,771	1,040,109	0.006	-5.194			69	5,771	
11/29/2018	3,575	205,170	1,040,109	0.197	-1.623			3,575	205,170	
11/30/2018	805	107,906	1,040,109	0.104	-2.266			805	107,906	
12/1/2018	1,377	127,449	1,040,109	0.123	-2.099			1,377	127,449	
12/2/2018	2,357	262,195	1,040,109	0.252	-1.378			2,357	262,195	
12/3/2018	605	134,975	1,040,109	0.130	-2.042			605	134,975	
12/4/2018	333	17,325	1,040,109	0.017	-4.095			333	17,325	
12/5/2018	210	26,565	1,040,109	0.026	-3.667			210	26,565	
12/6/2018	563	39,466	1,040,109	0.038	-3.272			563	39,466	
12/7/2018	1,729	176,522	1,040,109	0.170	-1.774			1,729	176,522	
12/8/2018	1,706	105,152	1,040,109	0.101	-2.292			1,706	105,152	
12/9/2018	569	63,312	1,040,109	0.061	-2.799			569	63,312	
12/10/2018	3,611	260,103	1,040,109	0.250	-1.386			3,611	260,103	
12/11/2018	4,400	277,191	1,040,109	0.267	-1.322	1,512	77,112	2,888	200,079	
12/12/2018	298	37,412	1,040,109	0.036	-3.325			298	37,412	
12/13/2018	507	42,116	1,040,109	0.040	-3.207			507	42,116	
12/14/2018	352	30,194	1,040,109	0.029	-3.539			352	30,194	
12/15/2018	566	53,609	1,040,109	0.052	-2.965			566	53,609	
12/16/2018	1,137	102,085	1,040,109	0.098	-2.321			1,137	102,085	
12/17/2018	2,371	118,065	1,040,109	0.114	-2.176			2,371	118,065	
12/18/2018	256	20,988	1,040,109	0.020	-3.903			256	20,988	
12/19/2018	670	74,970	1,040,109	0.072	-2.630			670	74,970	
12/20/2018	1,329	112,438	1,040,109	0.108	-2.225			1,329	112,438	
12/21/2018	1,304	117,611	1,040,109	0.113	-2.180			1,304	117,611	
12/22/2018	608	88,995	1,040,109	0.086	-2.459			608	88,995	
12/23/2018	1,663	247,207	1,040,109	0.238	-1.437			1,663	247,207	
12/24/2018	159	16,347	1,040,109	0.016	-4.153			159	16,347	
12/25/2018	27,227	655,657	1,040,109	0.630	-0.461			27,227	655,657	
12/26/2018	905	74,615	1,040,109	0.072	-2.635			905	74,615	
12/27/2018	2,831	565,278	1,040,109	0.543	-0.610			2,831	565,278	
12/28/2018	1,279	127,705	1,040,109	0.123	-2.097			1,279	127,705	
12/29/2018	283	25,953	1,040,109	0.025	-3.691			283	25,953	
12/30/2018	934	61,409	1,040,109	0.059	-2.830			934	61,409	
12/31/2018	27,722	4,853,643	1,040,109	4.666	1.540	7,903	333,818	19,819	4,519,825	1
1/1/2019	22,255	4,488,603	1,042,023	4.308	1.460	12,035	2,119,339	10,220	2,369,264	1
1/2/2019	272	25,045	1,042,023	0.024	-3.728			272	25,045	
1/3/2019	1,137	117,295	1,042,023	0.113	-2.184			1,137	117,295	
1/4/2019	418	62,105	1,042,023	0.060	-2.820			418	62,105	
1/5/2019	2,398	290,916	1,042,023	0.279	-1.276			2,398	290,916	
1/6/2019	518	55,331	1,042,023	0.053	-2.936			518	55,331	
1/7/2019	822	68,842	1,042,023	0.066	-2.717			822	68,842	
1/8/2019	4,480	637,212	1,042,023	0.612	-0.492			4,480	637,212	
1/9/2019	3,629	252,371	1,042,023	0.242	-1.418			3,629	252,371	
1/10/2019	580	72,821	1,042,023	0.070	-2.661			580	72,821	
1/11/2019	250	34,499	1,042,023	0.033	-3.408			250	34,499	
1/12/2019	513	40,700	1,042,023	0.039	-3.243			513	40,700	
1/13/2019	4,740	470,333	1,042,023	0.451	-0.795			4,740	470,333	
1/14/2019	612	98,379	1,042,023	0.094	-2.360			612	98,379	
1/15/2019	125	14,584	1,042,023	0.014	-4.269			125	14,584	
1/16/2019	1,510	127,645	1,042,023	0.122	-2.100			1,510	127,645	
1/17/2019	160	13,300	1,042,023	0.013	-4.361			160	13,300	
1/18/2019	443	42,966	1,042,023	0.041	-3.189			443	42,966	
1/19/2019	3,463	561,949	1,042,023	0.539	-0.618			3,463	561,949	
1/20/2019	8,076	453,593	1,042,023	0.435	-0.832	5,174	39,014	2,902	414,579	
1/21/2019	8,467	695,155	1,042,023	0.667	-0.405			8,467	695,155	
1/22/2019	619	132,006	1,042,023	0.127	-2.066			619	132,006	
1/23/2019	1,381	149,967	1,042,023	0.144	-1.939			1,381	149,967	
1/24/2019	624	62,039	1,042,023	0.060	-2.821			624	62,039	
1/25/2019	958	148,458	1,042,023	0.142	-1.949			958	148,458	
1/26/2019	731	87,384	1,042,023	0.084	-2.479			731	87,384	
1/27/2019	171	13,622	1,042,023	0.013	-4.337			171	13,622	
1/28/2019	390	51,296	1,042,023	0.049	-3.011			390	51,296	
1/29/2019	2,034	367,644	1,042,023	0.353	-1.042			2,034	367,644	
1/30/2019	4,462	246,020	1,042,023	0.236	-1.444			4,462	246,020	
1/31/2019	3,582	406,056	1,042,023	0.390	-0.942			3,582	406,056	
2/1/2019	221	23,882	1,042,023	0.023	-3.776			221	23,882	
2/2/2019	176	25,394	1,042,023	0.024	-3.714			176	25,394	
2/3/2019	7,991	934,261	1,042,023	0.897	-0.109			7,991	934,261	
2/4/2019	1,264	96,063	1,042,023	0.092	-2.384			1,264	96,063	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
2/5/2019	621	67,991	1,042,023	0.065	-2.730			621	67,991	
2/6/2019	2,746	360,096	1,042,023	0.346	-1.063			2,746	360,096	
2/7/2019	23,205	2,086,673	1,042,023	2.003	0.694	15,158	975,909	8,047	1,110,764	
2/8/2019	10,237	456,205	1,042,023	0.438	-0.826	7,232	43,392	3,005	412,813	
2/9/2019	158	16,966	1,042,023	0.016	-4.118			158	16,966	
2/10/2019	1,209	94,358	1,042,023	0.091	-2.402			1,209	94,358	
2/11/2019	188	37,968	1,042,023	0.036	-3.312			188	37,968	
2/12/2019	4,002	370,387	1,042,023	0.355	-1.034			4,002	370,387	
2/13/2019	2,362	238,890	1,042,023	0.229	-1.473			2,362	238,890	
2/14/2019	610	28,745	1,042,023	0.028	-3.590			610	28,745	
2/15/2019	728	103,040	1,042,023	0.099	-2.314			728	103,040	
2/16/2019	606	108,852	1,042,023	0.104	-2.259			606	108,852	
2/17/2019	959	63,574	1,042,023	0.061	-2.797			959	63,574	
2/18/2019	211	23,166	1,042,023	0.022	-3.806			211	23,166	
2/19/2019	254	16,814	1,042,023	0.016	-4.127			254	16,814	
2/20/2019	519	89,576	1,042,023	0.086	-2.454			519	89,576	
2/21/2019	922	158,618	1,042,023	0.152	-1.882			922	158,618	
2/22/2019	563	55,103	1,042,023	0.053	-2.940			563	55,103	
2/23/2019	1,404	102,731	1,042,023	0.099	-2.317			1,404	102,731	
2/24/2019	184,949	77,851,478	1,042,023	74.712	4.314	18,697	660,962	166,252	77,190,516	1
2/25/2019	12,403	3,963,644	1,042,023	3.804	1.336			12,403	3,963,644	1
2/26/2019	1,788	297,461	1,042,023	0.285	-1.254			1,788	297,461	
2/27/2019	1,818	119,662	1,042,023	0.115	-2.164			1,818	119,662	
2/28/2019	322	36,957	1,042,023	0.035	-3.339			322	36,957	
3/1/2019	2,071	144,011	1,042,023	0.138	-1.979			2,071	144,011	
3/2/2019	671	39,224	1,042,023	0.038	-3.280			671	39,224	
3/3/2019	139	25,458	1,042,023	0.024	-3.712			139	25,458	
3/4/2019	332	49,289	1,042,023	0.047	-3.051			332	49,289	
3/5/2019	5,219	383,665	1,042,023	0.368	-0.999	4,497	287,808	722	95,857	
3/6/2019	228	19,848	1,042,023	0.019	-3.961			228	19,848	
3/7/2019	134	15,172	1,042,023	0.015	-4.229			134	15,172	
3/8/2019	741	88,818	1,042,023	0.085	-2.462			741	88,818	
3/9/2019	7,928	733,964	1,042,023	0.704	-0.350			7,928	733,964	
3/10/2019	3,762	405,091	1,042,023	0.389	-0.945			3,762	405,091	
3/11/2019	3,197	106,241	1,042,023	0.102	-2.283	1,782	19,602	1,415	86,639	
3/12/2019	5,083	286,791	1,042,023	0.275	-1.290	4,274	162,412	809	124,379	
3/13/2019	2,115	194,018	1,042,023	0.186	-1.681			2,115	194,018	
3/14/2019	16,943	2,409,291	1,042,023	2.312	0.838			16,943	2,409,291	
3/15/2019	1,908	164,177	1,042,023	0.158	-1.848			1,908	164,177	
3/16/2019	89	8,660	1,042,023	0.008	-4.790			89	8,660	
3/17/2019	3,513	450,568	1,042,023	0.432	-0.838	3,001	375,431	512	75,137	
3/18/2019	864	99,856	1,042,023	0.096	-2.345			864	99,856	
3/19/2019	394	52,394	1,042,023	0.050	-2.990			394	52,394	
3/20/2019	12,917	304,799	1,042,023	0.293	-1.229	12,659	265,839	258	38,960	
3/21/2019	549	45,760	1,042,023	0.044	-3.126			549	45,760	
3/22/2019	7,963	1,296,472	1,042,023	1.244	0.218	5,866	931,116	2,097	365,356	
3/23/2019	401	35,030	1,042,023	0.034	-3.393			401	35,030	
3/24/2019	2,471	211,341	1,042,023	0.203	-1.595			2,471	211,341	
3/25/2019	839	45,434	1,042,023	0.044	-3.133			839	45,434	
3/26/2019	5,437	351,130	1,042,023	0.337	-1.088			5,437	351,130	
3/27/2019	1,579	102,466	1,042,023	0.098	-2.319			1,579	102,466	
3/28/2019	704	58,050	1,042,023	0.056	-2.888			704	58,050	
3/29/2019	2,859	242,028	1,042,023	0.232	-1.460			2,859	242,028	
3/30/2019	1,628	220,890	1,042,023	0.212	-1.551			1,628	220,890	
3/31/2019	696	119,909	1,042,023	0.115	-2.162			696	119,909	
4/1/2019	3,361	172,044	1,042,023	0.165	-1.801			3,361	172,044	
4/2/2019	1,713	145,563	1,042,023	0.140	-1.968			1,713	145,563	
4/3/2019	196	47,435	1,042,023	0.046	-3.090			196	47,435	
4/4/2019	3,260	275,519	1,042,023	0.264	-1.330			3,260	275,519	
4/5/2019	350	34,308	1,042,023	0.033	-3.414			350	34,308	
4/6/2019	2,149	179,049	1,042,023	0.172	-1.761			2,149	179,049	
4/7/2019	165	16,662	1,042,023	0.016	-4.136			165	16,662	
4/8/2019	337	36,519	1,042,023	0.035	-3.351			337	36,519	
4/9/2019	4,341	104,618	1,042,023	0.100	-2.299			4,341	104,618	
4/10/2019	174	15,264	1,042,023	0.015	-4.223			174	15,264	
4/11/2019	3,503	216,727	1,042,023	0.208	-1.570			3,503	216,727	
4/12/2019	2,916	160,568	1,042,023	0.154	-1.870			2,916	160,568	
4/13/2019	730	73,489	1,042,023	0.071	-2.652			730	73,489	
4/14/2019	38,045	18,565,690	1,042,023	17.817	2.880	3,132	60,664	34,913	18,505,026	1
4/15/2019	1,416	384,710	1,042,023	0.369	-0.996			1,416	384,710	
4/16/2019	2,365	158,166	1,042,023	0.152	-1.885			2,365	158,166	
4/17/2019	1,442	115,817	1,042,023	0.111	-2.197			1,442	115,817	
4/18/2019	913	144,999	1,042,023	0.139	-1.972			913	144,999	
4/19/2019	6,662	1,240,428	1,042,023	1.190	0.174	4,836	1,015,821	1,826	224,607	
4/20/2019	1,243	117,012	1,042,023	0.112	-2.187			1,243	117,012	
4/21/2019	3,842	344,341	1,042,023	0.330	-1.107			3,842	344,341	
4/22/2019	3,660	448,428	1,042,023	0.430	-0.843			3,660	448,428	
4/23/2019	3,983	308,244	1,042,023	0.296	-1.218			3,983	308,244	
4/24/2019	1,903	142,859	1,042,023	0.137	-1.987			1,903	142,859	
4/25/2019	1,284	166,785	1,042,023	0.160	-1.832			1,284	166,785	
4/26/2019	1,625	306,391	1,042,023	0.294	-1.224			1,625	306,391	
4/27/2019	712	69,404	1,042,023	0.067	-2.709			712	69,404	
4/28/2019	863	90,679	1,042,023	0.087	-2.442			863	90,679	
4/29/2019	864	46,372	1,042,023	0.045	-3.112			864	46,372	
4/30/2019	1,200	96,599	1,042,023	0.093	-2.378			1,200	96,599	
5/1/2019	7,900	1,361,377	1,042,023	1.306	0.267			7,900	1,361,377	
5/2/2019	1,882	235,154	1,042,023	0.226	-1.489			1,882	235,154	
5/3/2019	202	22,926	1,042,023	0.022	-3.817			202	22,926	
5/4/2019	7,975	350,637	1,042,023	0.336	-1.089	5,610	129,030	2,365	221,607	
5/5/2019	985	78,333	1,042,023	0.075	-2.588			985	78,333	
5/6/2019	4,214	208,379	1,042,023	0.200	-1.610	3,919	166,478	295	41,901	
5/7/2019	234	23,253	1,042,023	0.022	-3.802			234	23,253	
5/8/2019	4,529	105,189	1,042,023	0.101	-2.293			4,529	105,189	
5/9/2019	2,266	338,604	1,042,023	0.325	-1.124			2,266	338,604	
5/10/2019	1,498	342,114	1,042,023	0.328	-1.114			1,498	342,114	
5/11/2019	598	71,095	1,042,023	0.068	-2.685			598	71,095	
5/12/2019	1,194	98,433	1,042,023	0.094	-2.360			1,194	98,433	
5/13/2019	486	33,191	1,042,023	0.032	-3.447			486	33,191	
5/14/2019	5,247	374,874	1,042,023	0.360	-1.022			5,247	374,874	
5/15/2019	3,739	406,535	1,042,023	0.390	-0.941			3,739	406,535	
5/16/2019	15,526	939,912	1,042,023	0.902	-0.103			15,526	939,912	
5/17/2019	1,070	169,233	1,042,023	0.162	-1.818			1,070	169,233	
5/18/2019	1,757	174,162	1,042,023	0.167	-1.789			1,757	174,162	
5/19/2019	11,158	949,695	1,042,023	0.911	-0.093	4,334	291,245	6,824	658,450	
5/20/2019	838	95,597	1,042,023	0.092	-2.389			838	95,597	
5/21/2019	4,037	286,958	1,042,023	0.275	-1.290			4,037	286,958	
5/22/2019	18,048	453,651	1,042,023	0.435	-0.832	15,085	183,837	2,963	269,814	
5/23/2019	7,888	834,331	1,042,023	0.801	-0.222			7,888	834,331	

YEAR	Alpha	Beta	TMED NEW RULE
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Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
5/24/2019	4,020	307,034	1,042,023	0.295	-1.222	2,508	188,100	1,512	118,934	
5/25/2019	13,585	1,935,921	1,042,023	1.858	0.619			13,585	1,935,921	
5/26/2019	27,550	2,075,205	1,042,023	1.992	0.689	19,498	445,321	8,052	1,629,884	
5/27/2019	935	81,582	1,042,023	0.078	-2.547			935	81,582	
5/28/2019	16,320	2,275,723	1,042,023	2.184	0.781			16,320	2,275,723	
5/29/2019	2,983	353,443	1,042,023	0.339	-1.081			2,983	353,443	
5/30/2019	12,392	529,458	1,042,023	0.508	-0.677			12,392	529,458	
5/31/2019	1,243	105,547	1,042,023	0.101	-2.290			1,243	105,547	
6/1/2019	5,303	1,033,113	1,042,023	0.991	-0.009			5,303	1,033,113	
6/2/2019	14,186	1,222,566	1,042,023	1.173	0.160	9,772	714,130	4,414	508,436	
6/3/2019	2,932	119,973	1,042,023	0.115	-2.162			2,932	119,973	
6/4/2019	982	92,261	1,042,023	0.089	-2.424			982	92,261	
6/5/2019	1,698	230,312	1,042,023	0.221	-1.509			1,698	230,312	
6/6/2019	2,587	257,492	1,042,023	0.247	-1.398			2,587	257,492	
6/7/2019	1,585	131,925	1,042,023	0.127	-2.067			1,585	131,925	
6/8/2019	3,846	215,162	1,042,023	0.206	-1.578			3,846	215,162	
6/9/2019	1,687	302,867	1,042,023	0.291	-1.236			1,687	302,867	
6/10/2019	7,384	536,887	1,042,023	0.515	-0.663			7,384	536,887	
6/11/2019	1,081	195,759	1,042,023	0.188	-1.672			1,081	195,759	
6/12/2019	9,993	276,758	1,042,023	0.266	-1.326			9,993	276,758	
6/13/2019	2,799	289,933	1,042,023	0.278	-1.279			2,799	289,933	
6/14/2019	4,024	320,440	1,042,023	0.308	-1.179			4,024	320,440	
6/15/2019	3,681	354,482	1,042,023	0.340	-1.078			3,681	354,482	
6/16/2019	39,009	4,658,039	1,042,023	4.470	1.497	19,565	1,584,950	19,444	3,073,089	1
6/17/2019	4,880	417,760	1,042,023	0.401	-0.914			4,880	417,760	
6/18/2019	3,247	366,597	1,042,023	0.352	-1.045			3,247	366,597	
6/19/2019	1,754	207,106	1,042,023	0.199	-1.616			1,754	207,106	
6/20/2019	3,927	453,350	1,042,023	0.435	-0.832			3,927	453,350	
6/21/2019	1,243	156,434	1,042,023	0.150	-1.896			1,243	156,434	
6/22/2019	6,538	363,351	1,042,023	0.349	-1.054			6,538	363,351	
6/23/2019	1,315	144,727	1,042,023	0.139	-1.974			1,315	144,727	
6/24/2019	922	161,135	1,042,023	0.155	-1.867			922	161,135	
6/25/2019	1,560	182,728	1,042,023	0.175	-1.741			1,560	182,728	
6/26/2019	2,205	299,673	1,042,023	0.288	-1.246			2,205	299,673	
6/27/2019	14,198	1,582,809	1,042,023	1.519	0.418			14,198	1,582,809	
6/28/2019	10,253	2,000,741	1,042,023	1.920	0.652			10,253	2,000,741	
6/29/2019	11,618	1,656,872	1,042,023	1.590	0.464			11,618	1,656,872	
6/30/2019	3,977	441,569	1,042,023	0.424	-0.859			3,977	441,569	
7/1/2019	5,525	562,130	1,042,023	0.539	-0.617			5,525	562,130	
7/2/2019	9,651	2,722,702	1,042,023	2.613	0.960	774	29,412	8,877	2,693,290	
7/3/2019	3,907	372,530	1,042,023	0.358	-1.029			3,907	372,530	
7/4/2019	2,108	248,341	1,042,023	0.238	-1.434			2,108	248,341	
7/5/2019	2,336	451,830	1,042,023	0.434	-0.836			2,336	451,830	
7/6/2019	5,529	614,572	1,042,023	0.590	-0.528			5,529	614,572	
7/7/2019	6,551	1,208,892	1,042,023	1.160	0.149			6,551	1,208,892	
7/8/2019	2,832	500,529	1,042,023	0.480	-0.733			2,832	500,529	
7/9/2019	1,145	115,403	1,042,023	0.111	-2.200			1,145	115,403	
7/10/2019	1,850	231,976	1,042,023	0.223	-1.502			1,850	231,976	
7/11/2019	14,874	5,107,988	1,042,023	4.902	1.590			14,874	5,107,988	1
7/12/2019	1,370	277,209	1,042,023	0.266	-1.324			1,370	277,209	
7/13/2019	1,245	138,690	1,042,023	0.133	-2.017			1,245	138,690	
7/14/2019	1,340	116,040	1,042,023	0.111	-2.195			1,340	116,040	
7/15/2019	6,248	857,853	1,042,023	0.823	-0.194			6,248	857,853	
7/16/2019	4,646	557,909	1,042,023	0.535	-0.625			4,646	557,909	
7/17/2019	1,078	162,316	1,042,023	0.156	-1.859			1,078	162,316	
7/18/2019	2,767	287,183	1,042,023	0.276	-1.289	1,192	107,280	1,575	179,903	
7/19/2019	2,527	363,828	1,042,023	0.349	-1.052			2,527	363,828	
7/20/2019	12,090	1,604,114	1,042,023	1.539	0.431			12,090	1,604,114	
7/21/2019	8,112	1,202,711	1,042,023	1.154	0.143			8,112	1,202,711	
7/22/2019	2,508	374,708	1,042,023	0.360	-1.023			2,508	374,708	
7/23/2019	2,126	364,063	1,042,023	0.349	-1.052			2,126	364,063	
7/24/2019	3,039	231,844	1,042,023	0.222	-1.503			3,039	231,844	
7/25/2019	863	113,191	1,042,023	0.109	-2.220			863	113,191	
7/26/2019	1,403	189,235	1,042,023	0.182	-1.706			1,403	189,235	
7/27/2019	5,295	461,813	1,042,023	0.443	-0.814			5,295	461,813	
7/28/2019	848	127,606	1,042,023	0.122	-2.100			848	127,606	
7/29/2019	2,128	366,074	1,042,023	0.351	-1.046			2,128	366,074	
7/30/2019	2,437	220,959	1,042,023	0.212	-1.551			2,437	220,959	
7/31/2019	2,419	267,621	1,042,023	0.257	-1.359			2,419	267,621	
8/1/2019	2,262	691,798	1,042,023	0.664	-0.410			2,262	691,798	
8/2/2019	5,087	768,044	1,042,023	0.737	-0.305			5,087	768,044	
8/3/2019	757	87,892	1,042,023	0.084	-2.473			757	87,892	
8/4/2019	2,125	216,703	1,042,023	0.208	-1.570			2,125	216,703	
8/5/2019	1,187	166,330	1,042,023	0.160	-1.835			1,187	166,330	
8/6/2019	14,384	1,410,806	1,042,023	1.354	0.303	2,621	111,233	11,763	1,299,573	
8/7/2019	5,081	598,269	1,042,023	0.574	-0.555			5,081	598,269	
8/8/2019	14,180	1,183,931	1,042,023	1.136	0.128	10,980	562,139	3,200	621,792	
8/9/2019	1,715	236,502	1,042,023	0.227	-1.483			1,715	236,502	
8/10/2019	367	58,531	1,042,023	0.056	-2.879			367	58,531	
8/11/2019	797	72,363	1,042,023	0.069	-2.667			797	72,363	
8/12/2019	990	133,990	1,042,023	0.129	-2.051			990	133,990	
8/13/2019	2,053	255,964	1,042,023	0.246	-1.404			2,053	255,964	
8/14/2019	819	132,860	1,042,023	0.128	-2.060			819	132,860	
8/15/2019	6,557	527,436	1,042,023	0.506	-0.681			6,557	527,436	
8/16/2019	4,897	730,975	1,042,023	0.701	-0.355			4,897	730,975	
8/17/2019	2,800	385,751	1,042,023	0.370	-0.994			2,800	385,751	
8/18/2019	44,326	20,512,673	1,042,023	19.685	2.980			44,326	20,512,673	1
8/19/2019	14,411	2,718,054	1,042,023	2.608	0.959			14,411	2,718,054	
8/20/2019	13,565	1,484,358	1,042,023	1.424	0.354			13,565	1,484,358	
8/21/2019	963	105,130	1,042,023	0.101	-2.294			963	105,130	
8/22/2019	745	105,704	1,042,023	0.101	-2.288			745	105,704	
8/23/2019	1,136	101,418	1,042,023	0.097	-2.330			1,136	101,418	
8/24/2019	1,836	202,024	1,042,023	0.194	-1.641			1,836	202,024	
8/25/2019	3,254	429,372	1,042,023	0.412	-0.887			3,254	429,372	
8/26/2019	2,691	201,464	1,042,023	0.193	-1.643			2,691	201,464	
8/27/2019	1,062	142,445	1,042,023	0.137	-1.990			1,062	142,445	
8/28/2019	1,200	112,733	1,042,023	0.108	-2.224			1,200	112,733	
8/29/2019	750	117,957	1,042,023	0.113	-2.179			750	117,957	
8/30/2019	895	76,212	1,042,023	0.073	-2.615			895	76,212	
8/31/2019	2,446	454,576	1,042,023	0.436	-0.830			2,446	454,576	
9/1/2019	1,217	110,820	1,042,023	0.106	-2.241			1,217	110,820	
9/2/2019	1,020	116,030	1,042,023	0.111	-2.195			1,020	116,030	
9/3/2019	1,644	124,693	1,042,023	0.120	-2.123			1,644	124,693	
9/4/2019	483	53,657	1,042,023	0.051	-2.966			483	53,657	
9/5/2019	2,284	126,575	1,042,023	0.121	-2.108			2,284	126,575	
9/6/2019	3,560	551,852	1,042,023	0.530	-0.636			3,560	551,852	
9/7/2019	1,017	89,500	1,042,023	0.086	-2.455			1,017	89,500	
9/8/2019	1,032	201,107	1,042,023	0.193	-1.645			1,032	201,107	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
9/9/2019	1,178	89,773	1,042,023	0.086	-2.452			1,178	89,773	
9/10/2019	607	53,978	1,042,023	0.052	-2.960			607	53,978	
9/11/2019	1,298	111,815	1,042,023	0.107	-2.232			1,298	111,815	
9/12/2019	6,521	374,727	1,042,023	0.360	-1.023	3,119	31,190	3,402	343,537	
9/13/2019	6,380	815,201	1,042,023	0.782	-0.245			6,380	815,201	
9/14/2019	3,119	491,638	1,042,023	0.472	-0.751			3,119	491,638	
9/15/2019	4,783	238,575	1,042,023	0.229	-1.474			4,783	238,575	
9/16/2019	780	92,172	1,042,023	0.088	-2.425			780	92,172	
9/17/2019	1,609	183,544	1,042,023	0.176	-1.736			1,609	183,544	
9/18/2019	8,775	466,675	1,042,023	0.448	-0.803			8,775	466,675	
9/19/2019	901	119,614	1,042,023	0.115	-2.165			901	119,614	
9/20/2019	203	32,534	1,042,023	0.031	-3.467			203	32,534	
9/21/2019	499	59,379	1,042,023	0.057	-2.865			499	59,379	
9/22/2019	1,504	177,141	1,042,023	0.170	-1.772			1,504	177,141	
9/23/2019	1,837	222,929	1,042,023	0.214	-1.542			1,837	222,929	
9/24/2019	555	52,657	1,042,023	0.051	-2.985			555	52,657	
9/25/2019	846	75,677	1,042,023	0.073	-2.622			846	75,677	
9/26/2019	3,628	287,575	1,042,023	0.276	-1.287			3,628	287,575	
9/27/2019	1,259	93,477	1,042,023	0.090	-2.411			1,259	93,477	
9/28/2019	4,377	644,496	1,042,023	0.619	-0.480	3,675	588,111	702	56,385	
9/29/2019	3,287	484,492	1,042,023	0.465	-0.766			3,287	484,492	
9/30/2019	7,412	659,858	1,042,023	0.633	-0.457			7,412	659,858	
10/1/2019	4,857	423,560	1,042,023	0.406	-0.900			4,857	423,560	
10/2/2019	690	78,682	1,042,023	0.076	-2.584			690	78,682	
10/3/2019	8,404	1,378,871	1,042,023	1.323	0.280	4,898	1,147,358	3,506	231,513	
10/4/2019	5,335	454,830	1,042,023	0.436	-0.829	2,510	150,600	2,825	304,230	
10/5/2019	1,050	105,889	1,042,023	0.102	-2.287			1,050	105,889	
10/6/2019	958	92,164	1,042,023	0.088	-2.425			958	92,164	
10/7/2019	898	82,770	1,042,023	0.079	-2.533			898	82,770	
10/8/2019	3,754	298,753	1,042,023	0.287	-1.249			3,754	298,753	
10/9/2019	857	96,296	1,042,023	0.092	-2.381			857	96,296	
10/10/2019	2,237	195,242	1,042,023	0.187	-1.675			2,237	195,242	
10/11/2019	705	78,469	1,042,023	0.075	-2.586			705	78,469	
10/12/2019	3,020	293,742	1,042,023	0.282	-1.266			3,020	293,742	
10/13/2019	716	58,679	1,042,023	0.056	-2.877			716	58,679	
10/14/2019	2,444	181,351	1,042,023	0.174	-1.748			2,444	181,351	
10/15/2019	2,190	128,218	1,042,023	0.123	-2.095			2,190	128,218	
10/16/2019	3,130	308,971	1,042,023	0.297	-1.216			3,130	308,971	
10/17/2019	4,857	508,329	1,042,023	0.488	-0.718			4,857	508,329	
10/18/2019	990	123,584	1,042,023	0.119	-2.132			990	123,584	
10/19/2019	919	85,337	1,042,023	0.082	-2.502			919	85,337	
10/20/2019	824	113,581	1,042,023	0.109	-2.216			824	113,581	
10/21/2019	1,943	166,611	1,042,023	0.160	-1.833			1,943	166,611	
10/22/2019	850	83,164	1,042,023	0.080	-2.528			850	83,164	
10/23/2019	3,163	184,213	1,042,023	0.177	-1.733			3,163	184,213	
10/24/2019	1,445	172,683	1,042,023	0.166	-1.797			1,445	172,683	
10/25/2019	861	88,299	1,042,023	0.085	-2.468			861	88,299	
10/26/2019	2,269	348,745	1,042,023	0.335	-1.095			2,269	348,745	
10/27/2019	7,993	1,246,108	1,042,023	1.196	0.179			7,993	1,246,108	
10/28/2019	990	57,614	1,042,023	0.055	-2.895			990	57,614	
10/29/2019	5,624	890,574	1,042,023	0.855	-0.157			5,624	890,574	
10/30/2019	13,135	469,698	1,042,023	0.451	-0.797	9,774	196,157	3,361	273,541	
10/31/2019	31,743	4,760,927	1,042,023	4.569	1.519			31,743	4,760,927	1
11/1/2019	1,123	211,033	1,042,023	0.203	-1.597			1,123	211,033	
11/2/2019	193	20,246	1,042,023	0.019	-3.941			193	20,246	
11/3/2019	1,029	87,697	1,042,023	0.084	-2.475			1,029	87,697	
11/4/2019	1,223	75,969	1,042,023	0.073	-2.619			1,223	75,969	
11/5/2019	9,488	728,017	1,042,023	0.699	-0.359			9,488	728,017	
11/6/2019	970	93,080	1,042,023	0.089	-2.415			970	93,080	
11/7/2019	2,074	241,462	1,042,023	0.232	-1.462			2,074	241,462	
11/8/2019	774	94,165	1,042,023	0.090	-2.404			774	94,165	
11/9/2019	624	39,966	1,042,023	0.038	-3.261			624	39,966	
11/10/2019	2,352	257,209	1,042,023	0.247	-1.399			2,352	257,209	
11/11/2019	2,332	343,369	1,042,023	0.330	-1.110			2,332	343,369	
11/12/2019	4,699	530,116	1,042,023	0.509	-0.676			4,699	530,116	
11/13/2019	3,031	130,492	1,042,023	0.125	-2.078	1,738	31,284	1,293	99,208	
11/14/2019	393	55,921	1,042,023	0.054	-2.925			393	55,921	
11/15/2019	958	119,994	1,042,023	0.115	-2.161			958	119,994	
11/16/2019	737	58,866	1,042,023	0.056	-2.874			737	58,866	
11/17/2019	2,821	162,654	1,042,023	0.156	-1.857			2,821	162,654	
11/18/2019	5,022	1,008,086	1,042,023	0.967	-0.033			5,022	1,008,086	
11/19/2019	2,636	273,380	1,042,023	0.262	-1.338			2,636	273,380	
11/20/2019	525	52,558	1,042,023	0.050	-2.987			525	52,558	
11/21/2019	761	104,819	1,042,023	0.101	-2.297			761	104,819	
11/22/2019	4,176	426,169	1,042,023	0.409	-0.894			4,176	426,169	
11/23/2019	1,144	62,413	1,042,023	0.060	-2.815			1,144	62,413	
11/24/2019	424	55,467	1,042,023	0.053	-2.933			424	55,467	
11/25/2019	711	46,901	1,042,023	0.045	-3.101			711	46,901	
11/26/2019	895	68,123	1,042,023	0.065	-2.728			895	68,123	
11/27/2019	40,310	7,961,818	1,042,023	7.641	2.033			40,310	7,961,818	1
11/28/2019	900	117,917	1,042,023	0.113	-2.179			900	117,917	
11/29/2019	594	47,971	1,042,023	0.046	-3.078			594	47,971	
11/30/2019	1,113	209,756	1,042,023	0.201	-1.603			1,113	209,756	
12/1/2019	7,938	614,879	1,042,023	0.590	-0.527			7,938	614,879	
12/2/2019	1,841	175,567	1,042,023	0.168	-1.781			1,841	175,567	
12/3/2019	155	39,351	1,042,023	0.038	-3.276			155	39,351	
12/4/2019	498	111,272	1,042,023	0.107	-2.237			498	111,272	
12/5/2019	513	47,873	1,042,023	0.046	-3.080			513	47,873	
12/6/2019	424	57,962	1,042,023	0.056	-2.889			424	57,962	
12/7/2019	551	55,439	1,042,023	0.053	-2.934			551	55,439	
12/8/2019	365	71,007	1,042,023	0.068	-2.686			365	71,007	
12/9/2019	3,582	377,064	1,042,023	0.362	-1.017			3,582	377,064	
12/10/2019	8,354	1,117,669	1,042,023	1.073	0.070			8,354	1,117,669	
12/11/2019	1,719	242,016	1,042,023	0.232	-1.460			1,719	242,016	
12/12/2019	6,110	819,640	1,042,023	0.787	-0.240			6,110	819,640	
12/13/2019	1,780	273,196	1,042,023	0.262	-1.339			1,780	273,196	
12/14/2019	437	33,913	1,042,023	0.033	-3.425			437	33,913	
12/15/2019	219	23,569	1,042,023	0.023	-3.789			219	23,569	
12/16/2019	403	30,397	1,042,023	0.029	-3.535			403	30,397	
12/17/2019	4,116	187,831	1,042,023	0.180	-1.713	1,203	16,842	2,913	170,989	
12/18/2019	461	34,021	1,042,023	0.033	-3.422			461	34,021	
12/19/2019	1,690	97,785	1,042,023	0.094	-2.366			1,690	97,785	
12/20/2019	1,096	53,715	1,042,023	0.052	-2.965	640	13,440	456	40,275	
12/21/2019	1,457	76,478	1,042,023	0.073	-2.612			1,457	76,478	
12/22/2019	2,047	126,142	1,042,023	0.121	-2.112			2,047	126,142	
12/23/2019	412	87,684	1,042,023	0.084	-2.475			412	87,684	
12/24/2019	4,532	771,107	1,042,023	0.740	-0.301			4,532	771,107	
12/25/2019	153	8,631	1,042,023	0.008	-4.794			153	8,631	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
12/26/2019	1,502	104,139	1,042,023	0.100	-2.303			1,502	104,139	
12/27/2019	320	22,615	1,042,023	0.022	-3.830			320	22,615	
12/28/2019	567	42,719	1,042,023	0.041	-3.194			567	42,719	
12/29/2019	7,421	743,474	1,042,023	0.713	-0.338	5,176	397,440	2,245	346,034	
12/30/2019	56,364	14,500,160	1,042,023	13.915	2.633	19,048	2,397,537	37,316	12,102,623	1
12/31/2019	1,390	200,434	1,042,023	0.192	-1.648			1,390	200,434	
1/1/2020	237	16,466	1,046,570	0.016	-4.152			237	16,466	
1/2/2020	837	47,237	1,046,570	0.045	-3.098			837	47,237	
1/3/2020	825	93,768	1,046,570	0.090	-2.412			825	93,768	
1/4/2020	4,840	304,703	1,046,570	0.291	-1.234			4,840	304,703	
1/5/2020	85	10,968	1,046,570	0.010	-4.558			85	10,968	
1/6/2020	597	65,209	1,046,570	0.062	-2.776			597	65,209	
1/7/2020	513	74,264	1,046,570	0.071	-2.646			513	74,264	
1/8/2020	1,061	69,558	1,046,570	0.066	-2.711			1,061	69,558	
1/9/2020	808	75,801	1,046,570	0.072	-2.625			808	75,801	
1/10/2020	1,528	108,257	1,046,570	0.103	-2.269			1,528	108,257	
1/11/2020	8,696	801,033	1,046,570	0.765	-0.267			8,696	801,033	
1/12/2020	15,344	3,652,474	1,046,570	3.490	1.250			15,344	3,652,474	
1/13/2020	1,072	166,125	1,046,570	0.159	-1.841			1,072	166,125	
1/14/2020	2,383	162,827	1,046,570	0.156	-1.861			2,383	162,827	
1/15/2020	1,055	102,083	1,046,570	0.098	-2.327			1,055	102,083	
1/16/2020	2,266	160,061	1,046,570	0.153	-1.878			2,266	160,061	
1/17/2020	1,169	71,849	1,046,570	0.069	-2.679	940	54,520	229	17,329	
1/18/2020	6,270	707,845	1,046,570	0.676	-0.391			6,270	707,845	
1/19/2020	3,653	484,428	1,046,570	0.463	-0.770			3,653	484,428	
1/20/2020	2,039	77,866	1,046,570	0.074	-2.598			2,039	77,866	
1/21/2020	2,906	287,352	1,046,570	0.275	-1.293			2,906	287,352	
1/22/2020	55	2,788	1,046,570	0.003	-5.928			55	2,788	
1/23/2020	125	7,249	1,046,570	0.007	-4.972			125	7,249	
1/24/2020	3,108	221,832	1,046,570	0.212	-1.551			3,108	221,832	
1/25/2020	1,228	227,707	1,046,570	0.218	-1.525			1,228	227,707	
1/26/2020	143	13,027	1,046,570	0.012	-4.386			143	13,027	
1/27/2020	802	58,724	1,046,570	0.056	-2.880			802	58,724	
1/28/2020	139	13,107	1,046,570	0.013	-4.380			139	13,107	
1/29/2020	256	50,487	1,046,570	0.048	-3.032			256	50,487	
1/30/2020	4,145	795,022	1,046,570	0.760	-0.275	2,503	320,384	1,642	474,638	
1/31/2020	804	37,135	1,046,570	0.035	-3.339			804	37,135	
2/1/2020	235	22,852	1,046,570	0.022	-3.824			235	22,852	
2/2/2020	651	64,162	1,046,570	0.061	-2.792			651	64,162	
2/3/2020	5,747	242,035	1,046,570	0.231	-1.464			5,747	242,035	
2/4/2020	599	91,544	1,046,570	0.087	-2.436			599	91,544	
2/5/2020	1,696	252,709	1,046,570	0.241	-1.421			1,696	252,709	
2/6/2020	5,671	820,287	1,046,570	0.784	-0.244			5,671	820,287	
2/7/2020	5,137	338,971	1,046,570	0.324	-1.127			5,137	338,971	
2/8/2020	1,931	160,196	1,046,570	0.153	-1.877			1,931	160,196	
2/9/2020	2,646	296,138	1,046,570	0.283	-1.262			2,646	296,138	
2/10/2020	649	60,067	1,046,570	0.057	-2.858			649	60,067	
2/11/2020	564	27,495	1,046,570	0.026	-3.639			564	27,495	
2/12/2020	1,039	95,190	1,046,570	0.091	-2.397			1,039	95,190	
2/13/2020	688	63,087	1,046,570	0.060	-2.809			688	63,087	
2/14/2020	521	78,734	1,046,570	0.075	-2.587			521	78,734	
2/15/2020	1,770	106,204	1,046,570	0.101	-2.288			1,770	106,204	
2/16/2020	236	26,812	1,046,570	0.026	-3.664			236	26,812	
2/17/2020	448	38,444	1,046,570	0.037	-3.304			448	38,444	
2/18/2020	2,225	189,952	1,046,570	0.181	-1.707			2,225	189,952	
2/19/2020	165	18,362	1,046,570	0.018	-4.043			165	18,362	
2/20/2020	5,642	420,452	1,046,570	0.402	-0.912	5,474	392,193	168	28,259	
2/21/2020	941	30,893	1,046,570	0.030	-3.523			941	30,893	
2/22/2020	1,849	155,709	1,046,570	0.149	-1.905			1,849	155,709	
2/23/2020	306	52,306	1,046,570	0.050	-2.996			306	52,306	
2/24/2020	1,436	124,316	1,046,570	0.119	-2.130			1,436	124,316	
2/25/2020	996	85,257	1,046,570	0.081	-2.508			996	85,257	
2/26/2020	631	81,561	1,046,570	0.078	-2.552			631	81,561	
2/27/2020	922	80,629	1,046,570	0.077	-2.563			922	80,629	
2/28/2020	630	64,433	1,046,570	0.062	-2.788			630	64,433	
2/29/2020	247	41,643	1,046,570	0.040	-3.224			247	41,643	
3/1/2020	582	39,780	1,046,570	0.038	-3.270			582	39,780	
3/2/2020	721	82,599	1,046,570	0.079	-2.539			721	82,599	
3/3/2020	1,111	206,212	1,046,570	0.197	-1.624			1,111	206,212	
3/4/2020	438	41,385	1,046,570	0.040	-3.230			438	41,385	
3/5/2020	482	39,400	1,046,570	0.038	-3.280			482	39,400	
3/6/2020	425	80,563	1,046,570	0.077	-2.564			425	80,563	
3/7/2020	1,871	75,171	1,046,570	0.072	-2.634			1,871	75,171	
3/8/2020	6,073	163,761	1,046,570	0.156	-1.855			6,073	163,761	
3/9/2020	335	45,403	1,046,570	0.043	-3.138			335	45,403	
3/10/2020	1,892	280,213	1,046,570	0.268	-1.318			1,892	280,213	
3/11/2020	483	48,274	1,046,570	0.046	-3.076			483	48,274	
3/12/2020	10,689	457,781	1,046,570	0.437	-0.827	10,328	433,248	361	24,533	
3/13/2020	1,222	131,557	1,046,570	0.126	-2.074			1,222	131,557	
3/14/2020	311	27,304	1,046,570	0.026	-3.646			311	27,304	
3/15/2020	531	43,900	1,046,570	0.042	-3.171			531	43,900	
3/16/2020	767	72,383	1,046,570	0.069	-2.671			767	72,383	
3/17/2020	274	21,322	1,046,570	0.020	-3.894			274	21,322	
3/18/2020	3,802	547,982	1,046,570	0.524	-0.647			3,802	547,982	
3/19/2020	7,374	456,124	1,046,570	0.436	-0.831	3,351	40,212	4,023	415,912	
3/20/2020	5,559	575,259	1,046,570	0.550	-0.598			5,559	575,259	
3/21/2020	123	20,361	1,046,570	0.019	-3.940			123	20,361	
3/22/2020	308	18,169	1,046,570	0.017	-4.054			308	18,169	
3/23/2020	3,002	295,587	1,046,570	0.282	-1.264			3,002	295,587	
3/24/2020	3,427	254,324	1,046,570	0.243	-1.415			3,427	254,324	
3/25/2020	241	22,443	1,046,570	0.021	-3.842			241	22,443	
3/26/2020	15,719	584,423	1,046,570	0.558	-0.583	11,964	363,662	3,755	220,761	
3/27/2020	1,052	74,044	1,046,570	0.071	-2.649			1,052	74,044	
3/28/2020	16,512	1,681,679	1,046,570	1.607	0.474	6,584	533,304	9,928	1,148,375	
3/29/2020	23,447	4,636,813	1,046,570	4.430	1.489			23,447	4,636,813	1
3/30/2020	2,182	150,559	1,046,570	0.144	-1.939			2,182	150,559	
3/31/2020	2,541	227,311	1,046,570	0.217	-1.527			2,541	227,311	
4/1/2020	6,508	445,855	1,046,570	0.426	-0.853			6,508	445,855	
4/2/2020	2,335	237,623	1,046,570	0.227	-1.483			2,335	237,623	
4/3/2020	1,510	145,896	1,046,570	0.139	-1.970			1,510	145,896	
4/4/2020	3,092	252,929	1,046,570	0.242	-1.420			3,092	252,929	
4/5/2020	2,412	236,161	1,046,570	0.226	-1.489			2,412	236,161	
4/6/2020	273	31,228	1,046,570	0.030	-3.512			273	31,228	
4/7/2020	43,906	28,627,244	1,046,570	27.353	3.309			43,906	28,627,244	1
4/8/2020	60,465	42,690,579	1,046,570	40.791	3.708	10,673	2,152,425	49,792	40,538,154	1
4/9/2020	18,093	2,128,033	1,046,570	2.033	0.710	2,188	37,196	15,905	2,090,837	
4/10/2020	1,866	291,024	1,046,570	0.278	-1.280			1,866	291,024	
4/11/2020	733	69,624	1,046,570	0.067	-2.710			733	69,624	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
4/12/2020	3,322	186,557	1,046,570	0.178	-1.725			3,322	186,557	
4/13/2020	14,417	1,798,716	1,046,570	1.719	0.542			14,417	1,798,716	
4/14/2020	478	38,445	1,046,570	0.037	-3.304			478	38,445	
4/15/2020	619	50,647	1,046,570	0.048	-3.028			619	50,647	
4/16/2020	631	48,800	1,046,570	0.047	-3.066			631	48,800	
4/17/2020	4,100	421,448	1,046,570	0.403	-0.910			4,100	421,448	
4/18/2020	405	42,595	1,046,570	0.041	-3.202			405	42,595	
4/19/2020	726	31,614	1,046,570	0.030	-3.500			726	31,614	
4/20/2020	321	27,217	1,046,570	0.026	-3.649			321	27,217	
4/21/2020	327	40,832	1,046,570	0.039	-3.244			327	40,832	
4/22/2020	2,592	236,407	1,046,570	0.226	-1.488			2,592	236,407	
4/23/2020	388	33,582	1,046,570	0.032	-3.439			388	33,582	
4/24/2020	2,822	304,122	1,046,570	0.291	-1.236			2,822	304,122	
4/25/2020	880	116,316	1,046,570	0.111	-2.197			880	116,316	
4/26/2020	2,426	330,615	1,046,570	0.316	-1.152			2,426	330,615	
4/27/2020	956	126,855	1,046,570	0.121	-2.110			956	126,855	
4/28/2020	790	50,694	1,046,570	0.048	-3.027			790	50,694	
4/29/2020	524	54,194	1,046,570	0.052	-2.961			524	54,194	
4/30/2020	1,469	57,047	1,046,570	0.055	-2.909			1,469	57,047	
5/1/2020	313	23,555	1,046,570	0.023	-3.794			313	23,555	
5/2/2020	4,467	260,001	1,046,570	0.248	-1.393			4,467	260,001	
5/3/2020	769	97,510	1,046,570	0.093	-2.373			769	97,510	
5/4/2020	954	113,605	1,046,570	0.109	-2.221			954	113,605	
5/5/2020	2,423	190,006	1,046,570	0.182	-1.706			2,423	190,006	
5/6/2020	566	34,793	1,046,570	0.033	-3.404			566	34,793	
5/7/2020	7,397	1,877,641	1,046,570	1.794	0.584			7,397	1,877,641	
5/8/2020	2,004	182,819	1,046,570	0.175	-1.745			2,004	182,819	
5/9/2020	375	101,470	1,046,570	0.097	-2.334			375	101,470	
5/10/2020	2,172	233,510	1,046,570	0.223	-1.500			2,172	233,510	
5/11/2020	997	123,002	1,046,570	0.118	-2.141			997	123,002	
5/12/2020	1,063	83,484	1,046,570	0.080	-2.529			1,063	83,484	
5/13/2020	5,719	496,366	1,046,570	0.474	-0.746			5,719	496,366	
5/14/2020	2,428	198,266	1,046,570	0.189	-1.664			2,428	198,266	
5/15/2020	2,904	230,768	1,046,570	0.220	-1.512			2,904	230,768	
5/16/2020	6,312	713,951	1,046,570	0.682	-0.382	4,357	444,414	1,955	269,537	
5/17/2020	1,953	232,373	1,046,570	0.222	-1.505			1,953	232,373	
5/18/2020	1,058	128,828	1,046,570	0.123	-2.095			1,058	128,828	
5/19/2020	11,319	1,173,721	1,046,570	1.121	0.115			11,319	1,173,721	
5/20/2020	3,188	428,158	1,046,570	0.409	-0.894	2,173	304,220	1,015	123,938	
5/21/2020	2,223	253,848	1,046,570	0.243	-1.417			2,223	253,848	
5/22/2020	8,967	891,038	1,046,570	0.851	-0.161	5,765	480,355	3,202	410,683	
5/23/2020	709	101,099	1,046,570	0.097	-2.337			709	101,099	
5/24/2020	1,425	110,429	1,046,570	0.106	-2.249			1,425	110,429	
5/25/2020	2,164	249,245	1,046,570	0.238	-1.435			2,164	249,245	
5/26/2020	11,593	809,697	1,046,570	0.774	-0.257	6,008	514,208	5,585	295,489	
5/27/2020	1,645	156,187	1,046,570	0.149	-1.902			1,645	156,187	
5/28/2020	1,266	159,488	1,046,570	0.152	-1.881			1,266	159,488	
5/29/2020	17,681	1,901,433	1,046,570	1.817	0.597	4,479	722,041	13,202	1,179,392	
5/30/2020	2,094	186,908	1,046,570	0.179	-1.723			2,094	186,908	
5/31/2020	1,469	82,605	1,046,570	0.079	-2.539			1,469	82,605	
6/1/2020	7,338	496,069	1,046,570	0.474	-0.747	6,372	398,286	966	97,783	
6/2/2020	1,137	195,541	1,046,570	0.187	-1.678			1,137	195,541	
6/3/2020	1,369	125,549	1,046,570	0.120	-2.121			1,369	125,549	
6/4/2020	20,491	1,244,394	1,046,570	1.189	0.173	9,842	337,189	10,649	907,205	
6/5/2020	4,897	715,916	1,046,570	0.684	-0.380			4,897	715,916	
6/6/2020	4,888	505,869	1,046,570	0.483	-0.727			4,888	505,869	
6/7/2020	856	107,311	1,046,570	0.103	-2.278			856	107,311	
6/8/2020	1,625	111,947	1,046,570	0.107	-2.235			1,625	111,947	
6/9/2020	15,773	1,161,469	1,046,570	1.110	0.104	6,948	558,118	8,825	603,351	
6/10/2020	77,206	37,035,354	1,046,570	35.387	3.566	13,718	385,974	63,488	36,649,380	1
6/11/2020	4,466	1,025,891	1,046,570	0.980	-0.020			4,466	1,025,891	
6/12/2020	6,769	494,267	1,046,570	0.472	-0.750			6,769	494,267	
6/13/2020	2,298	232,980	1,046,570	0.223	-1.502			2,298	232,980	
6/14/2020	2,607	226,165	1,046,570	0.216	-1.532	834	25,656	1,773	200,509	
6/15/2020	3,066	349,929	1,046,570	0.334	-1.096			3,066	349,929	
6/16/2020	1,549	138,371	1,046,570	0.132	-2.023			1,549	138,371	
6/17/2020	3,277	283,121	1,046,570	0.271	-1.307			3,277	283,121	
6/18/2020	5,202	662,586	1,046,570	0.633	-0.457			5,202	662,586	
6/19/2020	5,738	438,069	1,046,570	0.419	-0.871	3,886	251,869	1,852	186,200	
6/20/2020	4,272	501,616	1,046,570	0.479	-0.735			4,272	501,616	
6/21/2020	9,432	1,592,221	1,046,570	1.521	0.420			9,432	1,592,221	
6/22/2020	3,266	348,138	1,046,570	0.333	-1.101			3,266	348,138	
6/23/2020	3,308	298,475	1,046,570	0.285	-1.255			3,308	298,475	
6/24/2020	11,443	441,252	1,046,570	0.422	-0.864			11,443	441,252	
6/25/2020	4,952	339,466	1,046,570	0.324	-1.126			4,952	339,466	
6/26/2020	1,646	85,711	1,046,570	0.082	-2.502			1,646	85,711	
6/27/2020	2,171	205,371	1,046,570	0.196	-1.628			2,171	205,371	
6/28/2020	3,426	366,066	1,046,570	0.350	-1.050			3,426	366,066	
6/29/2020	2,261	280,649	1,046,570	0.268	-1.316			2,261	280,649	
6/30/2020	3,304	283,256	1,046,570	0.271	-1.307			3,304	283,256	
7/1/2020	1,327	115,160	1,046,570	0.110	-2.207			1,327	115,160	
7/2/2020	3,192	424,851	1,046,570	0.406	-0.902			3,192	424,851	
7/3/2020	10,102	951,428	1,046,570	0.909	-0.095			10,102	951,428	
7/4/2020	7,477	732,527	1,046,570	0.700	-0.357			7,477	732,527	
7/5/2020	5,399	447,265	1,046,570	0.427	-0.850			5,399	447,265	
7/6/2020	10,419	1,024,361	1,046,570	0.979	-0.021			10,419	1,024,361	
7/7/2020	8,315	851,995	1,046,570	0.814	-0.206			8,315	851,995	
7/8/2020	6,575	879,383	1,046,570	0.840	-0.174	2,706	213,414	3,869	665,969	
7/9/2020	10,410	1,018,138	1,046,570	0.973	-0.028	3,397	444,179	7,013	573,959	
7/10/2020	10,139	1,709,970	1,046,570	1.634	0.491			10,139	1,709,970	
7/11/2020	2,632	614,773	1,046,570	0.587	-0.532			2,632	614,773	
7/12/2020	1,837	161,343	1,046,570	0.154	-1.870			1,837	161,343	
7/13/2020	1,486	141,083	1,046,570	0.135	-2.004			1,486	141,083	
7/14/2020	1,439	123,825	1,046,570	0.118	-2.134			1,439	123,825	
7/15/2020	5,671	971,199	1,046,570	0.928	-0.075			5,671	971,199	
7/16/2020	3,388	392,659	1,046,570	0.375	-0.980			3,388	392,659	
7/17/2020	2,237	188,350	1,046,570	0.180	-1.715			2,237	188,350	
7/18/2020	5,159	511,690	1,046,570	0.489	-0.716			5,159	511,690	
7/19/2020	21,117	2,808,788	1,046,570	2.684	0.987	6,790	495,670	14,327	2,313,118	
7/20/2020	3,028	267,623	1,046,570	0.256	-1.364			3,028	267,623	
7/21/2020	2,788	442,337	1,046,570	0.423	-0.861			2,788	442,337	
7/22/2020	6,211	312,938	1,046,570	0.299	-1.207	2,810	19,329	3,401	293,609	
7/23/2020	1,877	310,338	1,046,570	0.297	-1.216			1,877	310,338	
7/24/2020	3,454	504,735	1,046,570	0.482	-0.729			3,454	504,735	
7/25/2020	1,139	119,822	1,046,570	0.114	-2.167			1,139	119,822	
7/26/2020	386	51,230	1,046,570	0.049	-3.017			386	51,230	
7/27/2020	10,101	1,223,603	1,046,570	1.169	0.156	533	41,574	9,568	1,182,029	
7/28/2020	892	135,576	1,046,570	0.130	-2.044			892	135,576	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - OE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
7/29/2020	2,786	306,620	1,046,570	0.293	-1.228			2,786	306,620	
7/30/2020	1,088	94,696	1,046,570	0.090	-2.403			1,088	94,696	
7/31/2020	911	87,855	1,046,570	0.084	-2.478			911	87,855	
8/1/2020	2,335	371,326	1,046,570	0.355	-1.036			2,335	371,326	
8/2/2020	1,392	257,240	1,046,570	0.246	-1.403			1,392	257,240	
8/3/2020	1,288	210,596	1,046,570	0.201	-1.603			1,288	210,596	
8/4/2020	9,331	999,677	1,046,570	0.955	-0.046	2,707	235,145	6,624	764,532	
8/5/2020	7,027	1,013,186	1,046,570	0.968	-0.032			7,027	1,013,186	
8/6/2020	1,005	86,329	1,046,570	0.082	-2.495			1,005	86,329	
8/7/2020	462	29,724	1,046,570	0.028	-3.561			462	29,724	
8/8/2020	1,239	263,985	1,046,570	0.252	-1.377			1,239	263,985	
8/9/2020	711	62,124	1,046,570	0.059	-2.824			711	62,124	
8/10/2020	6,772	751,486	1,046,570	0.718	-0.331			6,772	751,486	
8/11/2020	2,765	384,249	1,046,570	0.367	-1.002			2,765	384,249	
8/12/2020	1,779	244,001	1,046,570	0.233	-1.456			1,779	244,001	
8/13/2020	1,074	105,842	1,046,570	0.101	-2.291			1,074	105,842	
8/14/2020	1,236	144,446	1,046,570	0.138	-1.980			1,236	144,446	
8/15/2020	775	107,842	1,046,570	0.103	-2.273			775	107,842	
8/16/2020	2,230	183,352	1,046,570	0.175	-1.742	920	25,296	1,310	158,056	
8/17/2020	960	77,885	1,046,570	0.074	-2.598			960	77,885	
8/18/2020	1,689	149,481	1,046,570	0.143	-1.946			1,689	149,481	
8/19/2020	11,282	977,264	1,046,570	0.934	-0.069	10,017	909,159	1,265	68,105	
8/20/2020	1,353	103,045	1,046,570	0.098	-2.318			1,353	103,045	
8/21/2020	1,019	92,557	1,046,570	0.088	-2.425			1,019	92,557	
8/22/2020	1,184	117,517	1,046,570	0.112	-2.187			1,184	117,517	
8/23/2020	3,804	582,317	1,046,570	0.556	-0.586			3,804	582,317	
8/24/2020	3,601	409,310	1,046,570	0.391	-0.939			3,601	409,310	
8/25/2020	9,915	1,386,184	1,046,570	1.325	0.281			9,915	1,386,184	
8/26/2020	1,987	213,831	1,046,570	0.204	-1.588			1,987	213,831	
8/27/2020	19,163	6,585,397	1,046,570	6.292	1.839			19,163	6,585,397	1
8/28/2020	13,875	2,162,795	1,046,570	2.067	0.726			13,875	2,162,795	
8/29/2020	10,628	1,120,601	1,046,570	1.071	0.068			10,628	1,120,601	
8/30/2020	3,373	272,120	1,046,570	0.260	-1.347			3,373	272,120	
8/31/2020	5,774	384,595	1,046,570	0.367	-1.001			5,774	384,595	
9/1/2020	301	25,949	1,046,570	0.025	-3.697			301	25,949	
9/2/2020	1,810	242,501	1,046,570	0.232	-1.462			1,810	242,501	
9/3/2020	597	58,773	1,046,570	0.056	-2.880			597	58,773	
9/4/2020	1,266	136,771	1,046,570	0.131	-2.035			1,266	136,771	
9/5/2020	980	93,871	1,046,570	0.090	-2.411			980	93,871	
9/6/2020	1,058	101,401	1,046,570	0.097	-2.334			1,058	101,401	
9/7/2020	15,688	1,991,019	1,046,570	1.902	0.643	1,411	114,291	14,277	1,876,728	
9/8/2020	2,201	312,600	1,046,570	0.299	-1.208			2,201	312,600	
9/9/2020	4,515	786,859	1,046,570	0.752	-0.285	2,473	630,885	2,042	155,974	
9/10/2020	2,854	301,800	1,046,570	0.288	-1.244			2,854	301,800	
9/11/2020	776	100,208	1,046,570	0.096	-2.346			776	100,208	
9/12/2020	376	32,293	1,046,570	0.031	-3.478			376	32,293	
9/13/2020	8,192	474,966	1,046,570	0.454	-0.790			8,192	474,966	
9/14/2020	896	130,825	1,046,570	0.125	-2.079			896	130,825	
9/15/2020	2,780	168,574	1,046,570	0.161	-1.826			2,780	168,574	
9/16/2020	1,107	137,397	1,046,570	0.131	-2.030			1,107	137,397	
9/17/2020	3,016	270,041	1,046,570	0.258	-1.355			3,016	270,041	
9/18/2020	903	70,446	1,046,570	0.067	-2.698			903	70,446	
9/19/2020	937	71,302	1,046,570	0.068	-2.686			937	71,302	
9/20/2020	1,079	97,918	1,046,570	0.094	-2.369			1,079	97,918	
9/21/2020	7,574	698,676	1,046,570	0.668	-0.404			7,574	698,676	
9/22/2020	572	51,639	1,046,570	0.049	-3.009			572	51,639	
9/23/2020	2,298	218,919	1,046,570	0.209	-1.565			2,298	218,919	
9/24/2020	1,577	334,969	1,046,570	0.320	-1.139			1,577	334,969	
9/25/2020	2,239	155,188	1,046,570	0.148	-1.909			2,239	155,188	
9/26/2020	681	47,585	1,046,570	0.045	-3.091			681	47,585	
9/27/2020	3,797	328,310	1,046,570	0.314	-1.159			3,797	328,310	
9/28/2020	2,273	284,070	1,046,570	0.271	-1.304			2,273	284,070	
9/29/2020	2,456	322,915	1,046,570	0.309	-1.176			2,456	322,915	
9/30/2020	3,377	394,387	1,046,570	0.377	-0.976			3,377	394,387	
10/1/2020	2,317	156,605	1,046,570	0.150	-1.900			2,317	156,605	
10/2/2020	518	41,799	1,046,570	0.040	-3.220			518	41,799	
10/3/2020	2,507	246,674	1,046,570	0.236	-1.445			2,507	246,674	
10/4/2020	850	61,700	1,046,570	0.059	-2.831			850	61,700	
10/5/2020	6,158	312,784	1,046,570	0.299	-1.208			6,158	312,784	
10/6/2020	3,792	136,880	1,046,570	0.131	-2.034	2,706	27,060	1,086	109,820	
10/7/2020	3,023	168,386	1,046,570	0.161	-1.827			3,023	168,386	
10/8/2020	1,017	121,257	1,046,570	0.116	-2.155			1,017	121,257	
10/9/2020	500	42,322	1,046,570	0.040	-3.208			500	42,322	
10/10/2020	1,765	181,887	1,046,570	0.174	-1.750			1,765	181,887	
10/11/2020	4,036	514,352	1,046,570	0.491	-0.710			4,036	514,352	
10/12/2020	4,035	476,961	1,046,570	0.456	-0.786			4,035	476,961	
10/13/2020	4,734	551,607	1,046,570	0.527	-0.640			4,734	551,607	
10/14/2020	2,275	170,096	1,046,570	0.163	-1.817			2,275	170,096	
10/15/2020	2,596	146,083	1,046,570	0.140	-1.969			2,596	146,083	
10/16/2020	820	139,325	1,046,570	0.133	-2.016			820	139,325	
10/17/2020	9,360	412,544	1,046,570	0.394	-0.931			9,360	412,544	
10/18/2020	1,073	67,603	1,046,570	0.065	-2.740			1,073	67,603	
10/19/2020	982	115,337	1,046,570	0.110	-2.205			982	115,337	
10/20/2020	4,392	348,323	1,046,570	0.333	-1.100			4,392	348,323	
10/21/2020	3,525	244,145	1,046,570	0.233	-1.456			3,525	244,145	
10/22/2020	1,247	191,110	1,046,570	0.183	-1.700			1,247	191,110	
10/23/2020	6,704	676,938	1,046,570	0.647	-0.436			6,704	676,938	
10/24/2020	646	59,188	1,046,570	0.057	-2.873			646	59,188	
10/25/2020	2,214	208,131	1,046,570	0.199	-1.615			2,214	208,131	
10/26/2020	2,431	148,157	1,046,570	0.142	-1.955			2,431	148,157	
10/27/2020	3,049	221,280	1,046,570	0.211	-1.554			3,049	221,280	
10/28/2020	610	45,264	1,046,570	0.043	-3.141			610	45,264	
10/29/2020	5,399	712,900	1,046,570	0.681	-0.384			5,399	712,900	
10/30/2020	1,930	266,581	1,046,570	0.255	-1.368			1,930	266,581	
10/31/2020	2,130	232,145	1,046,570	0.222	-1.506			2,130	232,145	
11/1/2020	27,325	2,733,355	1,046,570	2.612	0.960	7,755	563,482	19,570	2,169,873	
11/2/2020	1,270	172,191	1,046,570	0.165	-1.805			1,270	172,191	
11/3/2020	4,058	318,616	1,046,570	0.304	-1.189			4,058	318,616	
11/4/2020	6,408	479,210	1,046,570	0.458	-0.781	957	39,237	5,451	439,973	
11/5/2020	627	50,020	1,046,570	0.048	-3.041			627	50,020	
11/6/2020	1,002	76,194	1,046,570	0.073	-2.620			1,002	76,194	
11/7/2020	1,956	144,683	1,046,570	0.138	-1.979			1,956	144,683	
11/8/2020	1,126	131,499	1,046,570	0.126	-2.074			1,126	131,499	
11/9/2020	2,042	149,474	1,046,570	0.143	-1.946			2,042	149,474	
11/10/2020	254	22,119	1,046,570	0.021	-3.857			254	22,119	
11/11/2020	6,426	129,517	1,046,570	0.124	-2.089			6,426	129,517	
11/12/2020	755	50,496	1,046,570	0.048	-3.031			755	50,496	
11/13/2020	234	18,140	1,046,570	0.017	-4.055			234	18,140	

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11/14/2020	780	106,269	1,046,570	0.102	-2.287			780	106,269	
11/15/2020	152,295	120,765,304	1,046,570	115.392	4.748	24,522	7,004,241	127,773	113,761,063	1
11/16/2020	1,454	874,027	1,046,570	0.835	-0.180			1,454	874,027	
11/17/2020	5,156	806,224	1,046,570	0.770	-0.261			5,156	806,224	
11/18/2020	1,468	144,293	1,046,570	0.138	-1.981			1,468	144,293	
11/19/2020	2,462	298,490	1,046,570	0.285	-1.255	1,179	115,390	1,283	183,100	
11/20/2020	3,241	287,721	1,046,570	0.275	-1.291			3,241	287,721	
11/21/2020	1,808	175,496	1,046,570	0.168	-1.786			1,808	175,496	
11/22/2020	9,238	875,743	1,046,570	0.837	-0.178	1,084	138,712	8,154	737,031	
11/23/2020	3,876	67,869	1,046,570	0.065	-2.736			3,876	67,869	
11/24/2020	1,128	95,061	1,046,570	0.091	-2.399			1,128	95,061	
11/25/2020	1,728	206,916	1,046,570	0.198	-1.621			1,728	206,916	
11/26/2020	3,986	308,904	1,046,570	0.295	-1.220			3,986	308,904	
11/27/2020	224	31,655	1,046,570	0.030	-3.498			224	31,655	
11/28/2020	275	44,618	1,046,570	0.043	-3.155			275	44,618	
11/29/2020	145	14,424	1,046,570	0.014	-4.284			145	14,424	
11/30/2020	5,442	549,306	1,046,570	0.525	-0.645	3,176	374,768	2,266	174,538	
12/1/2020	26,086	4,968,435	1,046,570	4.747	1.558			26,086	4,968,435	1
12/2/2020	3,024	358,209	1,046,570	0.342	-1.072			3,024	358,209	
12/3/2020	14,881	817,352	1,046,570	0.781	-0.247	13,747	748,615	1,134	68,737	
12/4/2020	643	116,417	1,046,570	0.111	-2.196			643	116,417	
12/5/2020	1,233	155,362	1,046,570	0.148	-1.908			1,233	155,362	
12/6/2020	150	34,578	1,046,570	0.033	-3.410			150	34,578	
12/7/2020	2,990	164,561	1,046,570	0.157	-1.850	2,238	100,710	752	63,851	
12/8/2020	320	28,136	1,046,570	0.027	-3.616			320	28,136	
12/9/2020	814	71,187	1,046,570	0.068	-2.688			814	71,187	
12/10/2020	355	45,347	1,046,570	0.043	-3.139			355	45,347	
12/11/2020	1,900	91,070	1,046,570	0.087	-2.442			1,900	91,070	
12/12/2020	1,747	152,635	1,046,570	0.146	-1.925			1,747	152,635	
12/13/2020	1,256	70,785	1,046,570	0.068	-2.694			1,256	70,785	
12/14/2020	567	70,801	1,046,570	0.068	-2.693			567	70,801	
12/15/2020	8,098	437,743	1,046,570	0.418	-0.872	7,699	414,560	399	23,183	
12/16/2020	485	32,797	1,046,570	0.031	-3.463			485	32,797	
12/17/2020	2,160	340,116	1,046,570	0.325	-1.124			2,160	340,116	
12/18/2020	1,279	135,676	1,046,570	0.130	-2.043			1,279	135,676	
12/19/2020	1,371	134,433	1,046,570	0.128	-2.052			1,371	134,433	
12/20/2020	2,520	117,140	1,046,570	0.112	-2.190			2,520	117,140	
12/21/2020	321	23,454	1,046,570	0.022	-3.798			321	23,454	
12/22/2020	106	9,268	1,046,570	0.009	-4.727			106	9,268	
12/23/2020	316	16,687	1,046,570	0.016	-4.139			316	16,687	
12/24/2020	2,381	182,169	1,046,570	0.174	-1.748			2,381	182,169	
12/25/2020	1,014	105,889	1,046,570	0.101	-2.291			1,014	105,889	
12/26/2020	372	42,864	1,046,570	0.041	-3.195			372	42,864	
12/27/2020	2,459	154,964	1,046,570	0.148	-1.910	2,179	126,054	280	28,910	
12/28/2020	1,792	175,451	1,046,570	0.168	-1.786			1,792	175,451	
12/29/2020	431	76,777	1,046,570	0.073	-2.612			431	76,777	
12/30/2020	1,074	132,344	1,046,570	0.126	-2.068			1,074	132,344	

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
1/1/2012	2,313	237,462	304,045	0.781	-0.247					
1/2/2012	1	66	304,045	0.000	-8.435					
1/3/2012	9	1,223	304,045	0.004	-5.516					
1/4/2012	33	2,005	304,045	0.007	-5.022					
1/5/2012	51	3,874	304,045	0.013	-4.363					
1/6/2012	53	3,532	304,045	0.012	-4.455					
1/7/2012	48	2,160	304,045	0.007	-4.947					
1/8/2012	89	9,721	304,045	0.032	-3.443					
1/9/2012	16	1,008	304,045	0.003	-5.709					
1/10/2012	37	3,649	304,045	0.012	-4.423					
1/11/2012	96	25,034	304,045	0.082	-2.497					
1/12/2012	224	16,941	304,045	0.056	-2.887					
1/13/2012	114	13,162	304,045	0.043	-3.140					
1/14/2012	2	141	304,045	0.000	-7.676					
1/15/2012	17	562	304,045	0.002	-6.293					
1/16/2012	101	4,807	304,045	0.016	-4.147					
1/17/2012	4,752	219,708	304,045	0.723	-0.325					
1/18/2012	1	123	304,045	0.000	-7.813					
1/19/2012	244	30,168	304,045	0.099	-2.310					
1/20/2012	1,430	107,605	304,045	0.354	-1.039					
1/21/2012	6	608	304,045	0.002	-6.215					
1/22/2012	3,041	78,090	304,045	0.257	-1.359					
1/23/2012	3,844	333,847	304,045	1.098	0.094					
1/24/2012	44	715	304,045	0.002	-6.053					
1/25/2012	629	9,425	304,045	0.031	-3.474					
1/26/2012	23	1,127	304,045	0.004	-5.598					
1/27/2012	126	5,912	304,045	0.019	-3.940					
1/28/2012	109	16,923	304,045	0.056	-2.889					
1/29/2012	2	122	304,045	0.000	-7.821					
1/30/2012	1	59	304,045	0.000	-8.547					
1/31/2012	157	10,486	304,045	0.034	-3.367					
2/1/2012	196	3,559	304,045	0.012	-4.448					
2/2/2012	41	4,818	304,045	0.016	-4.145					
2/3/2012	69	2,686	304,045	0.009	-4.729					
2/4/2012	4	239	304,045	0.001	-7.148					
2/5/2012	-	-	304,045							
2/6/2012	68	4,739	304,045	0.016	-4.161					
2/7/2012	37	2,268	304,045	0.007	-4.898					
2/8/2012	6	342	304,045	0.001	-6.790					
2/9/2012	12	822	304,045	0.003	-5.913					
2/10/2012	26	692	304,045	0.002	-6.085					
2/11/2012	245	20,239	304,045	0.067	-2.710					
2/12/2012	1	81	304,045	0.000	-8.230					
2/13/2012	38	6,662	304,045	0.022	-3.821					
2/14/2012	51	4,692	304,045	0.015	-4.171					
2/15/2012	23	974	304,045	0.003	-5.744					
2/16/2012	234	30,641	304,045	0.101	-2.295					
2/17/2012	69	3,933	304,045	0.013	-4.348					
2/18/2012	150	12,722	304,045	0.042	-3.174					
2/19/2012	41	2,305	304,045	0.008	-4.882					
2/20/2012	11	1,738	304,045	0.006	-5.164					
2/21/2012	36	2,638	304,045	0.009	-4.747					
2/22/2012	106	7,149	304,045	0.024	-3.750					
2/23/2012	6,790	54,363	304,045	0.179	-1.721					
2/24/2012	178	7,898	304,045	0.026	-3.651					
2/25/2012	69	6,333	304,045	0.021	-3.871					
2/26/2012	55	2,475	304,045	0.008	-4.811					
2/27/2012	70	3,352	304,045	0.011	-4.508					
2/28/2012	875	22,222	304,045	0.073	-2.616					
2/29/2012	1,688	50,079	304,045	0.165	-1.804					
3/1/2012	19	2,688	304,045	0.009	-4.728					
3/2/2012	2,153	475,339	304,045	1.563	0.447					
3/3/2012	1,075	87,402	304,045	0.287	-1.247					
3/4/2012	56	3,257	304,045	0.011	-4.536					
3/5/2012	4	520	304,045	0.002	-6.371					
3/6/2012	47	3,272	304,045	0.011	-4.532					
3/7/2012	459	37,843	304,045	0.124	-2.084					
3/8/2012	61	6,267	304,045	0.021	-3.882					
3/9/2012	69	4,122	304,045	0.014	-4.301					
3/10/2012	8	432	304,045	0.001	-6.557					
3/11/2012	6	692	304,045	0.002	-6.085					
3/12/2012	717	77,837	304,045	0.256	-1.363					
3/13/2012	10,024	994,951	304,045	3.272	1.186					
3/14/2012	38	2,713	304,045	0.009	-4.719					
3/15/2012	103	15,997	304,045	0.053	-2.945					
3/16/2012	1,802	32,430	304,045	0.107	-2.238					
3/17/2012	31	1,767	304,045	0.006	-5.148					
3/18/2012	2,028	159,758	304,045	0.525	-0.644					
3/19/2012	1,603	136,988	304,045	0.451	-0.797					
3/20/2012	83	3,650	304,045	0.012	-4.422					
3/21/2012	118	2,480	304,045	0.008	-4.809					
3/22/2012	30	2,018	304,045	0.007	-5.015					
3/23/2012	434	15,555	304,045	0.051	-2.973					
3/24/2012	95	13,118	304,045	0.043	-3.143					
3/25/2012	2,162	23,409	304,045	0.077	-2.564					
3/26/2012	88	10,480	304,045	0.034	-3.368					
3/27/2012	22	836	304,045	0.003	-5.896					
3/28/2012	348	71,645	304,045	0.236	-1.445					
3/29/2012	218	20,609	304,045	0.068	-2.691					
3/30/2012	2,623	216,440	304,045	0.712	-0.340					
3/31/2012	33	4,532	304,045	0.015	-4.206					
4/1/2012	26	1,867	304,045	0.006	-5.093					
4/2/2012	55	2,265	304,045	0.007	-4.900					
4/3/2012	261	22,647	304,045	0.074	-2.597					
4/4/2012	2	149	304,045	0.000	-7.621					
4/5/2012	17	1,486	304,045	0.005	-5.321					
4/6/2012	40	1,467	304,045	0.005	-5.334					
4/7/2012	47	4,717	304,045	0.016	-4.166					
4/8/2012	1	63	304,045	0.000	-8.482					
4/9/2012	88	5,842	304,045	0.019	-3.952					
4/10/2012	20	1,207	304,045	0.004	-5.529					
4/11/2012	28	1,774	304,045	0.006	-5.144					
4/12/2012	202	13,066	304,045	0.043	-3.147					
4/13/2012	24	2,602	304,045	0.009	-4.761					
4/14/2012	1,440	41,139	304,045	0.135	-2.000					
4/15/2012	313	19,531	304,045	0.064	-2.745					
4/16/2012	1,227	163,488	304,045	0.538	-0.620					
4/17/2012	2,236	134,566	304,045	0.443	-0.815					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)
2017	-3.222	1.905	4.664
2018	-3.227	1.886	4.429
2019	-3.169	1.842	4.197
2020	-3.112	1.841	4.435
2021	-3.047	1.794	4.216

NOTES

(1) *Mean and Standard Deviation were calculated for previous 5 years of data.

NARRATIVE

(1) The IEEE 2.5 Beta Method was used to exclude major events from reliability data. See O.A.C. 4901:1-10-01(T).

(2) "TMED NEW RULE" means TMEDs calculated under O.A.C. 4901:1-10-01(T).

ASSUMPTIONS

(1) The calculation of TMED included transmission outages in the daily outage data.

(2) The Companies excluded days where the daily SAIDI exceeded the TMED value from their respective SAIFI and CAIDI reliability calculations.

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
4/18/2012	46	5,460	304,045	0.018	-4.020					
4/19/2012	110	10,169	304,045	0.033	-3.398					
4/20/2012	381	115,522	304,045	0.380	-0.968					
4/21/2012	101	12,018	304,045	0.040	-3.231					
4/22/2012	28	2,482	304,045	0.008	-4.808					
4/23/2012	1,193	93,951	304,045	0.309	-1.174					
4/24/2012	740	68,326	304,045	0.225	-1.493					
4/25/2012	20	1,140	304,045	0.004	-5.586					
4/26/2012	87	10,275	304,045	0.034	-3.387					
4/27/2012	4,393	325,286	304,045	1.070	0.068					
4/28/2012	1,312	15,086	304,045	0.050	-3.003					
4/29/2012	75	3,897	304,045	0.013	-4.357					
4/30/2012	1,850	78,131	304,045	0.257	-1.359					
5/1/2012	1,959	154,418	304,045	0.508	-0.678					
5/2/2012	234	13,683	304,045	0.045	-3.101					
5/3/2012	5,400	194,816	304,045	0.641	-0.445					
5/4/2012	136	20,600	304,045	0.068	-2.692					
5/5/2012	10	585	304,045	0.002	-6.253					
5/6/2012	42	2,791	304,045	0.009	-4.691					
5/7/2012	1,077	136,006	304,045	0.447	-0.804					
5/8/2012	160	12,263	304,045	0.040	-3.211					
5/9/2012	29	3,708	304,045	0.012	-4.407					
5/10/2012	80	7,623	304,045	0.025	-3.686					
5/11/2012	53	3,520	304,045	0.012	-4.459					
5/12/2012	627	14,066	304,045	0.046	-3.073					
5/13/2012	36	2,251	304,045	0.007	-4.906					
5/14/2012	90	5,064	304,045	0.017	-4.095					
5/15/2012	9,435	467,120	304,045	1.536	0.429					
5/16/2012	38	2,943	304,045	0.010	-4.638					
5/17/2012	336	50,813	304,045	0.167	-1.789					
5/18/2012	772	31,024	304,045	0.102	-2.282					
5/19/2012	97	8,255	304,045	0.027	-3.606					
5/20/2012	29	2,192	304,045	0.007	-4.932					
5/21/2012	842	71,186	304,045	0.234	-1.452					
5/22/2012	58	8,317	304,045	0.027	-3.599					
5/23/2012	150	28,705	304,045	0.094	-2.360					
5/24/2012	133	10,253	304,045	0.034	-3.390					
5/25/2012	258	32,472	304,045	0.107	-2.237					
5/26/2012	98	7,739	304,045	0.025	-3.671					
5/27/2012	155	21,524	304,045	0.071	-2.648					
5/28/2012	638	58,870	304,045	0.194	-1.642					
5/29/2012	2,213	273,143	304,045	0.898	-0.107					
5/30/2012	143	10,775	304,045	0.035	-3.340					
5/31/2012	101	11,602	304,045	0.038	-3.266					
6/1/2012	474	31,232	304,045	0.103	-2.276					
6/2/2012	119	11,569	304,045	0.038	-3.269					
6/3/2012	399	44,195	304,045	0.145	-1.929					
6/4/2012	179	11,695	304,045	0.038	-3.258					
6/5/2012	414	32,876	304,045	0.108	-2.224					
6/6/2012	594	41,918	304,045	0.138	-1.981					
6/7/2012	103	8,523	304,045	0.028	-3.574					
6/8/2012	2,520	132,103	304,045	0.434	-0.834					
6/9/2012	107	13,153	304,045	0.043	-3.141					
6/10/2012	179	19,025	304,045	0.063	-2.771					
6/11/2012	358	33,644	304,045	0.111	-2.201					
6/12/2012	310	94,320	304,045	0.310	-1.170					
6/13/2012	122	10,894	304,045	0.036	-3.329					
6/14/2012	737	32,654	304,045	0.107	-2.231					
6/15/2012	115	11,718	304,045	0.039	-3.256					
6/16/2012	73	5,273	304,045	0.017	-4.055					
6/17/2012	1,288	181,540	304,045	0.597	-0.516					
6/18/2012	4,104	301,445	304,045	0.991	-0.009					
6/19/2012	1,318	118,723	304,045	0.390	-0.940					
6/20/2012	199	21,144	304,045	0.070	-2.666					
6/21/2012	368	42,234	304,045	0.139	-1.974					
6/22/2012	1,972	66,163	304,045	0.218	-1.525					
6/23/2012	1,421	41,180	304,045	0.135	-1.999					
6/24/2012	159	20,606	304,045	0.068	-2.692					
6/25/2012	201	15,597	304,045	0.051	-2.970					
6/26/2012	249	50,286	304,045	0.165	-1.799					
6/27/2012	1,316	63,053	304,045	0.207	-1.573					
6/28/2012	721	95,860	304,045	0.315	-1.154					
6/29/2012	3,096	1,038,686	304,045	3.416	1.229					
6/30/2012	54	5,571	304,045	0.018	-4.000					
7/1/2012	8,688	1,635,093	304,045	5.378	1.682					
7/2/2012	3,779	553,036	304,045	1.819	0.598					
7/3/2012	494	21,024	304,045	0.069	-2.672					
7/4/2012	775	105,980	304,045	0.349	-1.054					
7/5/2012	34,444	40,607,038	304,045	133.556	4.895					
7/6/2012	6,833	3,930,110	304,045	12.926	2.559					
7/7/2012	1,984	967,073	304,045	3.181	1.157					
7/8/2012	198	78,540	304,045	0.258	-1.354					
7/9/2012	424	132,099	304,045	0.434	-0.834					
7/10/2012	192	22,162	304,045	0.073	-2.619					
7/11/2012	63	7,201	304,045	0.024	-3.743					
7/12/2012	141	13,129	304,045	0.043	-3.142					
7/13/2012	80	5,654	304,045	0.019	-3.985					
7/14/2012	90	6,445	304,045	0.021	-3.854					
7/15/2012	291	59,623	304,045	0.196	-1.629					
7/16/2012	339	45,201	304,045	0.149	-1.906					
7/17/2012	2,639	174,220	304,045	0.573	-0.557					
7/18/2012	5,307	277,989	304,045	0.914	-0.090					
7/19/2012	6,222	1,870,557	304,045	6.152	1.817					
7/20/2012	2,276	424,354	304,045	1.396	0.333					
7/21/2012	155	14,395	304,045	0.047	-3.050					
7/22/2012	77	5,687	304,045	0.019	-3.979					
7/23/2012	1,084	69,743	304,045	0.229	-1.472					
7/24/2012	1,558	45,922	304,045	0.151	-1.890					
7/25/2012	135	20,037	304,045	0.066	-2.720					
7/26/2012	844	49,710	304,045	0.163	-1.811					
7/27/2012	1,697	91,323	304,045	0.300	-1.203					
7/28/2012	73	11,866	304,045	0.039	-3.243					
7/29/2012	123	17,465	304,045	0.057	-2.857					
7/30/2012	621	47,772	304,045	0.157	-1.851					
7/31/2012	566	28,840	304,045	0.095	-2.355					
8/1/2012	319	47,952	304,045	0.158	-1.847					
8/2/2012	285	44,161	304,045	0.145	-1.929					
8/3/2012	618	26,042	304,045	0.086	-2.457					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
8/4/2012	14,700	2,711,135	304,045	8.917	2.188					
8/5/2012	1,184	137,217	304,045	0.451	-0.796					
8/6/2012	180	19,310	304,045	0.064	-2.757					
8/7/2012	241	28,130	304,045	0.093	-2.380					
8/8/2012	147	33,224	304,045	0.109	-2.214					
8/9/2012	791	124,424	304,045	0.409	-0.893					
8/10/2012	2,085	224,103	304,045	0.737	-0.305					
8/11/2012	3,290	325,167	304,045	1.069	0.067					
8/12/2012	58	21,758	304,045	0.072	-2.637					
8/13/2012	31	1,536	304,045	0.005	-5.288					
8/14/2012	255	40,922	304,045	0.135	-2.006					
8/15/2012	55	5,157	304,045	0.017	-4.077					
8/16/2012	123	18,781	304,045	0.062	-2.784					
8/17/2012	62	4,237	304,045	0.014	-4.273					
8/18/2012	395	35,163	304,045	0.116	-2.157					
8/19/2012	45	3,036	304,045	0.010	-4.607					
8/20/2012	28	3,145	304,045	0.010	-4.571					
8/21/2012	207	16,344	304,045	0.054	-2.923					
8/22/2012	60	5,177	304,045	0.017	-4.073					
8/23/2012	65	6,449	304,045	0.021	-3.853					
8/24/2012	103	16,900	304,045	0.056	-2.890					
8/25/2012	171	13,102	304,045	0.043	-3.144					
8/26/2012	145	8,640	304,045	0.028	-3.561					
8/27/2012	1,089	92,814	304,045	0.305	-1.187					
8/28/2012	259	34,596	304,045	0.114	-2.173					
8/29/2012	222	14,742	304,045	0.048	-3.026					
8/30/2012	134	6,762	304,045	0.022	-3.806					
8/31/2012	2,485	169,685	304,045	0.558	-0.583					
9/1/2012	129	8,790	304,045	0.029	-3.544					
9/2/2012	458	47,994	304,045	0.158	-1.846					
9/3/2012	32	2,297	304,045	0.008	-4.886					
9/4/2012	274	21,622	304,045	0.071	-2.643					
9/5/2012	142	11,777	304,045	0.039	-3.251					
9/6/2012	260	20,336	304,045	0.067	-2.705					
9/7/2012	117	3,887	304,045	0.013	-4.360					
9/8/2012	135	33,657	304,045	0.111	-2.201					
9/9/2012	106	10,531	304,045	0.035	-3.363					
9/10/2012	93	6,828	304,045	0.022	-3.796					
9/11/2012	27	2,662	304,045	0.009	-4.738					
9/12/2012	475	12,883	304,045	0.042	-3.161					
9/13/2012	1,483	179,681	304,045	0.591	-0.526					
9/14/2012	43	3,915	304,045	0.013	-4.352					
9/15/2012	60	2,854	304,045	0.009	-4.668					
9/16/2012	36	2,521	304,045	0.008	-4.793					
9/17/2012	226	15,953	304,045	0.052	-2.948					
9/18/2012	418	42,298	304,045	0.139	-1.972					
9/19/2012	130	7,735	304,045	0.025	-3.671					
9/20/2012	248	19,003	304,045	0.063	-2.773					
9/21/2012	11	866	304,045	0.003	-5.861					
9/22/2012	496	18,251	304,045	0.060	-2.813					
9/23/2012	317	29,930	304,045	0.098	-2.318					
9/24/2012	80	5,309	304,045	0.017	-4.048					
9/25/2012	287	14,041	304,045	0.046	-3.075					
9/26/2012	61	6,395	304,045	0.021	-3.862					
9/27/2012	120	8,384	304,045	0.028	-3.591					
9/28/2012	12	581	304,045	0.002	-6.260					
9/29/2012	14	1,798	304,045	0.006	-5.131					
9/30/2012	114	7,695	304,045	0.025	-3.677					
10/1/2012	56	4,709	304,045	0.015	-4.168					
10/2/2012	711	42,041	304,045	0.138	-1.979					
10/3/2012	595	61,602	304,045	0.203	-1.596					
10/4/2012	541	11,668	304,045	0.038	-3.260					
10/5/2012	84	5,375	304,045	0.018	-4.035					
10/6/2012	107	14,127	304,045	0.046	-3.069					
10/7/2012	18	1,438	304,045	0.005	-5.354					
10/8/2012	68	3,268	304,045	0.011	-4.533					
10/9/2012	52	2,781	304,045	0.009	-4.694					
10/10/2012	1,330	55,347	304,045	0.182	-1.704					
10/11/2012	429	39,617	304,045	0.130	-2.038					
10/12/2012	180	14,052	304,045	0.046	-3.074					
10/13/2012	869	13,300	304,045	0.044	-3.129					
10/14/2012	5,059	592,953	304,045	1.950	0.668					
10/15/2012	240	21,282	304,045	0.070	-2.659					
10/16/2012	141	8,854	304,045	0.029	-3.536					
10/17/2012	485	17,995	304,045	0.059	-2.827					
10/18/2012	867	60,286	304,045	0.198	-1.618					
10/19/2012	58	4,902	304,045	0.016	-4.128					
10/20/2012	4	319	304,045	0.001	-6.860					
10/21/2012	58	3,389	304,045	0.011	-4.497					
10/22/2012	240	10,295	304,045	0.034	-3.386					
10/23/2012	101	7,121	304,045	0.023	-3.754					
10/24/2012	6,917	1,132,750	304,045	3.726	1.315					
10/25/2012	603	84,930	304,045	0.279	-1.275					
10/26/2012	96	12,947	304,045	0.043	-3.156					
10/27/2012	35	3,042	304,045	0.010	-4.605					
10/28/2012	568	76,248	304,045	0.251	-1.383					
10/29/2012	6,458	774,758	304,045	2.548	0.935					
10/30/2012	742	136,073	304,045	0.448	-0.804					
10/31/2012	266	33,472	304,045	0.110	-2.206					
11/1/2012	9	1,104	304,045	0.004	-5.618					
11/2/2012	88	8,659	304,045	0.028	-3.559					
11/3/2012	143	17,556	304,045	0.058	-2.852					
11/4/2012	2	118	304,045	0.000	-7.854					
11/5/2012	273	32,183	304,045	0.106	-2.246					
11/6/2012	43	3,397	304,045	0.011	-4.494					
11/7/2012	259	22,799	304,045	0.075	-2.590					
11/8/2012	120	11,040	304,045	0.036	-3.316					
11/9/2012	227	21,860	304,045	0.072	-2.633					
11/10/2012	185	14,095	304,045	0.046	-3.071					
11/11/2012	182	13,518	304,045	0.044	-3.113					
11/12/2012	682	54,046	304,045	0.178	-1.727					
11/13/2012	57	4,753	304,045	0.016	-4.158					
11/14/2012	154	9,112	304,045	0.030	-3.508					
11/15/2012	99	6,104	304,045	0.020	-3.908					
11/16/2012	162	11,679	304,045	0.038	-3.259					
11/17/2012	160	8,234	304,045	0.027	-3.609					
11/18/2012	42	1,913	304,045	0.006	-5.069					
11/19/2012	51	4,031	304,045	0.013	-4.323					

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
11/20/2012	118	7,558	304,045	0.025	-3.695					
11/21/2012	58	4,640	304,045	0.015	-4.182					
11/22/2012	65	2,845	304,045	0.009	-4.672					
11/23/2012	162	19,150	304,045	0.063	-2.765					
11/24/2012	31	4,425	304,045	0.015	-4.230					
11/25/2012	56	3,016	304,045	0.010	-4.613					
11/26/2012	141	14,263	304,045	0.047	-3.060					
11/27/2012	63	3,317	304,045	0.011	-4.518					
11/28/2012	2,294	137,698	304,045	0.453	-0.792					
11/29/2012	101	8,645	304,045	0.028	-3.560					
11/30/2012	87	5,687	304,045	0.019	-3.979					
12/1/2012	210	22,153	304,045	0.073	-2.619					
12/2/2012	166	24,898	304,045	0.082	-2.502					
12/3/2012	16	1,215	304,045	0.004	-5.522					
12/4/2012	65	3,119	304,045	0.010	-4.580					
12/5/2012	235	25,030	304,045	0.082	-2.497					
12/6/2012	401	36,742	304,045	0.121	-2.113					
12/7/2012	26	1,614	304,045	0.005	-5.238					
12/8/2012	141	6,821	304,045	0.022	-3.797					
12/9/2012	37	5,184	304,045	0.017	-4.072					
12/10/2012	2	98	304,045	0.000	-8.040					
12/11/2012	134	10,206	304,045	0.034	-3.394					
12/12/2012	71	9,219	304,045	0.030	-3.496					
12/13/2012	2,398	136,467	304,045	0.449	-0.801					
12/14/2012	80	6,497	304,045	0.021	-3.846					
12/15/2012	43	2,168	304,045	0.007	-4.943					
12/16/2012	90	7,630	304,045	0.025	-3.685					
12/17/2012	89	6,561	304,045	0.022	-3.836					
12/18/2012	1,396	46,764	304,045	0.154	-1.872					
12/19/2012	130	9,281	304,045	0.031	-3.489					
12/20/2012	2,822	477,365	304,045	1.570	0.451					
12/21/2012	5,614	923,185	304,045	3.036	1.111					
12/22/2012	43	3,749	304,045	0.012	-4.396					
12/23/2012	33	3,354	304,045	0.011	-4.507					
12/24/2012	73	26,704	304,045	0.088	-2.432					
12/25/2012	112	10,642	304,045	0.035	-3.352					
12/26/2012	923	109,471	304,045	0.360	-1.022					
12/27/2012	1	169	304,045	0.001	-7.495					
12/28/2012	30	2,130	304,045	0.007	-4.961					
12/29/2012	102	9,833	304,045	0.032	-3.431					
12/30/2012	38	8,631	304,045	0.028	-3.562					
12/31/2012	4	480	304,045	0.002	-6.451					
1/1/2013	53	5,816	303,470	0.019	-3.955					
1/2/2013	3	257	303,470	0.001	-7.074					
1/3/2013	2	172	303,470	0.001	-7.476					
1/4/2013	114	10,950	303,470	0.036	-3.322					
1/5/2013	2	108	303,470	0.000	-7.941					
1/6/2013	7	322	303,470	0.001	-6.848					
1/7/2013	10	840	303,470	0.003	-5.890					
1/8/2013	86	7,076	303,470	0.023	-3.759					
1/9/2013	1,040	82,620	303,470	0.272	-1.301					
1/10/2013	90	9,857	303,470	0.032	-3.427					
1/11/2013	1,850	170,156	303,470	0.561	-0.579					
1/12/2013	68	7,010	303,470	0.023	-3.768					
1/13/2013	362	53,016	303,470	0.175	-1.745					
1/14/2013	1	94	303,470	0.000	-8.080					
1/15/2013	51	3,452	303,470	0.011	-4.476					
1/16/2013	108	12,363	303,470	0.041	-3.201					
1/17/2013	119	5,802	303,470	0.019	-3.957					
1/18/2013	2,688	172,162	303,470	0.567	-0.567					
1/19/2013	26	3,618	303,470	0.012	-4.429					
1/20/2013	1,854	246,890	303,470	0.814	-0.206					
1/21/2013	434	21,699	303,470	0.072	-2.638					
1/22/2013	18	3,282	303,470	0.011	-4.527					
1/23/2013	29	3,410	303,470	0.011	-4.489					
1/24/2013	115	1,883	303,470	0.006	-5.082					
1/25/2013	1	407	303,470	0.001	-6.614					
1/26/2013	35	2,909	303,470	0.010	-4.647					
1/27/2013	-	-	303,470							
1/28/2013	80	6,362	303,470	0.021	-3.865					
1/29/2013	74	7,144	303,470	0.024	-3.749					
1/30/2013	301	34,510	303,470	0.114	-2.174					
1/31/2013	198	16,818	303,470	0.055	-2.893					
2/1/2013	291	25,285	303,470	0.083	-2.485					
2/2/2013	2	122	303,470	0.000	-7.819					
2/3/2013	8	607	303,470	0.002	-6.215					
2/4/2013	666	20,042	303,470	0.066	-2.717					
2/5/2013	82	13,407	303,470	0.044	-3.120					
2/6/2013	19	1,226	303,470	0.004	-5.512					
2/7/2013	38	2,606	303,470	0.009	-4.757					
2/8/2013	33	3,832	303,470	0.013	-4.372					
2/9/2013	18	1,772	303,470	0.006	-5.143					
2/10/2013	4	328	303,470	0.001	-6.830					
2/11/2013	875	72,647	303,470	0.239	-1.430					
2/12/2013	44	1,184	303,470	0.004	-5.546					
2/13/2013	13	441	303,470	0.001	-6.534					
2/14/2013	-	-	303,470							
2/15/2013	1	626	303,470	0.002	-6.184					
2/16/2013	12	1,244	303,470	0.004	-5.497					
2/17/2013	45	2,610	303,470	0.009	-4.756					
2/18/2013	11	523	303,470	0.002	-6.363					
2/19/2013	154	14,238	303,470	0.047	-3.059					
2/20/2013	-	-	303,470							
2/21/2013	4	200	303,470	0.001	-7.325					
2/22/2013	30	1,420	303,470	0.005	-5.365					
2/23/2013	14	965	303,470	0.003	-5.751					
2/24/2013	18	962	303,470	0.003	-5.754					
2/25/2013	102	12,132	303,470	0.040	-3.219					
2/26/2013	3,875	514,313	303,470	1.695	0.528					
2/27/2013	244	25,904	303,470	0.085	-2.461					
2/28/2013	81	5,199	303,470	0.017	-4.067					
3/1/2013	3	410	303,470	0.001	-6.607					
3/2/2013	6	209	303,470	0.001	-7.281					
3/3/2013	68	4,109	303,470	0.014	-4.302					
3/4/2013	147	15,643	303,470	0.052	-2.965					
3/5/2013	16	3,008	303,470	0.010	-4.614					
3/6/2013	147	13,020	303,470	0.043	-3.149					
3/7/2013	-	-	303,470							

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3/8/2013	59	3,097	303,470	0.010	-4.585					
3/9/2013	42	4,402	303,470	0.015	-4.233					
3/10/2013	118	8,246	303,470	0.027	-3.606					
3/11/2013	279	50,356	303,470	0.166	-1.796					
3/12/2013	107	10,858	303,470	0.036	-3.330					
3/13/2013	12	3,300	303,470	0.011	-4.521					
3/14/2013	11	669	303,470	0.002	-6.117					
3/15/2013	82	5,380	303,470	0.018	-4.033					
3/16/2013	64	22,489	303,470	0.074	-2.602					
3/17/2013	13	544	303,470	0.002	-6.324					
3/18/2013	8	662	303,470	0.002	-6.128					
3/19/2013	482	44,878	303,470	0.148	-1.911					
3/20/2013	21	2,384	303,470	0.008	-4.847					
3/21/2013	274	35,825	303,470	0.118	-2.137					
3/22/2013	520	16,474	303,470	0.054	-2.913					
3/23/2013	24	3,765	303,470	0.012	-4.390					
3/24/2013	-	-	303,470							
3/25/2013	148	16,762	303,470	0.055	-2.896					
3/26/2013	37	2,988	303,470	0.010	-4.621					
3/27/2013	34	1,838	303,470	0.006	-5.107					
3/28/2013	40	4,772	303,470	0.016	-4.153					
3/29/2013	40	2,237	303,470	0.007	-4.910					
3/30/2013	27	1,358	303,470	0.004	-5.409					
3/31/2013	1,987	47,410	303,470	0.156	-1.856					
4/1/2013	13	1,237	303,470	0.004	-5.503					
4/2/2013	2	130	303,470	0.000	-7.756					
4/3/2013	21	2,218	303,470	0.007	-4.919					
4/4/2013	39	2,909	303,470	0.010	-4.647					
4/5/2013	26	1,509	303,470	0.005	-5.304					
4/6/2013	14	1,134	303,470	0.004	-5.590					
4/7/2013	123	14,344	303,470	0.047	-3.052					
4/8/2013	903	95,497	303,470	0.315	-1.156					
4/9/2013	38	3,269	303,470	0.011	-4.531					
4/10/2013	567	48,237	303,470	0.159	-1.839					
4/11/2013	3,029	179,145	303,470	0.590	-0.527					
4/12/2013	780	23,757	303,470	0.078	-2.547					
4/13/2013	76	5,301	303,470	0.017	-4.047					
4/14/2013	89	2,414	303,470	0.008	-4.834					
4/15/2013	716	19,616	303,470	0.065	-2.739					
4/16/2013	1,295	60,173	303,470	0.198	-1.618					
4/17/2013	148	20,800	303,470	0.069	-2.680					
4/18/2013	6,373	362,142	303,470	1.193	0.177					
4/19/2013	1,160	102,598	303,470	0.338	-1.084					
4/20/2013	77	5,077	303,470	0.017	-4.091					
4/21/2013	47	4,365	303,470	0.014	-4.242					
4/22/2013	29	8,936	303,470	0.029	-3.525					
4/23/2013	220	16,808	303,470	0.055	-2.893					
4/24/2013	429	82,748	303,470	0.273	-1.299					
4/25/2013	228	9,643	303,470	0.032	-3.449					
4/26/2013	48	4,284	303,470	0.014	-4.260					
4/27/2013	177	26,024	303,470	0.086	-2.456					
4/28/2013	5,050	71,836	303,470	0.237	-1.441					
4/29/2013	111	6,225	303,470	0.021	-3.887					
4/30/2013	24	1,610	303,470	0.005	-5.239					
5/1/2013	123	13,852	303,470	0.046	-3.087					
5/2/2013	14	812	303,470	0.003	-5.924					
5/3/2013	38	2,702	303,470	0.009	-4.721					
5/4/2013	131	22,458	303,470	0.074	-2.604					
5/5/2013	4	348	303,470	0.001	-6.771					
5/6/2013	136	9,238	303,470	0.030	-3.492					
5/7/2013	3	235	303,470	0.001	-7.163					
5/8/2013	86	6,785	303,470	0.022	-3.801					
5/9/2013	85	5,497	303,470	0.018	-4.011					
5/10/2013	214	28,042	303,470	0.092	-2.382					
5/11/2013	111	10,709	303,470	0.035	-3.344					
5/12/2013	77	6,183	303,470	0.020	-3.893					
5/13/2013	30	1,741	303,470	0.006	-5.161					
5/14/2013	776	58,559	303,470	0.193	-1.645					
5/15/2013	60	5,411	303,470	0.018	-4.027					
5/16/2013	284	18,697	303,470	0.062	-2.787					
5/17/2013	208	19,590	303,470	0.065	-2.740					
5/18/2013	173	11,117	303,470	0.037	-3.307					
5/19/2013	71	6,548	303,470	0.022	-3.836					
5/20/2013	177	15,716	303,470	0.052	-2.961					
5/21/2013	166	28,800	303,470	0.095	-2.355					
5/22/2013	1,051	47,287	303,470	0.156	-1.859					
5/23/2013	199	11,296	303,470	0.037	-3.291					
5/24/2013	111	11,197	303,470	0.037	-3.300					
5/25/2013	1,119	115,197	303,470	0.380	-0.969					
5/26/2013	112	7,072	303,470	0.023	-3.759					
5/27/2013	234	21,652	303,470	0.071	-2.640					
5/28/2013	897	46,798	303,470	0.154	-1.869					
5/29/2013	251	21,502	303,470	0.071	-2.647					
5/30/2013	503	37,786	303,470	0.125	-2.083					
5/31/2013	1,039	121,747	303,470	0.401	-0.913					
6/1/2013	359	42,609	303,470	0.140	-1.963					
6/2/2013	113	5,029	303,470	0.017	-4.100					
6/3/2013	2,423	116,190	303,470	0.383	-0.960					
6/4/2013	134	6,638	303,470	0.022	-3.822					
6/5/2013	127	7,053	303,470	0.023	-3.762					
6/6/2013	541	29,721	303,470	0.098	-2.323					
6/7/2013	30	1,688	303,470	0.006	-5.192					
6/8/2013	208	15,331	303,470	0.051	-2.985					
6/9/2013	254	25,112	303,470	0.083	-2.492					
6/10/2013	237	30,357	303,470	0.100	-2.302					
6/11/2013	166	9,258	303,470	0.031	-3.490					
6/12/2013	464	151,974	303,470	0.501	-0.692					
6/13/2013	3,821	1,152,669	303,470	3.798	1.335					
6/14/2013	95	10,574	303,470	0.035	-3.357					
6/15/2013	121	14,190	303,470	0.047	-3.063					
6/16/2013	1,145	188,905	303,470	0.622	-0.474					
6/17/2013	174	16,351	303,470	0.054	-2.921					
6/18/2013	67	4,552	303,470	0.015	-4.200					
6/19/2013	122	7,839	303,470	0.026	-3.656					
6/20/2013	58	6,028	303,470	0.020	-3.919					
6/21/2013	338	14,137	303,470	0.047	-3.066					
6/22/2013	5,508	635,208	303,470	2.093	0.739					
6/23/2013	1,655	227,043	303,470	0.748	-0.290					

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
6/24/2013	534	49,926	303,470	0.165	-1.805					
6/25/2013	2,904	232,845	303,470	0.767	-0.265					
6/26/2013	3,079	72,281	303,470	0.238	-1.435					
6/27/2013	7,670	1,678,848	303,470	5.532	1.711					
6/28/2013	310	43,209	303,470	0.142	-1.949					
6/29/2013	728	65,653	303,470	0.216	-1.531					
6/30/2013	83	7,532	303,470	0.025	-3.696					
7/1/2013	1,226	65,810	303,470	0.217	-1.529					
7/2/2013	166	18,697	303,470	0.062	-2.787					
7/3/2013	23	1,139	303,470	0.004	-5.585					
7/4/2013	72	6,233	303,470	0.021	-3.885					
7/5/2013	43	3,713	303,470	0.012	-4.403					
7/6/2013	258	28,284	303,470	0.093	-2.373					
7/7/2013	4,765	637,841	303,470	2.102	0.743					
7/8/2013	1,494	95,373	303,470	0.314	-1.157					
7/9/2013	1,745	177,443	303,470	0.585	-0.537					
7/10/2013	23,655	17,419,265	303,470	57.400	4.050					
7/11/2013	619	96,879	303,470	0.319	-1.142					
7/12/2013	466	135,398	303,470	0.446	-0.807					
7/13/2013	79	10,463	303,470	0.034	-3.367					
7/14/2013	264	50,930	303,470	0.168	-1.785					
7/15/2013	2,594	174,666	303,470	0.576	-0.552					
7/16/2013	493	77,097	303,470	0.254	-1.370					
7/17/2013	355	28,371	303,470	0.093	-2.370					
7/18/2013	679	40,190	303,470	0.132	-2.022					
7/19/2013	1,284	45,408	303,470	0.150	-1.900					
7/20/2013	7,499	944,817	303,470	3.113	1.136					
7/21/2013	329	60,683	303,470	0.200	-1.610					
7/22/2013	576	45,705	303,470	0.151	-1.893					
7/23/2013	1,013	132,467	303,470	0.437	-0.829					
7/24/2013	128	14,211	303,470	0.047	-3.061					
7/25/2013	60	6,409	303,470	0.021	-3.858					
7/26/2013	69	5,660	303,470	0.019	-3.982					
7/27/2013	3,143	1,124,311	303,470	3.705	1.310					
7/28/2013	95	35,801	303,470	0.118	-2.137					
7/29/2013	98	10,715	303,470	0.035	-3.344					
7/30/2013	990	63,683	303,470	0.210	-1.561					
7/31/2013	6	630	303,470	0.002	-6.177					
8/1/2013	45	5,768	303,470	0.019	-3.963					
8/2/2013	14	2,236	303,470	0.007	-4.911					
8/3/2013	2,941	304,412	303,470	1.003	0.003					
8/4/2013	2,968	215,903	303,470	0.711	-0.340					
8/5/2013	82	3,545	303,470	0.012	-4.450					
8/6/2013	15	1,048	303,470	0.003	-5.668					
8/7/2013	510	56,899	303,470	0.187	-1.674					
8/8/2013	65	7,215	303,470	0.024	-3.739					
8/9/2013	25	1,194	303,470	0.004	-5.538					
8/10/2013	53	5,742	303,470	0.019	-3.967					
8/11/2013	77	8,132	303,470	0.027	-3.619					
8/12/2013	88	5,498	303,470	0.018	-4.011					
8/13/2013	37	3,703	303,470	0.012	-4.406					
8/14/2013	14	791	303,470	0.003	-5.950					
8/15/2013	7	583	303,470	0.002	-6.255					
8/16/2013	20	1,741	303,470	0.006	-5.161					
8/17/2013	31	2,067	303,470	0.007	-4.989					
8/18/2013	31	2,878	303,470	0.009	-4.658					
8/19/2013	76	12,388	303,470	0.041	-3.199					
8/20/2013	23	1,080	303,470	0.004	-5.638					
8/21/2013	131	8,770	303,470	0.029	-3.544					
8/22/2013	96	6,420	303,470	0.021	-3.856					
8/23/2013	74	4,055	303,470	0.013	-4.315					
8/24/2013	185	28,332	303,470	0.093	-2.371					
8/25/2013	55	3,225	303,470	0.011	-4.544					
8/26/2013	49	4,216	303,470	0.014	-4.276					
8/27/2013	181	18,123	303,470	0.060	-2.818					
8/28/2013	1,448	81,988	303,470	0.270	-1.309					
8/29/2013	217	12,575	303,470	0.041	-3.184					
8/30/2013	126	19,511	303,470	0.064	-2.744					
8/31/2013	6,481	1,085,186	303,470	3.576	1.274					
9/1/2013	139	11,557	303,470	0.038	-3.268					
9/2/2013	14	1,334	303,470	0.004	-5.427					
9/3/2013	18	1,625	303,470	0.005	-5.230					
9/4/2013	35	2,045	303,470	0.007	-5.000					
9/5/2013	41	2,511	303,470	0.008	-4.795					
9/6/2013	500	32,246	303,470	0.106	-2.242					
9/7/2013	99	8,411	303,470	0.028	-3.586					
9/8/2013	47	2,958	303,470	0.010	-4.631					
9/9/2013	127	7,204	303,470	0.024	-3.741					
9/10/2013	723	12,940	303,470	0.043	-3.155					
9/11/2013	134	14,962	303,470	0.049	-3.010					
9/12/2013	170	14,388	303,470	0.047	-3.049					
9/13/2013	16	761	303,470	0.003	-5.988					
9/14/2013	211	19,023	303,470	0.063	-2.770					
9/15/2013	8,227	505,025	303,470	1.664	0.509					
9/16/2013	128	10,422	303,470	0.034	-3.371					
9/17/2013	104	8,016	303,470	0.026	-3.634					
9/18/2013	52	4,483	303,470	0.015	-4.215					
9/19/2013	411	7,782	303,470	0.026	-3.663					
9/20/2013	55	3,731	303,470	0.012	-4.399					
9/21/2013	1,889	136,041	303,470	0.448	-0.802					
9/22/2013	108	12,205	303,470	0.040	-3.213					
9/23/2013	2,123	86,575	303,470	0.285	-1.254					
9/24/2013	101	10,361	303,470	0.034	-3.377					
9/25/2013	619	4,096	303,470	0.013	-4.305					
9/26/2013	32	2,051	303,470	0.007	-4.997					
9/27/2013	12	711	303,470	0.002	-6.056					
9/28/2013	50	18,150	303,470	0.060	-2.817					
9/29/2013	148	10,652	303,470	0.035	-3.350					
9/30/2013	25	2,279	303,470	0.008	-4.892					
10/1/2013	116	11,162	303,470	0.037	-3.303					
10/2/2013	124	9,608	303,470	0.032	-3.453					
10/3/2013	179	18,157	303,470	0.060	-2.816					
10/4/2013	418	59,464	303,470	0.196	-1.630					
10/5/2013	228	45,716	303,470	0.151	-1.893					
10/6/2013	368	51,457	303,470	0.170	-1.775					
10/7/2013	281	18,301	303,470	0.060	-2.808					
10/8/2013	20	2,699	303,470	0.009	-4.722					
10/9/2013	577	60,057	303,470	0.198	-1.620					

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
10/10/2013	330	35,520	303,470	0.117	-2.145					
10/11/2013	179	11,276	303,470	0.037	-3.293					
10/12/2013	74	8,166	303,470	0.027	-3.615					
10/13/2013	83	7,922	303,470	0.026	-3.646					
10/14/2013	1,679	69,568	303,470	0.229	-1.473					
10/15/2013	117	8,931	303,470	0.029	-3.526					
10/16/2013	470	29,723	303,470	0.098	-2.323					
10/17/2013	52	3,015	303,470	0.010	-4.612					
10/18/2013	33	1,558	303,470	0.005	-5.272					
10/19/2013	85	6,257	303,470	0.021	-3.882					
10/20/2013	57	6,972	303,470	0.023	-3.773					
10/21/2013	122	6,778	303,470	0.022	-3.802					
10/22/2013	141	3,643	303,470	0.012	-4.422					
10/23/2013	1,459	38,401	303,470	0.127	-2.067					
10/24/2013	267	24,051	303,470	0.079	-2.535					
10/25/2013	184	11,166	303,470	0.037	-3.302					
10/26/2013	264	20,811	303,470	0.069	-2.680					
10/27/2013	34	2,172	303,470	0.007	-4.940					
10/28/2013	29	1,641	303,470	0.005	-5.220					
10/29/2013	388	32,118	303,470	0.106	-2.246					
10/30/2013	132	13,693	303,470	0.045	-3.098					
10/31/2013	2,245	365,804	303,470	1.205	0.187					
11/1/2013	2,722	197,445	303,470	0.651	-0.430					
11/2/2013	49	3,152	303,470	0.010	-4.567					
11/3/2013	128	10,883	303,470	0.036	-3.328					
11/4/2013	182	20,545	303,470	0.068	-2.693					
11/5/2013	105	8,645	303,470	0.028	-3.558					
11/6/2013	973	79,088	303,470	0.261	-1.345					
11/7/2013	107	6,871	303,470	0.023	-3.788					
11/8/2013	122	5,019	303,470	0.017	-4.102					
11/9/2013	112	11,659	303,470	0.038	-3.259					
11/10/2013	97	11,020	303,470	0.036	-3.316					
11/11/2013	300	34,012	303,470	0.112	-2.189					
11/12/2013	101	6,653	303,470	0.022	-3.820					
11/13/2013	90	3,761	303,470	0.012	-4.391					
11/14/2013	58	5,252	303,470	0.017	-4.057					
11/15/2013	97	7,263	303,470	0.024	-3.732					
11/16/2013	83	6,113	303,470	0.020	-3.905					
11/17/2013	30,708	15,475,221	303,470	50.994	3.932					
11/18/2013	6,473	3,195,095	303,470	10.529	2.354					
11/19/2013	82	28,129	303,470	0.093	-2.378					
11/20/2013	79	9,732	303,470	0.032	-3.440					
11/21/2013	116	13,481	303,470	0.044	-3.114					
11/22/2013	87	7,058	303,470	0.023	-3.761					
11/23/2013	309	30,231	303,470	0.100	-2.306					
11/24/2013	13	940	303,470	0.003	-5.777					
11/25/2013	1	40	303,470	0.000	-8.934					
11/26/2013	278	13,893	303,470	0.046	-3.084					
11/27/2013	70	9,233	303,470	0.030	-3.492					
11/28/2013	36	1,739	303,470	0.006	-5.162					
11/29/2013	49	3,247	303,470	0.011	-4.538					
11/30/2013	176	13,487	303,470	0.044	-3.114					
12/1/2013	118	8,567	303,470	0.028	-3.567					
12/2/2013	17	424	303,470	0.001	-6.573					
12/3/2013	794	44,590	303,470	0.147	-1.918					
12/4/2013	83	11,146	303,470	0.037	-3.304					
12/5/2013	3	223	303,470	0.001	-7.216					
12/6/2013	830	127,297	303,470	0.419	-0.869					
12/7/2013	56	4,214	303,470	0.014	-4.277					
12/8/2013	26	1,186	303,470	0.004	-5.545					
12/9/2013	1,343	73,837	303,470	0.243	-1.413					
12/10/2013	3,299	182,825	303,470	0.602	-0.507					
12/11/2013	3	267	303,470	0.001	-7.036					
12/12/2013	-	-	303,470							
12/13/2013	5	1,085	303,470	0.004	-5.634					
12/14/2013	36	2,489	303,470	0.008	-4.803					
12/15/2013	28	2,100	303,470	0.007	-4.973					
12/16/2013	27	2,313	303,470	0.008	-4.877					
12/17/2013	12	816	303,470	0.003	-5.919					
12/18/2013	-	-	303,470							
12/19/2013	521	67,005	303,470	0.221	-1.511					
12/20/2013	3,217	471,497	303,470	1.554	0.441					
12/21/2013	1,991	159,184	303,470	0.525	-0.645					
12/22/2013	1,456	155,528	303,470	0.512	-0.668					
12/23/2013	18	1,812	303,470	0.006	-5.121					
12/24/2013	252	20,343	303,470	0.067	-2.703					
12/25/2013	38	5,314	303,470	0.018	-4.045					
12/26/2013	11	634	303,470	0.002	-6.171					
12/27/2013	166	11,378	303,470	0.037	-3.284					
12/28/2013	12	1,164	303,470	0.004	-5.563					
12/29/2013	108	22,002	303,470	0.073	-2.624					
12/30/2013	60	4,571	303,470	0.015	-4.196					
12/31/2013	1	110	303,470	0.000	-7.923					
1/1/2014	60	5,320	301,986	0.018	-4.039					
1/2/2014	31	3,148	301,986	0.010	-4.564					
1/3/2014	24	2,211	301,986	0.007	-4.917					
1/4/2014	21	1,415	301,986	0.005	-5.363					
1/5/2014	18	2,353	301,986	0.008	-4.855					
1/6/2014	534	75,546	301,986	0.250	-1.386					
1/7/2014	255	15,185	301,986	0.050	-2.990					
1/8/2014	13	1,939	301,986	0.006	-5.048					
1/9/2014	9,531	1,610,927	301,986	5.334	1.674					
1/10/2014	57	7,152	301,986	0.024	-3.743					
1/11/2014	67	5,143	301,986	0.017	-4.073					
1/12/2014	20	914	301,986	0.003	-5.800					
1/13/2014	33	3,036	301,986	0.010	-4.600					
1/14/2014	679	67,601	301,986	0.224	-1.497					
1/15/2014	1,299	78,340	301,986	0.259	-1.349					
1/16/2014	14	954	301,986	0.003	-5.757					
1/17/2014	9	694	301,986	0.002	-6.076					
1/18/2014	15	855	301,986	0.003	-5.867					
1/19/2014	21	1,287	301,986	0.004	-5.458					
1/20/2014	81	7,214	301,986	0.024	-3.734					
1/21/2014	88	11,575	301,986	0.038	-3.262					
1/22/2014	20	1,178	301,986	0.004	-5.547					
1/23/2014	124	17,696	301,986	0.059	-2.837					
1/24/2014	323	23,305	301,986	0.077	-2.562					
1/25/2014	4,010	233,323	301,986	0.773	-0.258					

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
1/26/2014	204	15,406	301,986	0.051	-2.976					
1/27/2014	83	8,381	301,986	0.028	-3.584					
1/28/2014	65	5,752	301,986	0.019	-3.961					
1/29/2014	30	4,175	301,986	0.014	-4.281					
1/30/2014	19	989	301,986	0.003	-5.721					
1/31/2014	45	6,582	301,986	0.022	-3.826					
2/1/2014	52	9,286	301,986	0.031	-3.482					
2/2/2014	194	32,760	301,986	0.108	-2.221					
2/3/2014	25	773	301,986	0.003	-5.968					
2/4/2014	13	1,378	301,986	0.005	-5.390					
2/5/2014	7	885	301,986	0.003	-5.833					
2/6/2014	155	11,641	301,986	0.039	-3.256					
2/7/2014	4	438	301,986	0.001	-6.536					
2/8/2014	27	4,390	301,986	0.015	-4.231					
2/9/2014	1	86	301,986	0.000	-8.164					
2/10/2014	17	1,401	301,986	0.005	-5.373					
2/11/2014	1,683	270,491	301,986	0.896	-0.110					
2/12/2014	38	3,214	301,986	0.011	-4.543					
2/13/2014	27	1,094	301,986	0.004	-5.621					
2/14/2014	227	26,744	301,986	0.089	-2.424					
2/15/2014	27	5,995	301,986	0.020	-3.919					
2/16/2014	31	6,616	301,986	0.022	-3.821					
2/17/2014	235	14,926	301,986	0.049	-3.007					
2/18/2014	59	5,641	301,986	0.019	-3.980					
2/19/2014	423	32,437	301,986	0.107	-2.231					
2/20/2014	2,713	295,816	301,986	0.980	-0.021					
2/21/2014	4,080	206,545	301,986	0.684	-0.380					
2/22/2014	5	510	301,986	0.002	-6.384					
2/23/2014	26	2,245	301,986	0.007	-4.902					
2/24/2014	33	1,891	301,986	0.006	-5.073					
2/25/2014	161	20,212	301,986	0.067	-2.704					
2/26/2014	71	4,554	301,986	0.015	-4.194					
2/27/2014	312	16,528	301,986	0.055	-2.905					
2/28/2014	7	598	301,986	0.002	-6.225					
3/1/2014	68	7,499	301,986	0.025	-3.696					
3/2/2014	7	614	301,986	0.002	-6.198					
3/3/2014	12	1,897	301,986	0.006	-5.070					
3/4/2014	-	-	301,986							
3/5/2014	254	6,350	301,986	0.021	-3.862					
3/6/2014	13	1,010	301,986	0.003	-5.700					
3/7/2014	15	2,094	301,986	0.007	-4.971					
3/8/2014	2,306	311,394	301,986	1.031	0.031					
3/9/2014	4	570	301,986	0.002	-6.272					
3/10/2014	497	40,939	301,986	0.136	-1.998					
3/11/2014	47	3,846	301,986	0.013	-4.363					
3/12/2014	1,888	201,196	301,986	0.666	-0.406					
3/13/2014	169	29,779	301,986	0.099	-2.317					
3/14/2014	24	1,987	301,986	0.007	-5.024					
3/15/2014	94	6,459	301,986	0.021	-3.845					
3/16/2014	212	22,189	301,986	0.073	-2.611					
3/17/2014	29	1,630	301,986	0.005	-5.222					
3/18/2014	7	483	301,986	0.002	-6.438					
3/19/2014	33	2,112	301,986	0.007	-4.963					
3/20/2014	65	6,110	301,986	0.020	-3.900					
3/21/2014	1,629	229,928	301,986	0.761	-0.273					
3/22/2014	71	18,347	301,986	0.061	-2.801					
3/23/2014	26	986	301,986	0.003	-5.724					
3/24/2014	319	54,431	301,986	0.180	-1.713					
3/25/2014	9	6,456	301,986	0.021	-3.845					
3/26/2014	219	19,557	301,986	0.065	-2.737					
3/27/2014	70	1,966	301,986	0.007	-5.034					
3/28/2014	503	279,835	301,986	0.927	-0.076					
3/29/2014	39	2,528	301,986	0.008	-4.783					
3/30/2014	1,456	70,420	301,986	0.233	-1.456					
3/31/2014	2	138	301,986	0.000	-7.691					
4/1/2014	495	57,152	301,986	0.189	-1.665					
4/2/2014	1,180	111,127	301,986	0.368	-1.000					
4/3/2014	1,960	173,825	301,986	0.576	-0.552					
4/4/2014	176	25,156	301,986	0.083	-2.485					
4/5/2014	133	13,702	301,986	0.045	-3.093					
4/6/2014	34	1,812	301,986	0.006	-5.116					
4/7/2014	9	552	301,986	0.002	-6.305					
4/8/2014	203	24,573	301,986	0.081	-2.509					
4/9/2014	-	-	301,986							
4/10/2014	333	36,079	301,986	0.119	-2.125					
4/11/2014	238	23,726	301,986	0.079	-2.544					
4/12/2014	45	3,504	301,986	0.012	-4.456					
4/13/2014	562	73,984	301,986	0.245	-1.407					
4/14/2014	4,673	456,978	301,986	1.513	0.414					
4/15/2014	15	1,350	301,986	0.004	-5.410					
4/16/2014	686	76,933	301,986	0.255	-1.367					
4/17/2014	160	11,821	301,986	0.039	-3.241					
4/18/2014	2,823	169,191	301,986	0.560	-0.579					
4/19/2014	445	23,632	301,986	0.078	-2.548					
4/20/2014	4	282	301,986	0.001	-6.976					
4/21/2014	67	3,764	301,986	0.012	-4.385					
4/22/2014	81	8,221	301,986	0.027	-3.604					
4/23/2014	28	1,728	301,986	0.006	-5.163					
4/24/2014	69	5,285	301,986	0.018	-4.046					
4/25/2014	90	11,748	301,986	0.039	-3.247					
4/26/2014	43	5,463	301,986	0.018	-4.012					
4/27/2014	71	6,558	301,986	0.022	-3.830					
4/28/2014	1,328	101,348	301,986	0.336	-1.092					
4/29/2014	1,815	154,652	301,986	0.512	-0.669					
4/30/2014	208	20,363	301,986	0.067	-2.697					
5/1/2014	11	1,085	301,986	0.004	-5.629					
5/2/2014	24	3,455	301,986	0.011	-4.471					
5/3/2014	291	44,873	301,986	0.149	-1.907					
5/4/2014	18	1,278	301,986	0.004	-5.465					
5/5/2014	50	5,601	301,986	0.019	-3.987					
5/6/2014	597	44,650	301,986	0.148	-1.912					
5/7/2014	3,375	147,372	301,986	0.488	-0.717					
5/8/2014	9	833	301,986	0.003	-5.893					
5/9/2014	145	14,288	301,986	0.047	-3.051					
5/10/2014	571	58,872	301,986	0.195	-1.635					
5/11/2014	66	5,760	301,986	0.019	-3.959					
5/12/2014	1,962	156,608	301,986	0.519	-0.657					
5/13/2014	1,981	370,854	301,986	1.228	0.205					

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
5/14/2014	2,237	241,503	301,986	0.800	-0.223					
5/15/2014	2,037	197,666	301,986	0.655	-0.424					
5/16/2014	18	1,216	301,986	0.004	-5.515					
5/17/2014	79	9,500	301,986	0.031	-3.459					
5/18/2014	455	11,214	301,986	0.037	-3.293					
5/19/2014	1,016	35,700	301,986	0.118	-2.135					
5/20/2014	114	11,076	301,986	0.037	-3.306					
5/21/2014	592	45,922	301,986	0.152	-1.883					
5/22/2014	339	16,870	301,986	0.056	-2.885					
5/23/2014	120	10,471	301,986	0.035	-3.362					
5/24/2014	904	81,861	301,986	0.271	-1.305					
5/25/2014	180	10,499	301,986	0.035	-3.359					
5/26/2014	45	3,523	301,986	0.012	-4.451					
5/27/2014	144	18,123	301,986	0.060	-2.813					
5/28/2014	174	17,550	301,986	0.058	-2.845					
5/29/2014	32	2,446	301,986	0.008	-4.816					
5/30/2014	27	1,277	301,986	0.004	-5.466					
5/31/2014	8	445	301,986	0.001	-6.520					
6/1/2014	203	16,421	301,986	0.054	-2.912					
6/2/2014	278	43,446	301,986	0.144	-1.939					
6/3/2014	739	83,072	301,986	0.275	-1.291					
6/4/2014	1,014	64,246	301,986	0.213	-1.548					
6/5/2014	191	16,440	301,986	0.054	-2.911					
6/6/2014	191	24,098	301,986	0.080	-2.528					
6/7/2014	18	1,697	301,986	0.006	-5.182					
6/8/2014	918	67,020	301,986	0.222	-1.505					
6/9/2014	223	17,848	301,986	0.059	-2.828					
6/10/2014	99	9,565	301,986	0.032	-3.452					
6/11/2014	3,850	195,525	301,986	0.647	-0.435					
6/12/2014	51	4,410	301,986	0.015	-4.227					
6/13/2014	98	6,189	301,986	0.020	-3.888					
6/14/2014	1,447	155,153	301,986	0.514	-0.666					
6/15/2014	266	12,548	301,986	0.042	-3.181					
6/16/2014	158	21,825	301,986	0.072	-2.627					
6/17/2014	461	36,972	301,986	0.122	-2.100					
6/18/2014	3,782	336,179	301,986	1.113	0.107					
6/19/2014	290	55,973	301,986	0.185	-1.686					
6/20/2014	168	14,893	301,986	0.049	-3.009					
6/21/2014	770	36,826	301,986	0.122	-2.104					
6/22/2014	342	16,625	301,986	0.055	-2.899					
6/23/2014	16,866	1,595,092	301,986	5.282	1.664					
6/24/2014	3,851	282,352	301,986	0.935	-0.067					
6/25/2014	1,250	116,038	301,986	0.384	-0.956					
6/26/2014	420	30,698	301,986	0.102	-2.286					
6/27/2014	136	13,213	301,986	0.044	-3.129					
6/28/2014	1,471	178,399	301,986	0.591	-0.526					
6/29/2014	29	4,658	301,986	0.015	-4.172					
6/30/2014	270	22,129	301,986	0.073	-2.613					
7/1/2014	285	19,782	301,986	0.066	-2.726					
7/2/2014	171	15,811	301,986	0.052	-2.950					
7/3/2014	73	4,645	301,986	0.015	-4.175					
7/4/2014	17	3,281	301,986	0.011	-4.522					
7/5/2014	92	7,307	301,986	0.024	-3.722					
7/6/2014	246	18,506	301,986	0.061	-2.792					
7/7/2014	77	10,624	301,986	0.035	-3.347					
7/8/2014	3,124	202,828	301,986	0.672	-0.398					
7/9/2014	485	46,246	301,986	0.153	-1.876					
7/10/2014	28	2,367	301,986	0.008	-4.849					
7/11/2014	51	4,482	301,986	0.015	-4.210					
7/12/2014	82	8,112	301,986	0.027	-3.617					
7/13/2014	163	17,727	301,986	0.059	-2.835					
7/14/2014	9	1,040	301,986	0.003	-5.671					
7/15/2014	208	15,682	301,986	0.052	-2.958					
7/16/2014	10	785	301,986	0.003	-5.952					
7/17/2014	133	6,024	301,986	0.020	-3.915					
7/18/2014	1,298	320,545	301,986	1.061	0.060					
7/19/2014	231	18,534	301,986	0.061	-2.791					
7/20/2014	70	9,690	301,986	0.032	-3.439					
7/21/2014	69	20,788	301,986	0.069	-2.676					
7/22/2014	8	704	301,986	0.002	-6.061					
7/23/2014	2,263	231,625	301,986	0.767	-0.265					
7/24/2014	26	2,677	301,986	0.009	-4.726					
7/25/2014	30	3,371	301,986	0.011	-4.495					
7/26/2014	490	43,252	301,986	0.143	-1.943					
7/27/2014	216	27,609	301,986	0.091	-2.392					
7/28/2014	19	987	301,986	0.003	-5.723					
7/29/2014	403	44,827	301,986	0.148	-1.908					
7/30/2014	43	3,552	301,986	0.012	-4.443					
7/31/2014	119	11,650	301,986	0.039	-3.255					
8/1/2014	230	20,399	301,986	0.068	-2.695					
8/2/2014	1,373	152,158	301,986	0.504	-0.685					
8/3/2014	82	20,988	301,986	0.069	-2.666					
8/4/2014	124	9,861	301,986	0.033	-3.422					
8/5/2014	58	8,161	301,986	0.027	-3.611					
8/6/2014	83	10,278	301,986	0.034	-3.380					
8/7/2014	61	5,160	301,986	0.017	-4.069					
8/8/2014	263	23,536	301,986	0.078	-2.552					
8/9/2014	855	61,534	301,986	0.204	-1.591					
8/10/2014	59	4,864	301,986	0.016	-4.129					
8/11/2014	4,681	620,725	301,986	2.055	0.721					
8/12/2014	1,798	92,244	301,986	0.305	-1.186					
8/13/2014	840	107,331	301,986	0.355	-1.034					
8/14/2014	1,815	207,283	301,986	0.686	-0.376					
8/15/2014	74	10,840	301,986	0.036	-3.327					
8/16/2014	85	7,726	301,986	0.026	-3.666					
8/17/2014	677	53,916	301,986	0.179	-1.723					
8/18/2014	132	12,525	301,986	0.041	-3.183					
8/19/2014	2,220	394,585	301,986	1.307	0.267					
8/20/2014	141	13,772	301,986	0.046	-3.088					
8/21/2014	132	9,635	301,986	0.032	-3.445					
8/22/2014	145	14,428	301,986	0.048	-3.041					
8/23/2014	117	15,038	301,986	0.050	-3.000					
8/24/2014	95	10,470	301,986	0.035	-3.362					
8/25/2014	151	16,154	301,986	0.053	-2.928					
8/26/2014	1,792	116,571	301,986	0.386	-0.952					
8/27/2014	24	1,847	301,986	0.006	-5.097					
8/28/2014	48	3,311	301,986	0.011	-4.513					
8/29/2014	9	904	301,986	0.003	-5.811					

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
8/30/2014	51	7,772	301,986	0.026	-3.660					
8/31/2014	125	10,969	301,986	0.036	-3.315					
9/1/2014	73	5,677	301,986	0.019	-3.974					
9/2/2014	272	25,933	301,986	0.086	-2.455					
9/3/2014	301	27,374	301,986	0.091	-2.401					
9/4/2014	596	67,946	301,986	0.225	-1.492					
9/5/2014	3,039	552,905	301,986	1.831	0.605					
9/6/2014	504	72,382	301,986	0.240	-1.428					
9/7/2014	133	32,076	301,986	0.106	-2.242					
9/8/2014	56	7,280	301,986	0.024	-3.725					
9/9/2014	7	649	301,986	0.002	-6.143					
9/10/2014	2,739	202,009	301,986	0.669	-0.402					
9/11/2014	189	25,370	301,986	0.084	-2.477					
9/12/2014	186	54,547	301,986	0.181	-1.711					
9/13/2014	137	21,983	301,986	0.073	-2.620					
9/14/2014	47	4,666	301,986	0.015	-4.170					
9/15/2014	32	1,892	301,986	0.006	-5.073					
9/16/2014	137	11,743	301,986	0.039	-3.247					
9/17/2014	724	154,945	301,986	0.513	-0.667					
9/18/2014	52	9,513	301,986	0.032	-3.458					
9/19/2014	1,225	33,121	301,986	0.110	-2.210					
9/20/2014	53	16,226	301,986	0.054	-2.924					
9/21/2014	1,450	417,923	301,986	1.384	0.325					
9/22/2014	57	4,995	301,986	0.017	-4.102					
9/23/2014	-	-	301,986							
9/24/2014	15	1,121	301,986	0.004	-5.596					
9/25/2014	18	1,306	301,986	0.004	-5.443					
9/26/2014	102	11,257	301,986	0.037	-3.289					
9/27/2014	59	4,520	301,986	0.015	-4.202					
9/28/2014	111	15,288	301,986	0.051	-2.983					
9/29/2014	348	18,592	301,986	0.062	-2.788					
9/30/2014	347	38,700	301,986	0.128	-2.055					
10/1/2014	145	10,677	301,986	0.035	-3.342					
10/2/2014	96	15,920	301,986	0.053	-2.943					
10/3/2014	454	46,125	301,986	0.153	-1.879					
10/4/2014	156	14,226	301,986	0.047	-3.055					
10/5/2014	192	21,769	301,986	0.072	-2.630					
10/6/2014	44	6,313	301,986	0.021	-3.868					
10/7/2014	20	2,714	301,986	0.009	-4.712					
10/8/2014	1,471	41,934	301,986	0.139	-1.974					
10/9/2014	44	3,499	301,986	0.012	-4.458					
10/10/2014	66	5,729	301,986	0.019	-3.965					
10/11/2014	24	2,064	301,986	0.007	-4.986					
10/12/2014	38	3,210	301,986	0.011	-4.544					
10/13/2014	136	10,155	301,986	0.034	-3.392					
10/14/2014	801	106,836	301,986	0.354	-1.039					
10/15/2014	91	10,480	301,986	0.035	-3.361					
10/16/2014	68	5,220	301,986	0.017	-4.058					
10/17/2014	325	25,871	301,986	0.086	-2.457					
10/18/2014	665	30,803	301,986	0.102	-2.283					
10/19/2014	112	14,438	301,986	0.048	-3.041					
10/20/2014	108	8,619	301,986	0.029	-3.556					
10/21/2014	65	6,644	301,986	0.022	-3.817					
10/22/2014	141	12,821	301,986	0.042	-3.159					
10/23/2014	161	10,979	301,986	0.036	-3.314					
10/24/2014	87	6,421	301,986	0.021	-3.851					
10/25/2014	90	12,600	301,986	0.042	-3.177					
10/26/2014	46	4,314	301,986	0.014	-4.249					
10/27/2014	9,007	1,238,293	301,986	4.100	1.411					
10/28/2014	2,239	44,819	301,986	0.148	-1.908					
10/29/2014	26	1,682	301,986	0.006	-5.190					
10/30/2014	51	3,157	301,986	0.010	-4.561					
10/31/2014	460	45,175	301,986	0.150	-1.900					
11/1/2014	335	57,430	301,986	0.190	-1.660					
11/2/2014	36	3,097	301,986	0.010	-4.580					
11/3/2014	2,810	118,790	301,986	0.393	-0.933					
11/4/2014	2,860	204,103	301,986	0.676	-0.392					
11/5/2014	8,616	247,104	301,986	0.818	-0.201					
11/6/2014	163	39,815	301,986	0.132	-2.026					
11/7/2014	121	13,533	301,986	0.045	-3.105					
11/8/2014	2,729	117,445	301,986	0.389	-0.944					
11/9/2014	92	16,295	301,986	0.054	-2.920					
11/10/2014	311	30,102	301,986	0.100	-2.306					
11/11/2014	37	1,919	301,986	0.006	-5.059					
11/12/2014	231	2,184	301,986	0.007	-4.929					
11/13/2014	47	17,101	301,986	0.057	-2.871					
11/14/2014	9	727	301,986	0.002	-6.029					
11/15/2014	648	53,094	301,986	0.176	-1.738					
11/16/2014	72	8,479	301,986	0.028	-3.573					
11/17/2014	2,377	380,706	301,986	1.261	0.232					
11/18/2014	2	186	301,986	0.001	-7.392					
11/19/2014	31	1,219	301,986	0.004	-5.512					
11/20/2014	14	1,615	301,986	0.005	-5.231					
11/21/2014	28	1,681	301,986	0.006	-5.191					
11/22/2014	80	9,202	301,986	0.030	-3.491					
11/23/2014	295	26,717	301,986	0.088	-2.425					
11/24/2014	15,829	3,471,427	301,986	11.495	2.442					
11/25/2014	209	92,055	301,986	0.305	-1.188					
11/26/2014	283	67,631	301,986	0.224	-1.496					
11/27/2014	70	4,554	301,986	0.015	-4.194					
11/28/2014	6,208	10,488,047	301,986	34.730	3.548					
11/29/2014	29	18,077	301,986	0.060	-2.816					
11/30/2014	571	61,236	301,986	0.203	-1.596					
12/1/2014	134	12,307	301,986	0.041	-3.200					
12/2/2014	73	11,378	301,986	0.038	-3.279					
12/3/2014	67	6,599	301,986	0.022	-3.823					
12/4/2014	31	2,800	301,986	0.009	-4.681					
12/5/2014	90	8,726	301,986	0.029	-3.544					
12/6/2014	643	44,715	301,986	0.148	-1.910					
12/7/2014	18	1,060	301,986	0.004	-5.652					
12/8/2014	134	21,446	301,986	0.071	-2.645					
12/9/2014	79	5,088	301,986	0.017	-4.083					
12/10/2014	166	24,743	301,986	0.082	-2.502					
12/11/2014	30	1,978	301,986	0.007	-5.028					
12/12/2014	160	12,387	301,986	0.041	-3.194					
12/13/2014	26	728	301,986	0.002	-6.028					
12/14/2014	2	92	301,986	0.000	-8.096					
12/15/2014	5	455	301,986	0.002	-6.498					

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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
12/16/2014	251	33,874	301,986	0.112	-2.188					
12/17/2014	51	4,853	301,986	0.016	-4.131					
12/18/2014	-	-	301,986							
12/19/2014	35	2,672	301,986	0.009	-4.728					
12/20/2014	71	4,450	301,986	0.015	-4.217					
12/21/2014	10	974	301,986	0.003	-5.737					
12/22/2014	10	1,322	301,986	0.004	-5.431					
12/23/2014	172	21,717	301,986	0.072	-2.632					
12/24/2014	120	8,376	301,986	0.028	-3.585					
12/25/2014	228	18,362	301,986	0.061	-2.800					
12/26/2014	2,315	148,255	301,986	0.491	-0.711					
12/27/2014	9	676	301,986	0.002	-6.102					
12/28/2014	130	5,673	301,986	0.019	-3.975					
12/29/2014	18	2,442	301,986	0.008	-4.818					
12/30/2014	5	294	301,986	0.001	-6.935					
12/31/2014	33	1,056	301,986	0.003	-5.656					
1/1/2015	-	-	301,243							
1/2/2015	13	1,136	301,243	0.004	-5.580	-	-	13	1,136	
1/3/2015	86	13,370	301,243	0.044	-3.115	-	-	86	13,370	
1/4/2015	1,385	157,760	301,243	0.524	-0.647	-	-	1,385	157,760	
1/5/2015	-	-	301,243			-	-			
1/6/2015	1,036	65,750	301,243	0.218	-1.522	-	-	1,036	65,750	
1/7/2015	112	6,909	301,243	0.023	-3.775	-	-	112	6,909	
1/8/2015	66	4,682	301,243	0.016	-4.164	-	-	66	4,682	
1/9/2015	40	2,944	301,243	0.010	-4.628	-	-	40	2,944	
1/10/2015	686	61,260	301,243	0.203	-1.593	-	-	686	61,260	
1/11/2015	1,054	12,188	301,243	0.040	-3.207	1,005	7,035	49	5,153	
1/12/2015	218	16,578	301,243	0.055	-2.900	-	-	218	16,578	
1/13/2015	117	12,330	301,243	0.041	-3.196	-	-	117	12,330	
1/14/2015	124	31,420	301,243	0.104	-2.260	-	-	124	31,420	
1/15/2015	77	9,354	301,243	0.031	-3.472	-	-	77	9,354	
1/16/2015	11	710	301,243	0.002	-6.050	-	-	11	710	
1/17/2015	48	5,522	301,243	0.018	-3.999	-	-	48	5,522	
1/18/2015	-	-	301,243			-	-			
1/19/2015	30	3,230	301,243	0.011	-4.535	-	-	30	3,230	
1/20/2015	1	119	301,243	0.000	-7.837	-	-	1	119	
1/21/2015	54	7,995	301,243	0.027	-3.629	-	-	54	7,995	
1/22/2015	118	8,924	301,243	0.030	-3.519	-	-	118	8,924	
1/23/2015	409	6,519	301,243	0.022	-3.833	-	-	409	6,519	
1/24/2015	-	-	301,243			-	-			
1/25/2015	624	134,906	301,243	0.448	-0.803	-	-	624	134,906	
1/26/2015	3	342	301,243	0.001	-6.781	-	-	3	342	
1/27/2015	2	207	301,243	0.001	-7.283	-	-	2	207	
1/28/2015	55	5,296	301,243	0.018	-4.041	-	-	55	5,296	
1/29/2015	1,053	105,413	301,243	0.350	-1.050	-	-	1,053	105,413	
1/30/2015	40	2,648	301,243	0.009	-4.734	-	-	40	2,648	
1/31/2015	1,135	69,219	301,243	0.230	-1.471	-	-	1,135	69,219	
2/1/2015	14	1,565	301,243	0.005	-5.260	-	-	14	1,565	
2/2/2015	7	1,221	301,243	0.004	-5.508	-	-	7	1,221	
2/3/2015	82	24,784	301,243	0.082	-2.498	-	-	82	24,784	
2/4/2015	111	16,215	301,243	0.054	-2.922	-	-	111	16,215	
2/5/2015	375	34,945	301,243	0.116	-2.154	-	-	375	34,945	
2/6/2015	115	11,978	301,243	0.040	-3.225	-	-	115	11,978	
2/7/2015	654	131,546	301,243	0.437	-0.829	-	-	654	131,546	
2/8/2015	5,787	597,786	301,243	1.984	0.685	-	-	5,787	597,786	
2/9/2015	72	16,260	301,243	0.054	-2.919	-	-	72	16,260	
2/10/2015	12	2,256	301,243	0.007	-4.894	-	-	12	2,256	
2/11/2015	108	7,860	301,243	0.026	-3.646	-	-	108	7,860	
2/12/2015	-	-	301,243			-	-			
2/13/2015	2	78	301,243	0.000	-8.259	-	-	2	78	
2/14/2015	4	294	301,243	0.001	-6.932	-	-	4	294	
2/15/2015	37	3,116	301,243	0.010	-4.571	-	-	37	3,116	
2/16/2015	60	3,690	301,243	0.012	-4.402	-	-	60	3,690	
2/17/2015	58	5,299	301,243	0.018	-4.040	-	-	58	5,299	
2/18/2015	17	1,146	301,243	0.004	-5.572	-	-	17	1,146	
2/19/2015	2	174	301,243	0.001	-7.457	-	-	2	174	
2/20/2015	3	358	301,243	0.001	-6.735	-	-	3	358	
2/21/2015	8	545	301,243	0.002	-6.315	-	-	8	545	
2/22/2015	10	2,005	301,243	0.007	-5.012	-	-	10	2,005	
2/23/2015	3	342	301,243	0.001	-6.781	-	-	3	342	
2/24/2015	6,639	142,134	301,243	0.472	-0.751	5,233	47,097	1,406	95,037	
2/25/2015	51	13,352	301,243	0.044	-3.116	-	-	51	13,352	
2/26/2015	50	3,092	301,243	0.010	-4.579	-	-	50	3,092	
2/27/2015	751	5,499	301,243	0.018	-4.003	-	-	751	5,499	
2/28/2015	1	78	301,243	0.000	-8.259	-	-	1	78	
3/1/2015	19	3,344	301,243	0.011	-4.501	-	-	19	3,344	
3/2/2015	3	261	301,243	0.001	-7.051	-	-	3	261	
3/3/2015	655	16,948	301,243	0.056	-2.878	-	-	655	16,948	
3/4/2015	50	3,556	301,243	0.012	-4.439	-	-	50	3,556	
3/5/2015	94	5,070	301,243	0.017	-4.085	-	-	94	5,070	
3/6/2015	14	1,792	301,243	0.006	-5.125	-	-	14	1,792	
3/7/2015	14	1,205	301,243	0.004	-5.521	-	-	14	1,205	
3/8/2015	7	530	301,243	0.002	-6.343	-	-	7	530	
3/9/2015	59	3,709	301,243	0.012	-4.397	-	-	59	3,709	
3/10/2015	60	23,804	301,243	0.079	-2.538	-	-	60	23,804	
3/11/2015	205	37,236	301,243	0.124	-2.091	-	-	205	37,236	
3/12/2015	1,663	12,248	301,243	0.041	-3.203	-	-	1,663	12,248	
3/13/2015	33	2,479	301,243	0.008	-4.800	-	-	33	2,479	
3/14/2015	1,594	254,817	301,243	0.846	-0.167	-	-	1,594	254,817	
3/15/2015	730	17,280	301,243	0.057	-2.858	-	-	730	17,280	
3/16/2015	5	1,728	301,243	0.006	-5.161	-	-	5	1,728	
3/17/2015	40	7,438	301,243	0.025	-3.701	-	-	40	7,438	
3/18/2015	64	14,033	301,243	0.047	-3.067	-	-	64	14,033	
3/19/2015	3	378	301,243	0.001	-6.681	-	-	3	378	
3/20/2015	11	526	301,243	0.002	-6.350	-	-	11	526	
3/21/2015	-	-	301,243			-	-			
3/22/2015	11	2,815	301,243	0.009	-4.673	-	-	11	2,815	
3/23/2015	2	46	301,243	0.000	-8.787	-	-	2	46	
3/24/2015	51	7,209	301,243	0.024	-3.733	-	-	51	7,209	
3/25/2015	78	5,815	301,243	0.019	-3.947	-	-	78	5,815	
3/26/2015	1,172	88,829	301,243	0.295	-1.221	-	-	1,172	88,829	
3/27/2015	4	392	301,243	0.001	-6.644	-	-	4	392	
3/28/2015	157	10,913	301,243	0.036	-3.318	-	-	157	10,913	
3/29/2015	1,003	36,490	301,243	0.121	-2.111	-	-	1,003	36,490	
3/30/2015	2,334	195,902	301,243	0.650	-0.430	-	-	2,334	195,902	
3/31/2015	730	17,627	301,243	0.059	-2.838	-	-	730	17,627	
4/1/2015	18	1,362	301,243	0.005	-5.399	-	-	18	1,362	
4/2/2015	50	6,734	301,243	0.022	-3.801	-	-	50	6,734	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
4/3/2015	43	2,288	301,243	0.008	-4.880	-	-	43	2,288	
4/4/2015	9	431	301,243	0.001	-6.550	-	-	9	431	
4/5/2015	2,051	164,753	301,243	0.547	-0.603	-	-	2,051	164,753	
4/6/2015	128	12,154	301,243	0.040	-3.210	-	-	128	12,154	
4/7/2015	1,363	142,456	301,243	0.473	-0.749	-	-	1,363	142,456	
4/8/2015	79	7,888	301,243	0.026	-3.643	-	-	79	7,888	
4/9/2015	2,318	178,085	301,243	0.591	-0.526	-	-	2,318	178,085	
4/10/2015	595	124,213	301,243	0.412	-0.886	-	-	595	124,213	
4/11/2015	56	3,270	301,243	0.011	-4.523	-	-	56	3,270	
4/12/2015	29	2,977	301,243	0.010	-4.617	-	-	29	2,977	
4/13/2015	2,123	256,837	301,243	0.853	-0.159	-	-	2,123	256,837	
4/14/2015	41	2,029	301,243	0.007	-5.000	-	-	41	2,029	
4/15/2015	307	26,691	301,243	0.089	-2.424	-	-	307	26,691	
4/16/2015	36	2,387	301,243	0.008	-4.838	-	-	36	2,387	
4/17/2015	9,180	793,320	301,243	2.633	0.968	6,998	727,602	2,182	65,718	
4/18/2015	1,051	89,631	301,243	0.298	-1.212	-	-	1,051	89,631	
4/19/2015	97	11,923	301,243	0.040	-3.229	-	-	97	11,923	
4/20/2015	860	131,097	301,243	0.435	-0.832	-	-	860	131,097	
4/21/2015	1,093	97,540	301,243	0.324	-1.128	-	-	1,093	97,540	
4/22/2015	474	15,731	301,243	0.052	-2.952	-	-	474	15,731	
4/23/2015	121	13,552	301,243	0.045	-3.101	-	-	121	13,552	
4/24/2015	2,748	37,720	301,243	0.125	-2.078	-	-	2,748	37,720	
4/25/2015	11	869	301,243	0.003	-5.848	-	-	11	869	
4/26/2015	12	543	301,243	0.002	-6.319	-	-	12	543	
4/27/2015	45	5,134	301,243	0.017	-4.072	-	-	45	5,134	
4/28/2015	105	8,594	301,243	0.029	-3.557	-	-	105	8,594	
4/29/2015	65	6,175	301,243	0.020	-3.887	1	100	64	6,075	
4/30/2015	3	170	301,243	0.001	-7.480	-	-	3	170	
5/1/2015	71	8,275	301,243	0.027	-3.595	-	-	71	8,275	
5/2/2015	47	4,587	301,243	0.015	-4.185	-	-	47	4,587	
5/3/2015	2,075	113,590	301,243	0.377	-0.975	-	-	2,075	113,590	
5/4/2015	879	39,949	301,243	0.133	-2.020	-	-	879	39,949	
5/5/2015	186	27,068	301,243	0.090	-2.410	-	-	186	27,068	
5/6/2015	730	57,001	301,243	0.189	-1.665	-	-	730	57,001	
5/7/2015	2,838	80,010	301,243	0.266	-1.326	2,831	79,849	7	161	
5/8/2015	342	29,169	301,243	0.097	-2.335	-	-	342	29,169	
5/9/2015	3,841	768,221	301,243	2.550	0.936	-	-	3,841	768,221	
5/10/2015	317	42,914	301,243	0.142	-1.949	-	-	317	42,914	
5/11/2015	5,976	382,350	301,243	1.269	0.238	5,257	318,384	719	63,966	
5/12/2015	149	19,970	301,243	0.066	-2.714	-	-	149	19,970	
5/13/2015	31	4,168	301,243	0.014	-4.280	-	-	31	4,168	
5/14/2015	272	22,862	301,243	0.076	-2.578	-	-	272	22,862	
5/15/2015	103	14,846	301,243	0.049	-3.010	-	-	103	14,846	
5/16/2015	56	8,174	301,243	0.027	-3.607	-	-	56	8,174	
5/17/2015	178	19,649	301,243	0.065	-2.730	-	-	178	19,649	
5/18/2015	3,533	130,877	301,243	0.434	-0.834	-	-	3,533	130,877	
5/19/2015	151	21,381	301,243	0.071	-2.645	-	-	151	21,381	
5/20/2015	1,266	38,470	301,243	0.128	-2.058	-	-	1,266	38,470	
5/21/2015	9	735	301,243	0.002	-6.016	-	-	9	735	
5/22/2015	187	11,606	301,243	0.039	-3.256	-	-	187	11,606	
5/23/2015	152	6,520	301,243	0.022	-3.833	-	-	152	6,520	
5/24/2015	114	9,902	301,243	0.033	-3.415	-	-	114	9,902	
5/25/2015	413	53,022	301,243	0.176	-1.737	-	-	413	53,022	
5/26/2015	13,045	2,023,318	301,243	6.717	1.905	2,720	278,267	10,325	1,745,051	
5/27/2015	1,910	320,591	301,243	1.064	0.062	-	-	1,910	320,591	
5/28/2015	428	63,150	301,243	0.210	-1.562	220	40,700	208	22,450	
5/29/2015	159	32,116	301,243	0.107	-2.239	-	-	159	32,116	
5/30/2015	8,227	251,190	301,243	0.834	-0.182	6,504	63,912	1,723	187,278	
5/31/2015	5,349	321,528	301,243	1.067	0.065	-	-	5,349	321,528	
6/1/2015	229	16,243	301,243	0.054	-2.920	-	-	229	16,243	
6/2/2015	213	22,152	301,243	0.074	-2.610	-	-	213	22,152	
6/3/2015	66	6,976	301,243	0.023	-3.765	-	-	66	6,976	
6/4/2015	210	22,794	301,243	0.076	-2.581	-	-	210	22,794	
6/5/2015	721	75,910	301,243	0.252	-1.378	-	-	721	75,910	
6/6/2015	1,187	130,738	301,243	0.434	-0.835	-	-	1,187	130,738	
6/7/2015	291	64,017	301,243	0.213	-1.549	-	-	291	64,017	
6/8/2015	2,374	239,060	301,243	0.794	-0.231	-	-	2,374	239,060	
6/9/2015	430	20,910	301,243	0.069	-2.668	-	-	430	20,910	
6/10/2015	6,682	1,223,200	301,243	4.061	1.401	-	-	6,682	1,223,200	
6/11/2015	642	128,700	301,243	0.427	-0.850	-	-	642	128,700	
6/12/2015	44	4,563	301,243	0.015	-4.190	-	-	44	4,563	
6/13/2015	4,737	285,994	301,243	0.949	-0.052	2,416	231,936	2,321	54,058	
6/14/2015	206	20,045	301,243	0.067	-2.710	1	156	205	19,889	
6/15/2015	1,832	148,907	301,243	0.494	-0.705	-	-	1,832	148,907	
6/16/2015	2,274	265,349	301,243	0.881	-0.127	-	-	2,274	265,349	
6/17/2015	89	9,791	301,243	0.033	-3.426	-	-	89	9,791	
6/18/2015	1,113	142,209	301,243	0.472	-0.751	-	-	1,113	142,209	
6/19/2015	32	3,339	301,243	0.011	-4.502	-	-	32	3,339	
6/20/2015	116	9,961	301,243	0.033	-3.409	-	-	116	9,961	
6/21/2015	52	4,645	301,243	0.015	-4.172	-	-	52	4,645	
6/22/2015	359	59,827	301,243	0.199	-1.616	-	-	359	59,827	
6/23/2015	301	45,786	301,243	0.152	-1.884	-	-	301	45,786	
6/24/2015	138	12,407	301,243	0.041	-3.190	-	-	138	12,407	
6/25/2015	76	6,488	301,243	0.022	-3.838	-	-	76	6,488	
6/26/2015	392	31,442	301,243	0.104	-2.260	205	4,510	187	26,932	
6/27/2015	17,194	7,315,427	301,243	24.284	3.190	-	-	17,194	7,315,427	
6/28/2015	392	143,594	301,243	0.477	-0.741	-	-	392	143,594	
6/29/2015	542	50,696	301,243	0.168	-1.782	-	-	542	50,696	
6/30/2015	77	10,789	301,243	0.036	-3.329	-	-	77	10,789	
7/1/2015	14	1,968	301,243	0.007	-5.031	-	-	14	1,968	
7/2/2015	2,556	204,196	301,243	0.678	-0.389	-	-	2,556	204,196	
7/3/2015	4	243	301,243	0.001	-7.123	-	-	4	243	
7/4/2015	148	11,447	301,243	0.038	-3.270	-	-	148	11,447	
7/5/2015	4,636	54,639	301,243	0.181	-1.707	4,527	44,035	109	10,604	
7/6/2015	195	27,718	301,243	0.092	-2.386	-	-	195	27,718	
7/7/2015	1,781	159,294	301,243	0.529	-0.637	-	-	1,781	159,294	
7/8/2015	97	8,478	301,243	0.028	-3.570	-	-	97	8,478	
7/9/2015	110	9,673	301,243	0.032	-3.439	-	-	110	9,673	
7/10/2015	391	11,121	301,243	0.037	-3.299	-	-	391	11,121	
7/11/2015	30	2,435	301,243	0.008	-4.818	-	-	30	2,435	
7/12/2015	146	13,134	301,243	0.044	-3.133	-	-	146	13,134	
7/13/2015	149	12,182	301,243	0.040	-3.208	-	-	149	12,182	
7/14/2015	640	83,509	301,243	0.277	-1.283	-	-	640	83,509	
7/15/2015	156	26,237	301,243	0.087	-2.441	-	-	156	26,237	
7/16/2015	144	26,837	301,243	0.089	-2.418	-	-	144	26,837	
7/17/2015	218	24,871	301,243	0.083	-2.494	1	111	217	24,760	
7/18/2015	1,397	62,905	301,243	0.209	-1.566	-	-	1,397	62,905	
7/19/2015	228	24,552	301,243	0.082	-2.507	-	-	228	24,552	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
7/20/2015	226	46,142	301,243	0.153	-1.876	-	-	226	46,142	
7/21/2015	132	16,058	301,243	0.053	-2.932	-	-	132	16,058	
7/22/2015	170	16,036	301,243	0.053	-2.933	-	-	170	16,036	
7/23/2015	5	638	301,243	0.002	-6.157	-	-	5	638	
7/24/2015	100	12,276	301,243	0.041	-3.200	-	-	100	12,276	
7/25/2015	1,886	194,012	301,243	0.644	-0.440	-	-	1,886	194,012	
7/26/2015	367	26,994	301,243	0.090	-2.412	-	-	367	26,994	
7/27/2015	278	52,669	301,243	0.175	-1.744	-	-	278	52,669	
7/28/2015	22	1,906	301,243	0.006	-5.063	-	-	22	1,906	
7/29/2015	1,785	143,886	301,243	0.478	-0.739	-	-	1,785	143,886	
7/30/2015	168	29,157	301,243	0.097	-2.335	-	-	168	29,157	
7/31/2015	129	9,681	301,243	0.032	-3.438	-	-	129	9,681	
8/1/2015	303	13,742	301,243	0.046	-3.087	-	-	303	13,742	
8/2/2015	1,446	90,249	301,243	0.300	-1.205	-	-	1,446	90,249	
8/3/2015	3,458	265,693	301,243	0.882	-0.126	-	-	3,458	265,693	
8/4/2015	302	30,870	301,243	0.102	-2.278	-	-	302	30,870	
8/5/2015	142	17,772	301,243	0.059	-2.830	-	-	142	17,772	
8/6/2015	142	16,311	301,243	0.054	-2.916	-	-	142	16,311	
8/7/2015	186	14,422	301,243	0.048	-3.039	-	-	186	14,422	
8/8/2015	5	375	301,243	0.001	-6.689	-	-	5	375	
8/9/2015	109	6,814	301,243	0.023	-3.789	-	-	109	6,814	
8/10/2015	3,298	132,417	301,243	0.440	-0.822	-	-	3,298	132,417	
8/11/2015	69	6,121	301,243	0.020	-3.896	-	-	69	6,121	
8/12/2015	224	37,204	301,243	0.124	-2.092	-	-	224	37,204	
8/13/2015	22	2,190	301,243	0.007	-4.924	-	-	22	2,190	
8/14/2015	4,262	494,618	301,243	1.642	0.496	4,020	444,244	242	50,374	
8/15/2015	8,504	1,248,908	301,243	4.146	1.422	855	114,570	7,649	1,134,338	
8/16/2015	36	3,406	301,243	0.011	-4.482	-	-	36	3,406	
8/17/2015	394	37,651	301,243	0.125	-2.080	1	71	393	37,580	
8/18/2015	481	65,078	301,243	0.216	-1.532	-	-	481	65,078	
8/19/2015	73	9,265	301,243	0.031	-3.482	-	-	73	9,265	
8/20/2015	487	32,163	301,243	0.107	-2.237	10	690	477	31,473	
8/21/2015	24	2,816	301,243	0.009	-4.673	-	-	24	2,816	
8/22/2015	68	4,107	301,243	0.014	-4.295	-	-	68	4,107	
8/23/2015	75	8,476	301,243	0.028	-3.571	-	-	75	8,476	
8/24/2015	12	1,355	301,243	0.004	-5.404	-	-	12	1,355	
8/25/2015	61	4,730	301,243	0.016	-4.154	-	-	61	4,730	
8/26/2015	503	27,177	301,243	0.090	-2.406	-	-	503	27,177	
8/27/2015	118	12,116	301,243	0.040	-3.213	-	-	118	12,116	
8/28/2015	20	1,610	301,243	0.005	-5.232	-	-	20	1,610	
8/29/2015	1	105	301,243	0.000	-7.962	-	-	1	105	
8/30/2015	122	14,469	301,243	0.048	-3.036	-	-	122	14,469	
8/31/2015	45	2,429	301,243	0.008	-4.820	-	-	45	2,429	
9/1/2015	259	21,344	301,243	0.071	-2.647	-	-	259	21,344	
9/2/2015	380	46,715	301,243	0.155	-1.864	-	-	380	46,715	
9/3/2015	1,625	313,592	301,243	1.041	0.040	-	-	1,625	313,592	
9/4/2015	929	145,759	301,243	0.484	-0.726	-	-	929	145,759	
9/5/2015	395	46,154	301,243	0.153	-1.876	-	-	395	46,154	
9/6/2015	248	29,401	301,243	0.098	-2.327	-	-	248	29,401	
9/7/2015	71	4,934	301,243	0.016	-4.112	-	-	71	4,934	
9/8/2015	99	14,674	301,243	0.049	-3.022	-	-	99	14,674	
9/9/2015	11	1,085	301,243	0.004	-5.626	-	-	11	1,085	
9/10/2015	18	1,536	301,243	0.005	-5.279	-	-	18	1,536	
9/11/2015	93	13,482	301,243	0.045	-3.107	-	-	93	13,482	
9/12/2015	135	7,787	301,243	0.026	-3.655	-	-	135	7,787	
9/13/2015	23	3,591	301,243	0.012	-4.429	-	-	23	3,591	
9/14/2015	89	16,561	301,243	0.055	-2.901	-	-	89	16,561	
9/15/2015	65	5,673	301,243	0.019	-3.972	-	-	65	5,673	
9/16/2015	99	19,312	301,243	0.064	-2.747	-	-	99	19,312	
9/17/2015	19	1,246	301,243	0.004	-5.488	-	-	19	1,246	
9/18/2015	27	3,585	301,243	0.012	-4.431	-	-	27	3,585	
9/19/2015	3,496	206,134	301,243	0.684	-0.379	-	-	3,496	206,134	
9/20/2015	109	8,828	301,243	0.029	-3.530	-	-	109	8,828	
9/21/2015	2,487	399,711	301,243	1.327	0.283	-	-	2,487	399,711	
9/22/2015	1,881	145,428	301,243	0.483	-0.728	-	-	1,881	145,428	
9/23/2015	280	27,498	301,243	0.091	-2.394	-	-	280	27,498	
9/24/2015	47	5,076	301,243	0.017	-4.083	-	-	47	5,076	
9/25/2015	1,306	62,702	301,243	0.208	-1.570	-	-	1,306	62,702	
9/26/2015	2	138	301,243	0.000	-7.688	-	-	2	138	
9/27/2015	80	12,959	301,243	0.043	-3.146	-	-	80	12,959	
9/28/2015	105	14,343	301,243	0.048	-3.045	-	-	105	14,343	
9/29/2015	8	471	301,243	0.002	-6.461	-	-	8	471	
9/30/2015	261	24,676	301,243	0.082	-2.502	-	-	261	24,676	
10/1/2015	419	53,721	301,243	0.178	-1.724	-	-	419	53,721	
10/2/2015	773	21,047	301,243	0.070	-2.661	-	-	773	21,047	
10/3/2015	5,780	344,840	301,243	1.145	0.135	-	-	5,780	344,840	
10/4/2015	62	7,732	301,243	0.026	-3.663	-	-	62	7,732	
10/5/2015	497	37,674	301,243	0.125	-2.079	-	-	497	37,674	
10/6/2015	5	385	301,243	0.001	-6.662	-	-	5	385	
10/7/2015	22	5,064	301,243	0.017	-4.086	-	-	22	5,064	
10/8/2015	19	2,864	301,243	0.010	-4.656	-	-	19	2,864	
10/9/2015	157	15,942	301,243	0.053	-2.939	-	-	157	15,942	
10/10/2015	39	4,509	301,243	0.015	-4.202	-	-	39	4,509	
10/11/2015	35	3,214	301,243	0.011	-4.540	-	-	35	3,214	
10/12/2015	106	10,463	301,243	0.035	-3.360	-	-	106	10,463	
10/13/2015	52	4,726	301,243	0.016	-4.155	-	-	52	4,726	
10/14/2015	25	1,522	301,243	0.005	-5.288	-	-	25	1,522	
10/15/2015	149	12,720	301,243	0.042	-3.165	-	-	149	12,720	
10/16/2015	43	3,247	301,243	0.011	-4.530	-	-	43	3,247	
10/17/2015	41	2,428	301,243	0.008	-4.821	-	-	41	2,428	
10/18/2015	392	26,388	301,243	0.088	-2.435	-	-	392	26,388	
10/19/2015	5,285	563,973	301,243	1.872	0.627	-	-	5,285	563,973	
10/20/2015	73	12,331	301,243	0.041	-3.196	-	-	73	12,331	
10/21/2015	29	2,730	301,243	0.009	-4.704	-	-	29	2,730	
10/22/2015	187	21,670	301,243	0.072	-2.632	-	-	187	21,670	
10/23/2015	76	8,190	301,243	0.027	-3.605	-	-	76	8,190	
10/24/2015	601	47,521	301,243	0.158	-1.847	-	-	601	47,521	
10/25/2015	64	5,325	301,243	0.018	-4.036	-	-	64	5,325	
10/26/2015	71	5,330	301,243	0.018	-4.035	-	-	71	5,330	
10/27/2015	188	49,086	301,243	0.163	-1.814	-	-	188	49,086	
10/28/2015	1,813	200,414	301,243	0.665	-0.408	-	-	1,813	200,414	
10/29/2015	226	37,826	301,243	0.126	-2.075	-	-	226	37,826	
10/30/2015	93	6,844	301,243	0.023	-3.785	-	-	93	6,844	
10/31/2015	17	1,286	301,243	0.004	-5.456	-	-	17	1,286	
11/1/2015	198	14,635	301,243	0.049	-3.025	-	-	198	14,635	
11/2/2015	113	7,209	301,243	0.024	-3.733	-	-	113	7,209	
11/3/2015	260	8,864	301,243	0.029	-3.526	-	-	260	8,864	
11/4/2015	181	13,579	301,243	0.045	-3.099	-	-	181	13,579	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

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Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
11/5/2015	59	6,618	301,243	0.022	-3.818	-	-	59	6,618	
11/6/2015	266	35,867	301,243	0.119	-2.128	-	-	266	35,867	
11/7/2015	474	45,528	301,243	0.151	-1.890	-	-	474	45,528	
11/8/2015	376	35,155	301,243	0.117	-2.148	-	-	376	35,155	
11/9/2015	363	44,143	301,243	0.147	-1.920	-	-	363	44,143	
11/10/2015	1,241	26,001	301,243	0.086	-2.450	-	-	1,241	26,001	
11/11/2015	91	12,563	301,243	0.042	-3.177	-	-	91	12,563	
11/12/2015	3,170	380,970	301,243	1.265	0.235	-	-	3,170	380,970	
11/13/2015	632	49,065	301,243	0.163	-1.815	-	-	632	49,065	
11/14/2015	878	24,171	301,243	0.080	-2.523	-	-	878	24,171	
11/15/2015	339	62,014	301,243	0.206	-1.581	-	-	339	62,014	
11/16/2015	54	5,545	301,243	0.018	-3.995	-	-	54	5,545	
11/17/2015	159	13,462	301,243	0.045	-3.108	-	-	159	13,462	
11/18/2015	818	65,238	301,243	0.217	-1.530	-	-	818	65,238	
11/19/2015	59	7,779	301,243	0.026	-3.656	-	-	59	7,779	
11/20/2015	43	7,938	301,243	0.026	-3.636	-	-	43	7,938	
11/21/2015	211	34,466	301,243	0.114	-2.168	-	-	211	34,466	
11/22/2015	44	4,797	301,243	0.016	-4.140	-	-	44	4,797	
11/23/2015	55	3,244	301,243	0.011	-4.531	-	-	55	3,244	
11/24/2015	47	2,379	301,243	0.008	-4.841	-	-	47	2,379	
11/25/2015	70	8,544	301,243	0.028	-3.563	-	-	70	8,544	
11/26/2015	24	2,837	301,243	0.009	-4.665	-	-	24	2,837	
11/27/2015	1,503	152,887	301,243	0.508	-0.678	-	-	1,503	152,887	
11/28/2015	89	6,476	301,243	0.021	-3.840	-	-	89	6,476	
11/29/2015	16	671	301,243	0.002	-6.107	-	-	16	671	
11/30/2015	43	4,485	301,243	0.015	-4.207	-	-	43	4,485	
12/1/2015	22	1,104	301,243	0.004	-5.609	-	-	22	1,104	
12/2/2015	67	19,649	301,243	0.065	-2.730	-	-	67	19,649	
12/3/2015	12	3,584	301,243	0.012	-4.431	-	-	12	3,584	
12/4/2015	42	4,884	301,243	0.016	-4.122	-	-	42	4,884	
12/5/2015	17	1,455	301,243	0.005	-5.333	-	-	17	1,455	
12/6/2015	122	8,508	301,243	0.028	-3.567	-	-	122	8,508	
12/7/2015	262	25,565	301,243	0.085	-2.467	-	-	262	25,565	
12/8/2015	14	3,336	301,243	0.011	-4.503	-	-	14	3,336	
12/9/2015	33	3,356	301,243	0.011	-4.497	-	-	33	3,356	
12/10/2015	30	2,589	301,243	0.009	-4.757	-	-	30	2,589	
12/11/2015	4	500	301,243	0.002	-6.401	-	-	4	500	
12/12/2015	65	6,037	301,243	0.020	-3.910	-	-	65	6,037	
12/13/2015	217	27,572	301,243	0.092	-2.391	-	-	217	27,572	
12/14/2015	893	82,345	301,243	0.273	-1.297	-	-	893	82,345	
12/15/2015	859	102,471	301,243	0.340	-1.078	-	-	859	102,471	
12/16/2015	373	24,681	301,243	0.082	-2.502	-	-	373	24,681	
12/17/2015	1,085	88,970	301,243	0.295	-1.220	-	-	1,085	88,970	
12/18/2015	26	867	301,243	0.003	-5.851	-	-	26	867	
12/19/2015	7	434	301,243	0.001	-6.543	-	-	7	434	
12/20/2015	39	4,368	301,243	0.014	-4.234	-	-	39	4,368	
12/21/2015	862	37,624	301,243	0.125	-2.080	-	-	862	37,624	
12/22/2015	38	1,836	301,243	0.006	-5.100	-	-	38	1,836	
12/23/2015	670	119,395	301,243	0.396	-0.925	-	-	670	119,395	
12/24/2015	1,575	62,933	301,243	0.209	-1.566	-	-	1,575	62,933	
12/25/2015	131	10,509	301,243	0.035	-3.356	-	-	131	10,509	
12/26/2015	56	7,096	301,243	0.024	-3.748	-	-	56	7,096	
12/27/2015	1,805	181,383	301,243	0.602	-0.507	-	-	1,805	181,383	
12/28/2015	5,873	827,455	301,243	2.747	1.010	-	-	5,873	827,455	
12/29/2015	179	18,102	301,243	0.060	-2.812	-	-	179	18,102	
12/30/2015	138	14,356	301,243	0.048	-3.044	-	-	138	14,356	
12/31/2015	7	980	301,243	0.003	-5.728	-	-	7	980	
1/1/2016	2,206	81,962	300,669	0.273	-1.300	-	-	2,206	81,962	
1/2/2016	5	275	300,669	0.001	-6.997	-	-	5	275	
1/3/2016	111	10,498	300,669	0.035	-3.355	-	-	111	10,498	
1/4/2016	22	2,700	300,669	0.009	-4.713	-	-	22	2,700	
1/5/2016	879	93,520	300,669	0.311	-1.168	-	-	879	93,520	
1/6/2016	71	5,998	300,669	0.020	-3.915	-	-	71	5,998	
1/7/2016	62	6,035	300,669	0.020	-3.908	-	-	62	6,035	
1/8/2016	200	20,292	300,669	0.067	-2.696	-	-	200	20,292	
1/9/2016	4	567	300,669	0.002	-6.273	-	-	4	567	
1/10/2016	1,688	186,601	300,669	0.621	-0.477	-	-	1,688	186,601	
1/11/2016	25	2,921	300,669	0.010	-4.634	-	-	25	2,921	
1/12/2016	35	3,779	300,669	0.013	-4.377	-	-	35	3,779	
1/13/2016	35	4,601	300,669	0.015	-4.180	-	-	35	4,601	
1/14/2016	1	83	300,669	0.000	-8.195	-	-	1	83	
1/15/2016	1,522	140,216	300,669	0.466	-0.763	-	-	1,522	140,216	
1/16/2016	35	6,776	300,669	0.023	-3.793	-	-	35	6,776	
1/17/2016	1,338	62,355	300,669	0.207	-1.573	-	-	1,338	62,355	
1/18/2016	23	2,551	300,669	0.008	-4.770	-	-	23	2,551	
1/19/2016	27	1,880	300,669	0.006	-5.075	-	-	27	1,880	
1/20/2016	80	6,238	300,669	0.021	-3.875	-	-	80	6,238	
1/21/2016	529	25,763	300,669	0.086	-2.457	-	-	529	25,763	
1/22/2016	593	7,330	300,669	0.024	-3.714	-	-	593	7,330	
1/23/2016	27	3,510	300,669	0.012	-4.450	-	-	27	3,510	
1/24/2016	24	1,559	300,669	0.005	-5.262	-	-	24	1,559	
1/25/2016	1	79	300,669	0.000	-8.244	-	-	1	79	
1/26/2016	69	5,498	300,669	0.018	-4.002	-	-	69	5,498	
1/27/2016	10	2,360	300,669	0.008	-4.847	-	-	10	2,360	
1/28/2016	83	7,864	300,669	0.026	-3.644	-	-	83	7,864	
1/29/2016	12	648	300,669	0.002	-6.140	-	-	12	648	
1/30/2016	50	5,196	300,669	0.017	-4.058	-	-	50	5,196	
1/31/2016	34	4,367	300,669	0.015	-4.232	-	-	34	4,367	
2/1/2016	37	1,825	300,669	0.006	-5.104	-	-	37	1,825	
2/2/2016	262	31,925	300,669	0.106	-2.243	-	-	262	31,925	
2/3/2016	436	32,930	300,669	0.110	-2.212	-	-	436	32,930	
2/4/2016	-	-	300,669			-	-			
2/5/2016	20	2,240	300,669	0.007	-4.900	-	-	20	2,240	
2/6/2016	58	2,432	300,669	0.008	-4.817	-	-	58	2,432	
2/7/2016	15	776	300,669	0.003	-5.960	-	-	15	776	
2/8/2016	29	2,044	300,669	0.007	-4.991	-	-	29	2,044	
2/9/2016	87	9,850	300,669	0.033	-3.419	-	-	87	9,850	
2/10/2016	64	11,874	300,669	0.039	-3.232	-	-	64	11,874	
2/11/2016	1	42	300,669	0.000	-8.876	-	-	1	42	
2/12/2016	1,496	109,110	300,669	0.363	-1.014	-	-	1,496	109,110	
2/13/2016	18	5,280	300,669	0.018	-4.042	-	-	18	5,280	
2/14/2016	8	1,264	300,669	0.004	-5.472	-	-	8	1,264	
2/15/2016	24	1,857	300,669	0.006	-5.087	-	-	24	1,857	
2/16/2016	20	2,660	300,669	0.009	-4.728	-	-	20	2,660	
2/17/2016	48	4,028	300,669	0.013	-4.313	-	-	48	4,028	
2/18/2016	36	747	300,669	0.002	-5.998	-	-	36	747	
2/19/2016	7,501	880,276	300,669	2.928	1.074	4,733	635,534	2,768	244,742	
2/20/2016	2,183	194,910	300,669	0.648	-0.433	-	-	2,183	194,910	

YEAR	Alpha	Beta	TMED NEW RULE
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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
2/21/2016	52	8,865	300,669	0.029	-3.524	-	-	52	8,865	
2/22/2016	153	25,461	300,669	0.085	-2.469	-	-	153	25,461	
2/23/2016	-	-	300,669			-	-			
2/24/2016	735	89,394	300,669	0.297	-1.213	-	-	735	89,394	
2/25/2016	73	8,035	300,669	0.027	-3.622	-	-	73	8,035	
2/26/2016	23	4,346	300,669	0.014	-4.237	-	-	23	4,346	
2/27/2016	56	4,178	300,669	0.014	-4.276	-	-	56	4,178	
2/28/2016	121	13,678	300,669	0.045	-3.090	-	-	121	13,678	
2/29/2016	1,540	151,894	300,669	0.505	-0.683	-	-	1,540	151,894	
3/1/2016	189	25,359	300,669	0.084	-2.473	-	-	189	25,359	
3/2/2016	8	1,856	300,669	0.006	-5.088	-	-	8	1,856	
3/3/2016	41	4,363	300,669	0.015	-4.233	-	-	41	4,363	
3/4/2016	55	3,160	300,669	0.011	-4.555	-	-	55	3,160	
3/5/2016	49	2,676	300,669	0.009	-4.722	-	-	49	2,676	
3/6/2016	147	29,943	300,669	0.100	-2.307	-	-	147	29,943	
3/7/2016	106	4,872	300,669	0.016	-4.123	-	-	106	4,872	
3/8/2016	177	73,669	300,669	0.245	-1.406	-	-	177	73,669	
3/9/2016	12	869	300,669	0.003	-5.846	-	-	12	869	
3/10/2016	277	23,656	300,669	0.079	-2.542	-	-	277	23,656	
3/11/2016	138	15,341	300,669	0.051	-2.975	-	-	138	15,341	
3/12/2016	42	1,886	300,669	0.006	-5.072	-	-	42	1,886	
3/13/2016	4,697	568,164	300,669	1.890	0.636	-	-	4,697	568,164	
3/14/2016	37	1,395	300,669	0.005	-5.373	-	-	37	1,395	
3/15/2016	97	6,980	300,669	0.023	-3.763	-	-	97	6,980	
3/16/2016	871	88,789	300,669	0.295	-1.220	-	-	871	88,789	
3/17/2016	267	32,469	300,669	0.108	-2.226	-	-	267	32,469	
3/18/2016	91	7,685	300,669	0.026	-3.667	-	-	91	7,685	
3/19/2016	24	2,138	300,669	0.007	-4.946	-	-	24	2,138	
3/20/2016	116	14,324	300,669	0.048	-3.044	-	-	116	14,324	
3/21/2016	66	8,938	300,669	0.030	-3.516	-	-	66	8,938	
3/22/2016	60	7,779	300,669	0.026	-3.655	-	-	60	7,779	
3/23/2016	31	2,398	300,669	0.008	-4.831	-	-	31	2,398	
3/24/2016	576	30,034	300,669	0.100	-2.304	-	-	576	30,034	
3/25/2016	2	98	300,669	0.000	-8.029	-	-	2	98	
3/26/2016	40	4,685	300,669	0.016	-4.162	-	-	40	4,685	
3/27/2016	269	45,030	300,669	0.150	-1.899	-	-	269	45,030	
3/28/2016	566	67,070	300,669	0.223	-1.500	-	-	566	67,070	
3/29/2016	99	16,126	300,669	0.054	-2.926	-	-	99	16,126	
3/30/2016	19	1,201	300,669	0.004	-5.523	-	-	19	1,201	
3/31/2016	4,168	719,737	300,669	2.394	0.873	3,597	590,862	571	128,875	
4/1/2016	15	1,223	300,669	0.004	-5.505	-	-	15	1,223	
4/2/2016	1,561	166,370	300,669	0.553	-0.592	-	-	1,561	166,370	
4/3/2016	495	67,857	300,669	0.226	-1.489	-	-	495	67,857	
4/4/2016	9	676	300,669	0.002	-6.098	-	-	9	676	
4/5/2016	55	2,915	300,669	0.010	-4.636	-	-	55	2,915	
4/6/2016	3,565	184,407	300,669	0.613	-0.489	-	-	3,565	184,407	
4/7/2016	390	34,042	300,669	0.113	-2.178	-	-	390	34,042	
4/8/2016	138	6,015	300,669	0.020	-3.912	-	-	138	6,015	
4/9/2016	4,055	1,663,445	300,669	5.532	1.711	-	-	4,055	1,663,445	
4/10/2016	46	8,681	300,669	0.029	-3.545	-	-	46	8,681	
4/11/2016	329	29,469	300,669	0.098	-2.323	-	-	329	29,469	
4/12/2016	22	3,457	300,669	0.011	-4.466	-	-	22	3,457	
4/13/2016	18	7,581	300,669	0.025	-3.680	-	-	18	7,581	
4/14/2016	37	3,440	300,669	0.011	-4.471	-	-	37	3,440	
4/15/2016	125	15,369	300,669	0.051	-2.974	-	-	125	15,369	
4/16/2016	-	-	300,669			-	-			
4/17/2016	106	11,142	300,669	0.037	-3.295	-	-	106	11,142	
4/18/2016	818	63,734	300,669	0.212	-1.551	-	-	818	63,734	
4/19/2016	5	932	300,669	0.003	-5.776	-	-	5	932	
4/20/2016	30	2,071	300,669	0.007	-4.978	-	-	30	2,071	
4/21/2016	115	10,739	300,669	0.036	-3.332	-	-	115	10,739	
4/22/2016	7	1,109	300,669	0.004	-5.603	-	-	7	1,109	
4/23/2016	385	25,221	300,669	0.084	-2.478	-	-	385	25,221	
4/24/2016	3	102	300,669	0.000	-7.989	-	-	3	102	
4/25/2016	22	3,235	300,669	0.011	-4.532	-	-	22	3,235	
4/26/2016	510	78,658	300,669	0.262	-1.341	-	-	510	78,658	
4/27/2016	41	3,098	300,669	0.010	-4.575	-	-	41	3,098	
4/28/2016	45	4,748	300,669	0.016	-4.148	-	-	45	4,748	
4/29/2016	36	4,087	300,669	0.014	-4.298	-	-	36	4,087	
4/30/2016	30	2,220	300,669	0.007	-4.909	-	-	30	2,220	
5/1/2016	174	12,183	300,669	0.041	-3.206	-	-	174	12,183	
5/2/2016	172	28,204	300,669	0.094	-2.367	-	-	172	28,204	
5/3/2016	171	21,882	300,669	0.073	-2.620	-	-	171	21,882	
5/4/2016	41	4,402	300,669	0.015	-4.224	-	-	41	4,402	
5/5/2016	44	9,997	300,669	0.033	-3.404	-	-	44	9,997	
5/6/2016	211	20,985	300,669	0.070	-2.662	-	-	211	20,985	
5/7/2016	1,671	70,524	300,669	0.235	-1.450	-	-	1,671	70,524	
5/8/2016	55	4,317	300,669	0.014	-4.243	-	-	55	4,317	
5/9/2016	14	1,500	300,669	0.005	-5.301	-	-	14	1,500	
5/10/2016	1,117	43,636	300,669	0.145	-1.930	-	-	1,117	43,636	
5/11/2016	57	7,355	300,669	0.024	-3.711	-	-	57	7,355	
5/12/2016	101	12,074	300,669	0.040	-3.215	-	-	101	12,074	
5/13/2016	131	12,386	300,669	0.041	-3.189	-	-	131	12,386	
5/14/2016	151	31,870	300,669	0.106	-2.244	-	-	151	31,870	
5/15/2016	12	892	300,669	0.003	-5.820	-	-	12	892	
5/16/2016	132	14,422	300,669	0.048	-3.037	-	-	132	14,422	
5/17/2016	86	13,274	300,669	0.044	-3.120	-	-	86	13,274	
5/18/2016	33	1,962	300,669	0.007	-5.032	-	-	33	1,962	
5/19/2016	41	4,195	300,669	0.014	-4.272	-	-	41	4,195	
5/20/2016	394	12,148	300,669	0.040	-3.209	-	-	394	12,148	
5/21/2016	316	45,418	300,669	0.151	-1.890	-	-	316	45,418	
5/22/2016	71	13,545	300,669	0.045	-3.100	-	-	71	13,545	
5/23/2016	44	3,392	300,669	0.011	-4.485	-	-	44	3,392	
5/24/2016	21	1,887	300,669	0.006	-5.071	-	-	21	1,887	
5/25/2016	835	31,341	300,669	0.104	-2.261	-	-	835	31,341	
5/26/2016	149	18,745	300,669	0.062	-2.775	-	-	149	18,745	
5/27/2016	194	24,929	300,669	0.083	-2.490	-	-	194	24,929	
5/28/2016	2,631	287,594	300,669	0.957	-0.044	-	-	2,631	287,594	
5/29/2016	48	7,607	300,669	0.025	-3.677	-	-	48	7,607	
5/30/2016	36	3,640	300,669	0.012	-4.414	-	-	36	3,640	
5/31/2016	2,288	178,971	300,669	0.595	-0.519	-	-	2,288	178,971	
6/1/2016	539	47,415	300,669	0.158	-1.847	-	-	539	47,415	
6/2/2016	240	16,724	300,669	0.056	-2.889	-	-	240	16,724	
6/3/2016	132	11,615	300,669	0.039	-3.254	-	-	132	11,615	
6/4/2016	910	179,530	300,669	0.597	-0.516	-	-	910	179,530	
6/5/2016	2,845	544,964	300,669	1.813	0.595	-	-	2,845	544,964	
6/6/2016	361	29,352	300,669	0.098	-2.327	-	-	361	29,352	
6/7/2016	98	9,030	300,669	0.030	-3.505	-	-	98	9,030	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
6/8/2016	74	4,988	300,669	0.017	-4.099	-	-	74	4,988	
6/9/2016	216	18,680	300,669	0.062	-2.779	-	-	216	18,680	
6/10/2016	30	1,764	300,669	0.006	-5.138	-	-	30	1,764	
6/11/2016	2,187	243,854	300,669	0.811	-0.209	-	-	2,187	243,854	
6/12/2016	839	108,462	300,669	0.361	-1.020	-	-	839	108,462	
6/13/2016	6,785	950,676	300,669	3.162	1.151	6,617	933,959	168	16,717	
6/14/2016	960	107,076	300,669	0.356	-1.032	-	-	960	107,076	
6/15/2016	1,456	109,313	300,669	0.364	-1.012	-	-	1,456	109,313	
6/16/2016	443	49,451	300,669	0.164	-1.805	-	-	443	49,451	
6/17/2016	173	16,108	300,669	0.054	-2.927	-	-	173	16,108	
6/18/2016	161	32,523	300,669	0.108	-2.224	-	-	161	32,523	
6/19/2016	355	55,531	300,669	0.185	-1.689	-	-	355	55,531	
6/20/2016	481	58,119	300,669	0.193	-1.644	-	-	481	58,119	
6/21/2016	1,004	101,575	300,669	0.338	-1.085	-	-	1,004	101,575	
6/22/2016	236	27,830	300,669	0.093	-2.380	-	-	236	27,830	
6/23/2016	1,151	166,476	300,669	0.554	-0.591	-	-	1,151	166,476	
6/24/2016	175	13,106	300,669	0.044	-3.133	-	-	175	13,106	
6/25/2016	491	64,962	300,669	0.216	-1.532	-	-	491	64,962	
6/26/2016	361	73,343	300,669	0.244	-1.411	-	-	361	73,343	
6/27/2016	308	53,469	300,669	0.178	-1.727	-	-	308	53,469	
6/28/2016	1,904	206,517	300,669	0.687	-0.376	-	-	1,904	206,517	
6/29/2016	92	10,804	300,669	0.036	-3.326	-	-	92	10,804	
6/30/2016	209	11,523	300,669	0.038	-3.262	-	-	209	11,523	
7/1/2016	331	52,561	300,669	0.175	-1.744	-	-	331	52,561	
7/2/2016	184	39,085	300,669	0.130	-2.040	-	-	184	39,085	
7/3/2016	107	6,097	300,669	0.020	-3.898	-	-	107	6,097	
7/4/2016	33	2,672	300,669	0.009	-4.723	-	-	33	2,672	
7/5/2016	5,728	275,043	300,669	0.915	-0.089	-	-	5,728	275,043	
7/6/2016	57	13,616	300,669	0.045	-3.095	-	-	57	13,616	
7/7/2016	268	34,123	300,669	0.113	-2.176	-	-	268	34,123	
7/8/2016	821	156,952	300,669	0.522	-0.650	-	-	821	156,952	
7/9/2016	93	10,685	300,669	0.036	-3.337	-	-	93	10,685	
7/10/2016	104	7,419	300,669	0.025	-3.702	3	213	101	7,206	
7/11/2016	155	18,447	300,669	0.061	-2.791	-	-	155	18,447	
7/12/2016	3,248	187,183	300,669	0.623	-0.474	-	-	3,248	187,183	
7/13/2016	5,664	688,451	300,669	2.290	0.828	-	-	5,664	688,451	
7/14/2016	1,316	31,038	300,669	0.103	-2.271	-	-	1,316	31,038	
7/15/2016	177	21,208	300,669	0.071	-2.652	-	-	177	21,208	
7/16/2016	267	27,512	300,669	0.092	-2.391	-	-	267	27,512	
7/17/2016	10	472	300,669	0.002	-6.457	-	-	10	472	
7/18/2016	9,875	1,643,454	300,669	5.466	1.699	-	-	9,875	1,643,454	
7/19/2016	115	17,170	300,669	0.057	-2.863	-	-	115	17,170	
7/20/2016	372	55,127	300,669	0.183	-1.696	-	-	372	55,127	
7/21/2016	45	1,674	300,669	0.006	-5.191	-	-	45	1,674	
7/22/2016	3,775	356,450	300,669	1.186	0.170	-	-	3,775	356,450	
7/23/2016	3,487	304,996	300,669	1.014	0.014	-	-	3,487	304,996	
7/24/2016	1,647	88,647	300,669	0.295	-1.221	-	-	1,647	88,647	
7/25/2016	511	44,577	300,669	0.148	-1.909	-	-	511	44,577	
7/26/2016	479	113,158	300,669	0.376	-0.977	-	-	479	113,158	
7/27/2016	53	2,739	300,669	0.009	-4.698	-	-	53	2,739	
7/28/2016	50	3,837	300,669	0.013	-4.361	-	-	50	3,837	
7/29/2016	1,182	174,061	300,669	0.579	-0.547	-	-	1,182	174,061	
7/30/2016	1,374	225,142	300,669	0.749	-0.289	-	-	1,374	225,142	
7/31/2016	213	16,078	300,669	0.053	-2.929	-	-	213	16,078	
8/1/2016	97	21,234	300,669	0.071	-2.650	-	-	97	21,234	
8/2/2016	158	21,446	300,669	0.071	-2.640	-	-	158	21,446	
8/3/2016	27	1,707	300,669	0.006	-5.171	-	-	27	1,707	
8/4/2016	44	6,644	300,669	0.022	-3.812	-	-	44	6,644	
8/5/2016	61	9,193	300,669	0.031	-3.488	-	-	61	9,193	
8/6/2016	151	19,063	300,669	0.063	-2.758	-	-	151	19,063	
8/7/2016	1,158	125,412	300,669	0.417	-0.874	-	-	1,158	125,412	
8/8/2016	77	6,765	300,669	0.022	-3.794	-	-	77	6,765	
8/9/2016	2,644	386,928	300,669	1.287	0.252	-	-	2,644	386,928	
8/10/2016	496	64,338	300,669	0.214	-1.542	-	-	496	64,338	
8/11/2016	442	48,218	300,669	0.160	-1.830	-	-	442	48,218	
8/12/2016	274	40,228	300,669	0.134	-2.011	-	-	274	40,228	
8/13/2016	949	141,938	300,669	0.472	-0.751	-	-	949	141,938	
8/14/2016	227	32,202	300,669	0.107	-2.234	-	-	227	32,202	
8/15/2016	105	9,760	300,669	0.032	-3.428	-	-	105	9,760	
8/16/2016	189	20,759	300,669	0.069	-2.673	-	-	189	20,759	
8/17/2016	221	33,341	300,669	0.111	-2.199	-	-	221	33,341	
8/18/2016	10	977	300,669	0.003	-5.729	-	-	10	977	
8/19/2016	274	36,624	300,669	0.122	-2.105	-	-	274	36,624	
8/20/2016	621	92,951	300,669	0.309	-1.174	-	-	621	92,951	
8/21/2016	156	24,850	300,669	0.083	-2.493	-	-	156	24,850	
8/22/2016	41	5,070	300,669	0.017	-4.083	-	-	41	5,070	
8/23/2016	141	32,452	300,669	0.108	-2.226	-	-	141	32,452	
8/24/2016	2,416	244,185	300,669	0.812	-0.208	-	-	2,416	244,185	
8/25/2016	749	43,354	300,669	0.144	-1.937	-	-	749	43,354	
8/26/2016	36	2,348	300,669	0.008	-4.852	-	-	36	2,348	
8/27/2016	1,874	260,783	300,669	0.867	-0.142	-	-	1,874	260,783	
8/28/2016	488	76,874	300,669	0.256	-1.364	-	-	488	76,874	
8/29/2016	58	10,570	300,669	0.035	-3.348	-	-	58	10,570	
8/30/2016	1,252	108,787	300,669	0.362	-1.017	-	-	1,252	108,787	
8/31/2016	28	2,470	300,669	0.008	-4.802	-	-	28	2,470	
9/1/2016	214	18,165	300,669	0.060	-2.807	-	-	214	18,165	
9/2/2016	145	45,451	300,669	0.151	-1.889	-	-	145	45,451	
9/3/2016	38	4,221	300,669	0.014	-4.266	-	-	38	4,221	
9/4/2016	37	4,507	300,669	0.015	-4.200	-	-	37	4,507	
9/5/2016	228	23,692	300,669	0.079	-2.541	-	-	228	23,692	
9/6/2016	125	3,550	300,669	0.012	-4.439	-	-	125	3,550	
9/7/2016	287	35,544	300,669	0.118	-2.135	-	-	287	35,544	
9/8/2016	169	13,226	300,669	0.044	-3.124	-	-	169	13,226	
9/9/2016	60	4,711	300,669	0.016	-4.156	-	-	60	4,711	
9/10/2016	250	27,066	300,669	0.090	-2.408	-	-	250	27,066	
9/11/2016	45	9,593	300,669	0.032	-3.445	-	-	45	9,593	
9/12/2016	252	22,638	300,669	0.075	-2.586	-	-	252	22,638	
9/13/2016	89	14,997	300,669	0.050	-2.998	-	-	89	14,997	
9/14/2016	103	6,232	300,669	0.021	-3.876	-	-	103	6,232	
9/15/2016	423	29,165	300,669	0.097	-2.333	-	-	423	29,165	
9/16/2016	19	3,512	300,669	0.012	-4.450	-	-	19	3,512	
9/17/2016	1,727	147,889	300,669	0.492	-0.710	-	-	1,727	147,889	
9/18/2016	144	13,335	300,669	0.044	-3.116	-	-	144	13,335	
9/19/2016	740	23,089	300,669	0.077	-2.567	-	-	740	23,089	
9/20/2016	154	11,021	300,669	0.037	-3.306	-	-	154	11,021	
9/21/2016	2,121	89,469	300,669	0.298	-1.212	32	2,688	2,089	86,781	
9/22/2016	384	44,663	300,669	0.149	-1.907	-	-	384	44,663	
9/23/2016	59	5,557	300,669	0.018	-3.991	-	-	59	5,557	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
9/24/2016	4,924	237,155	300,669	0.789	-0.237	4,721	212,445	203	24,710	
9/25/2016	45	3,840	300,669	0.013	-4.361	-	-	45	3,840	
9/26/2016	363	47,266	300,669	0.157	-1.850	-	-	363	47,266	
9/27/2016	46	3,896	300,669	0.013	-4.346	-	-	46	3,896	
9/28/2016	120	15,389	300,669	0.051	-2.972	-	-	120	15,389	
9/29/2016	456	51,562	300,669	0.171	-1.763	-	-	456	51,562	
9/30/2016	548	95,664	300,669	0.318	-1.145	-	-	548	95,664	
10/1/2016	682	52,243	300,669	0.174	-1.750	-	-	682	52,243	
10/2/2016	193	39,853	300,669	0.133	-2.021	-	-	193	39,853	
10/3/2016	335	4,478	300,669	0.015	-4.207	-	-	335	4,478	
10/4/2016	1,853	185,717	300,669	0.618	-0.482	-	-	1,853	185,717	
10/5/2016	2,484	53,296	300,669	0.177	-1.730	-	-	2,484	53,296	
10/6/2016	52	18,913	300,669	0.063	-2.766	-	-	52	18,913	
10/7/2016	160	11,677	300,669	0.039	-3.248	-	-	160	11,677	
10/8/2016	82	13,954	300,669	0.046	-3.070	-	-	82	13,954	
10/9/2016	15	1,220	300,669	0.004	-5.507	-	-	15	1,220	
10/10/2016	166	32,483	300,669	0.108	-2.225	-	-	166	32,483	
10/11/2016	138	13,638	300,669	0.045	-3.093	-	-	138	13,638	
10/12/2016	130	9,120	300,669	0.030	-3.496	-	-	130	9,120	
10/13/2016	35	2,187	300,669	0.007	-4.923	-	-	35	2,187	
10/14/2016	53	9,351	300,669	0.031	-3.471	-	-	53	9,351	
10/15/2016	37	6,315	300,669	0.021	-3.863	-	-	37	6,315	
10/16/2016	58	5,570	300,669	0.019	-3.989	-	-	58	5,570	
10/17/2016	1,751	243,803	300,669	0.811	-0.210	-	-	1,751	243,803	
10/18/2016	63	5,760	300,669	0.019	-3.955	-	-	63	5,760	
10/19/2016	285	29,519	300,669	0.098	-2.321	-	-	285	29,519	
10/20/2016	1,814	82,000	300,669	0.273	-1.299	-	-	1,814	82,000	
10/21/2016	66	13,710	300,669	0.046	-3.088	-	-	66	13,710	
10/22/2016	18	1,040	300,669	0.003	-5.667	-	-	18	1,040	
10/23/2016	78	7,622	300,669	0.025	-3.675	-	-	78	7,622	
10/24/2016	13	1,190	300,669	0.004	-5.532	-	-	13	1,190	
10/25/2016	126	15,616	300,669	0.052	-2.958	9	539	117	15,077	
10/26/2016	27	1,566	300,669	0.005	-5.257	-	-	27	1,566	
10/27/2016	27	2,375	300,669	0.008	-4.841	-	-	27	2,375	
10/28/2016	61	3,497	300,669	0.012	-4.454	1	56	60	3,441	
10/29/2016	2,256	236,817	300,669	0.788	-0.239	-	-	2,256	236,817	
10/30/2016	14	901	300,669	0.003	-5.810	-	-	14	901	
10/31/2016	1,313	224,768	300,669	0.748	-0.291	-	-	1,313	224,768	
11/1/2016	31	1,419	300,669	0.005	-5.356	-	-	31	1,419	
11/2/2016	279	34,148	300,669	0.114	-2.175	-	-	279	34,148	
11/3/2016	364	38,270	300,669	0.127	-2.061	-	-	364	38,270	
11/4/2016	354	19,195	300,669	0.064	-2.751	-	-	354	19,195	
11/5/2016	3,281	157,105	300,669	0.523	-0.649	-	-	3,281	157,105	
11/6/2016	24	1,368	300,669	0.005	-5.393	-	-	24	1,368	
11/7/2016	255	46,450	300,669	0.154	-1.868	-	-	255	46,450	
11/8/2016	447	51,546	300,669	0.171	-1.764	-	-	447	51,546	
11/9/2016	61	6,699	300,669	0.022	-3.804	-	-	61	6,699	
11/10/2016	967	97,678	300,669	0.325	-1.124	-	-	967	97,678	
11/11/2016	813	54,688	300,669	0.182	-1.704	-	-	813	54,688	
11/12/2016	44	3,345	300,669	0.011	-4.499	-	-	44	3,345	
11/13/2016	53	8,175	300,669	0.027	-3.605	-	-	53	8,175	
11/14/2016	54	4,456	300,669	0.015	-4.212	-	-	54	4,456	
11/15/2016	387	7,921	300,669	0.026	-3.636	-	-	387	7,921	
11/16/2016	10	3,414	300,669	0.011	-4.478	-	-	10	3,414	
11/17/2016	67	5,818	300,669	0.019	-3.945	-	-	67	5,818	
11/18/2016	1,425	12,037	300,669	0.040	-3.218	-	-	1,425	12,037	
11/19/2016	538	67,241	300,669	0.224	-1.498	-	-	538	67,241	
11/20/2016	127	19,963	300,669	0.066	-2.712	-	-	127	19,963	
11/21/2016	1,131	117,530	300,669	0.391	-0.939	-	-	1,131	117,530	
11/22/2016	162	12,936	300,669	0.043	-3.146	-	-	162	12,936	
11/23/2016	1,497	89,580	300,669	0.298	-1.211	-	-	1,497	89,580	
11/24/2016	8	350	300,669	0.001	-6.756	-	-	8	350	
11/25/2016	17	3,553	300,669	0.012	-4.438	-	-	17	3,553	
11/26/2016	9	2,377	300,669	0.008	-4.840	-	-	9	2,377	
11/27/2016	49	4,116	300,669	0.014	-4.291	-	-	49	4,116	
11/28/2016	1,454	96,757	300,669	0.322	-1.134	-	-	1,454	96,757	
11/29/2016	93	15,214	300,669	0.051	-2.984	-	-	93	15,214	
11/30/2016	41	4,993	300,669	0.017	-4.098	-	-	41	4,993	
12/1/2016	11	374	300,669	0.001	-6.690	-	-	11	374	
12/2/2016	24	1,997	300,669	0.007	-5.014	-	-	24	1,997	
12/3/2016	5,733	391,970	300,669	1.304	0.265	-	-	5,733	391,970	
12/4/2016	59	3,416	300,669	0.011	-4.478	-	-	59	3,416	
12/5/2016	66	7,027	300,669	0.023	-3.756	-	-	66	7,027	
12/6/2016	19	1,533	300,669	0.005	-5.279	-	-	19	1,533	
12/7/2016	334	26,884	300,669	0.089	-2.414	-	-	334	26,884	
12/8/2016	66	8,273	300,669	0.028	-3.593	-	-	66	8,273	
12/9/2016	154	15,863	300,669	0.053	-2.942	-	-	154	15,863	
12/10/2016	23	4,610	300,669	0.015	-4.178	-	-	23	4,610	
12/11/2016	206	41,523	300,669	0.138	-1.980	-	-	206	41,523	
12/12/2016	528	23,232	300,669	0.077	-2.560	-	-	528	23,232	
12/13/2016	54	4,025	300,669	0.013	-4.313	-	-	54	4,025	
12/14/2016	31	3,303	300,669	0.011	-4.511	-	-	31	3,303	
12/15/2016	-	-	300,669			-	-			
12/16/2016	1	89	300,669	0.000	-8.125	-	-	1	89	
12/17/2016	23	12,029	300,669	0.040	-3.219	-	-	23	12,029	
12/18/2016	43	8,488	300,669	0.028	-3.567	-	-	43	8,488	
12/19/2016	1	46	300,669	0.000	-8.785	-	-	1	46	
12/20/2016	48	4,564	300,669	0.015	-4.188	-	-	48	4,564	
12/21/2016	45	9,305	300,669	0.031	-3.475	-	-	45	9,305	
12/22/2016	164	12,176	300,669	0.040	-3.207	-	-	164	12,176	
12/23/2016	-	-	300,669			-	-			
12/24/2016	302	33,752	300,669	0.112	-2.187	-	-	302	33,752	
12/25/2016	5	670	300,669	0.002	-6.106	-	-	5	670	
12/26/2016	1,546	150,879	300,669	0.502	-0.690	-	-	1,546	150,879	
12/27/2016	18	2,920	300,669	0.010	-4.634	-	-	18	2,920	
12/28/2016	116	11,356	300,669	0.038	-3.276	-	-	116	11,356	
12/29/2016	25	6,680	300,669	0.022	-3.807	-	-	25	6,680	
12/30/2016	64	5,788	300,669	0.019	-3.950	-	-	64	5,788	
12/31/2016	115	9,871	300,669	0.033	-3.416	-	-	115	9,871	
1/1/2017	65	4,385	302,315	0.015	-4.233	-	-	65	4,385	
1/2/2017	34	1,054	302,315	0.003	-5.659	-	-	34	1,054	
1/3/2017	2,007	63,269	302,315	0.209	-1.564	-	-	2,007	63,269	
1/4/2017	88	13,431	302,315	0.044	-3.114	-	-	88	13,431	
1/5/2017	12	726	302,315	0.002	-6.032	-	-	12	726	
1/6/2017	-	-	302,315			-	-			
1/7/2017	10	782	302,315	0.003	-5.957	-	-	10	782	
1/8/2017	36	5,250	302,315	0.017	-4.053	-	-	36	5,250	
1/9/2017	2	188	302,315	0.001	-7.383	-	-	2	188	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
1/10/2017	11,749	2,481,078	302,315	8.207	2.105	-	-	11,749	2,481,078	1
1/11/2017	1,263	102,120	302,315	0.338	-1.085	-	-	1,263	102,120	
1/12/2017	109	13,931	302,315	0.046	-3.077	-	-	109	13,931	
1/13/2017	58	18,486	302,315	0.061	-2.794	-	-	58	18,486	
1/14/2017	19	3,472	302,315	0.011	-4.467	-	-	19	3,472	
1/15/2017	106	9,259	302,315	0.031	-3.486	-	-	106	9,259	
1/16/2017	66	3,202	302,315	0.011	-4.548	-	-	66	3,202	
1/17/2017	102	9,980	302,315	0.033	-3.411	-	-	102	9,980	
1/18/2017	49	10,486	302,315	0.035	-3.361	-	-	49	10,486	
1/19/2017	13	1,155	302,315	0.004	-5.567	-	-	13	1,155	
1/20/2017	204	35,245	302,315	0.117	-2.149	-	-	204	35,245	
1/21/2017	69	4,485	302,315	0.015	-4.211	-	-	69	4,485	
1/22/2017	68	4,014	302,315	0.013	-4.322	-	-	68	4,014	
1/23/2017	96	861	302,315	0.003	-5.861	-	-	96	861	
1/24/2017	11	401	302,315	0.001	-6.625	-	-	11	401	
1/25/2017	93	14,211	302,315	0.047	-3.057	-	-	93	14,211	
1/26/2017	108	13,313	302,315	0.044	-3.123	-	-	108	13,313	
1/27/2017	107	9,483	302,315	0.031	-3.462	-	-	107	9,483	
1/28/2017	2	239	302,315	0.001	-7.143	-	-	2	239	
1/29/2017	16	1,610	302,315	0.005	-5.235	-	-	16	1,610	
1/30/2017	4,733	507,238	302,315	1.678	0.518	-	-	4,733	507,238	
1/31/2017	160	18,252	302,315	0.060	-2.807	-	-	160	18,252	
2/1/2017	135	5,166	302,315	0.017	-4.069	-	-	135	5,166	
2/2/2017	14	2,014	302,315	0.007	-5.011	-	-	14	2,014	
2/3/2017	1	114	302,315	0.000	-7.883	-	-	1	114	
2/4/2017	8	460	302,315	0.002	-6.488	-	-	8	460	
2/5/2017	40	9,314	302,315	0.031	-3.480	-	-	40	9,314	
2/6/2017	96	7,634	302,315	0.025	-3.679	-	-	96	7,634	
2/7/2017	1,056	68,394	302,315	0.226	-1.486	-	-	1,056	68,394	
2/8/2017	72	7,323	302,315	0.024	-3.720	-	-	72	7,323	
2/9/2017	52	7,085	302,315	0.023	-3.753	-	-	52	7,085	
2/10/2017	49	4,214	302,315	0.014	-4.273	-	-	49	4,214	
2/11/2017	7	399	302,315	0.001	-6.630	-	-	7	399	
2/12/2017	127	15,293	302,315	0.051	-2.984	-	-	127	15,293	
2/13/2017	20	1,334	302,315	0.004	-5.423	-	-	20	1,334	
2/14/2017	71	4,448	302,315	0.015	-4.219	-	-	71	4,448	
2/15/2017	9	1,062	302,315	0.004	-5.651	-	-	9	1,062	
2/16/2017	7	2,079	302,315	0.007	-4.980	-	-	7	2,079	
2/17/2017	15	1,532	302,315	0.005	-5.285	-	-	15	1,532	
2/18/2017	582	24,201	302,315	0.080	-2.525	-	-	582	24,201	
2/19/2017	17	1,029	302,315	0.003	-5.683	-	-	17	1,029	
2/20/2017	4	279	302,315	0.001	-6.988	-	-	4	279	
2/21/2017	83	4,067	302,315	0.013	-4.309	-	-	83	4,067	
2/22/2017	5	329	302,315	0.001	-6.823	-	-	5	329	
2/23/2017	29	4,273	302,315	0.014	-4.259	-	-	29	4,273	
2/24/2017	1,341	124,021	302,315	0.410	-0.891	-	-	1,341	124,021	
2/25/2017	15	4,923	302,315	0.016	-4.118	-	-	15	4,923	
2/26/2017	9	648	302,315	0.002	-6.145	-	-	9	648	
2/27/2017	141	7,694	302,315	0.025	-3.671	-	-	141	7,694	
2/28/2017	38	2,679	302,315	0.009	-4.726	-	-	38	2,679	
3/1/2017	1,186	188,829	302,315	0.625	-0.471	-	-	1,186	188,829	
3/2/2017	1,801	20,101	302,315	0.066	-2.711	-	-	1,801	20,101	
3/3/2017	60	15,417	302,315	0.051	-2.976	-	-	60	15,417	
3/4/2017	119	15,031	302,315	0.050	-3.001	-	-	119	15,031	
3/5/2017	9	1,609	302,315	0.005	-5.236	-	-	9	1,609	
3/6/2017	81	7,502	302,315	0.025	-3.696	-	-	81	7,502	
3/7/2017	350	35,999	302,315	0.119	-2.128	-	-	350	35,999	
3/8/2017	43,784	19,694,489	302,315	65.146	4.177	4,468	1,086,824	39,316	18,607,665	1
3/9/2017	411	241,561	302,315	0.799	-0.224	-	-	411	241,561	
3/10/2017	98	25,810	302,315	0.085	-2.461	-	-	98	25,810	
3/11/2017	143	6,592	302,315	0.022	-3.826	-	-	143	6,592	
3/12/2017	-	-	302,315			-	-			
3/13/2017	259	50,698	302,315	0.168	-1.786	-	-	259	50,698	
3/14/2017	34	2,555	302,315	0.008	-4.773	-	-	34	2,555	
3/15/2017	25	696	302,315	0.002	-6.074	-	-	25	696	
3/16/2017	272	13,573	302,315	0.045	-3.103	-	-	272	13,573	
3/17/2017	58	7,759	302,315	0.026	-3.663	-	-	58	7,759	
3/18/2017	38	2,812	302,315	0.009	-4.678	-	-	38	2,812	
3/19/2017	8	886	302,315	0.003	-5.833	-	-	8	886	
3/20/2017	315	20,873	302,315	0.069	-2.673	-	-	315	20,873	
3/21/2017	20	2,011	302,315	0.007	-5.013	-	-	20	2,011	
3/22/2017	61	3,171	302,315	0.010	-4.557	-	-	61	3,171	
3/23/2017	99	9,912	302,315	0.033	-3.418	-	-	99	9,912	
3/24/2017	241	20,396	302,315	0.067	-2.696	-	-	241	20,396	
3/25/2017	185	21,608	302,315	0.071	-2.638	-	-	185	21,608	
3/26/2017	249	49,915	302,315	0.165	-1.801	-	-	249	49,915	
3/27/2017	38	2,666	302,315	0.009	-4.731	-	-	38	2,666	
3/28/2017	4	295	302,315	0.001	-6.932	-	-	4	295	
3/29/2017	68	5,900	302,315	0.020	-3.937	-	-	68	5,900	
3/30/2017	1,655	94,849	302,315	0.314	-1.159	-	-	1,655	94,849	
3/31/2017	185	24,314	302,315	0.080	-2.520	-	-	185	24,314	
4/1/2017	28	1,509	302,315	0.005	-5.300	-	-	28	1,509	
4/2/2017	17	2,418	302,315	0.008	-4.829	-	-	17	2,418	
4/3/2017	143	10,855	302,315	0.036	-3.327	-	-	143	10,855	
4/4/2017	50	4,769	302,315	0.016	-4.149	-	-	50	4,769	
4/5/2017	437	46,835	302,315	0.155	-1.865	-	-	437	46,835	
4/6/2017	476	52,792	302,315	0.175	-1.745	-	-	476	52,792	
4/7/2017	173	11,672	302,315	0.039	-3.254	-	-	173	11,672	
4/8/2017	12	1,534	302,315	0.005	-5.284	-	-	12	1,534	
4/9/2017	4	876	302,315	0.003	-5.844	-	-	4	876	
4/10/2017	28	4,032	302,315	0.013	-4.317	-	-	28	4,032	
4/11/2017	2,129	129,711	302,315	0.429	-0.846	-	-	2,129	129,711	
4/12/2017	218	7,973	302,315	0.026	-3.635	-	-	218	7,973	
4/13/2017	13	1,246	302,315	0.004	-5.492	-	-	13	1,246	
4/14/2017	4	585	302,315	0.002	-6.248	-	-	4	585	
4/15/2017	606	67,964	302,315	0.225	-1.492	-	-	606	67,964	
4/16/2017	25	5,498	302,315	0.018	-4.007	-	-	25	5,498	
4/17/2017	211	14,148	302,315	0.047	-3.062	-	-	211	14,148	
4/18/2017	27	2,322	302,315	0.008	-4.869	-	-	27	2,322	
4/19/2017	915	150,051	302,315	0.496	-0.700	-	-	915	150,051	
4/20/2017	1,687	188,602	302,315	0.624	-0.472	-	-	1,687	188,602	
4/21/2017	43	3,415	302,315	0.011	-4.483	-	-	43	3,415	
4/22/2017	28	296	302,315	0.001	-6.929	-	-	28	296	
4/23/2017	108	17,176	302,315	0.057	-2.868	-	-	108	17,176	
4/24/2017	6,677	859,061	302,315	2.842	1.044	-	-	6,677	859,061	
4/25/2017	58	4,404	302,315	0.015	-4.229	-	-	58	4,404	
4/26/2017	97	6,571	302,315	0.022	-3.829	-	-	97	6,571	
4/27/2017	975	108,455	302,315	0.359	-1.025	-	-	975	108,455	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
4/28/2017	16	1,050	302,315	0.003	-5.663	-	-	16	1,050	
4/29/2017	92	23,984	302,315	0.079	-2.534	-	-	92	23,984	
4/30/2017	425	68,548	302,315	0.227	-1.484	-	-	425	68,548	
5/1/2017	118	22,356	302,315	0.074	-2.604	-	-	118	22,356	
5/2/2017	101	10,302	302,315	0.034	-3.379	-	-	101	10,302	
5/3/2017	21	1,431	302,315	0.005	-5.353	-	-	21	1,431	
5/4/2017	586	87,833	302,315	0.291	-1.236	-	-	586	87,833	
5/5/2017	1,604	104,283	302,315	0.345	-1.064	-	-	1,604	104,283	
5/6/2017	106	11,952	302,315	0.040	-3.231	-	-	106	11,952	
5/7/2017	9	618	302,315	0.002	-6.193	-	-	9	618	
5/8/2017	3,121	141,131	302,315	0.467	-0.762	-	-	3,121	141,131	
5/9/2017	36	2,200	302,315	0.007	-4.923	-	-	36	2,200	
5/10/2017	2	334	302,315	0.001	-6.808	-	-	2	334	
5/11/2017	10	1,718	302,315	0.006	-5.170	-	-	10	1,718	
5/12/2017	147	11,608	302,315	0.038	-3.260	-	-	147	11,608	
5/13/2017	120	10,754	302,315	0.036	-3.336	-	-	120	10,754	
5/14/2017	30	9,229	302,315	0.031	-3.489	-	-	30	9,229	
5/15/2017	265	23,138	302,315	0.077	-2.570	-	-	265	23,138	
5/16/2017	282	46,295	302,315	0.153	-1.876	-	-	282	46,295	
5/17/2017	7,469	470,062	302,315	1.555	0.441	-	-	7,469	470,062	
5/18/2017	549	57,296	302,315	0.190	-1.663	-	-	549	57,296	
5/19/2017	2,762	48,626	302,315	0.161	-1.827	-	-	2,762	48,626	
5/20/2017	172	14,921	302,315	0.049	-3.009	-	-	172	14,921	
5/21/2017	78	7,735	302,315	0.026	-3.666	-	-	78	7,735	
5/22/2017	90	33,667	302,315	0.111	-2.195	-	-	90	33,667	
5/23/2017	72	6,710	302,315	0.022	-3.808	-	-	72	6,710	
5/24/2017	79	2,852	302,315	0.009	-4.663	-	-	79	2,852	
5/25/2017	25	2,471	302,315	0.008	-4.807	-	-	25	2,471	
5/26/2017	36	1,885	302,315	0.006	-5.078	-	-	36	1,885	
5/27/2017	33	3,284	302,315	0.011	-4.522	-	-	33	3,284	
5/28/2017	398	26,501	302,315	0.088	-2.434	-	-	398	26,501	
5/29/2017	163	26,604	302,315	0.088	-2.430	-	-	163	26,604	
5/30/2017	94	7,444	302,315	0.025	-3.704	-	-	94	7,444	
5/31/2017	404	57,486	302,315	0.190	-1.660	-	-	404	57,486	
6/1/2017	25	1,627	302,315	0.005	-5.225	-	-	25	1,627	
6/2/2017	99	7,113	302,315	0.024	-3.750	-	-	99	7,113	
6/3/2017	225	13,184	302,315	0.044	-3.132	-	-	225	13,184	
6/4/2017	2,640	314,987	302,315	1.042	0.041	-	-	2,640	314,987	
6/5/2017	97	9,105	302,315	0.030	-3.503	-	-	97	9,105	
6/6/2017	407	67,257	302,315	0.222	-1.503	-	-	407	67,257	
6/7/2017	92	11,936	302,315	0.039	-3.232	-	-	92	11,936	
6/8/2017	171	18,974	302,315	0.063	-2.768	-	-	171	18,974	
6/9/2017	163	12,590	302,315	0.042	-3.179	-	-	163	12,590	
6/10/2017	62	11,346	302,315	0.038	-3.283	-	-	62	11,346	
6/11/2017	265	38,202	302,315	0.126	-2.069	-	-	265	38,202	
6/12/2017	1,481	182,881	302,315	0.605	-0.503	-	-	1,481	182,881	
6/13/2017	1,192	160,530	302,315	0.531	-0.633	-	-	1,192	160,530	
6/14/2017	1,639	186,140	302,315	0.616	-0.485	-	-	1,639	186,140	
6/15/2017	752	44,887	302,315	0.148	-1.907	-	-	752	44,887	
6/16/2017	1,539	183,735	302,315	0.608	-0.498	-	-	1,539	183,735	
6/17/2017	333	41,861	302,315	0.138	-1.977	-	-	333	41,861	
6/18/2017	756	54,557	302,315	0.180	-1.712	-	-	756	54,557	
6/19/2017	3,068	228,421	302,315	0.756	-0.280	-	-	3,068	228,421	
6/20/2017	167	18,922	302,315	0.063	-2.771	-	-	167	18,922	
6/21/2017	970	132,414	302,315	0.438	-0.826	-	-	970	132,414	
6/22/2017	5,194	1,466,059	302,315	4.849	1.579	-	-	5,194	1,466,059	1
6/23/2017	1,194	250,046	302,315	0.827	-0.190	-	-	1,194	250,046	
6/24/2017	247	18,846	302,315	0.062	-2.775	-	-	247	18,846	
6/25/2017	922	53,979	302,315	0.179	-1.723	-	-	922	53,979	
6/26/2017	139	18,398	302,315	0.061	-2.799	-	-	139	18,398	
6/27/2017	194	19,873	302,315	0.066	-2.722	-	-	194	19,873	
6/28/2017	33	4,913	302,315	0.016	-4.120	-	-	33	4,913	
6/29/2017	154	13,868	302,315	0.046	-3.082	-	-	154	13,868	
6/30/2017	3,057	236,502	302,315	0.782	-0.246	-	-	3,057	236,502	
7/1/2017	144	22,252	302,315	0.074	-2.609	-	-	144	22,252	
7/2/2017	102	22,307	302,315	0.074	-2.607	-	-	102	22,307	
7/3/2017	2,606	166,872	302,315	0.552	-0.594	-	-	2,606	166,872	
7/4/2017	233	19,091	302,315	0.063	-2.762	-	-	233	19,091	
7/5/2017	304	19,505	302,315	0.065	-2.741	-	-	304	19,505	
7/6/2017	164	12,133	302,315	0.040	-3.216	-	-	164	12,133	
7/7/2017	2,284	232,304	302,315	0.768	-0.263	-	-	2,284	232,304	
7/8/2017	4	357	302,315	0.001	-6.741	-	-	4	357	
7/9/2017	60	5,433	302,315	0.018	-4.019	-	-	60	5,433	
7/10/2017	1,023	92,100	302,315	0.305	-1.189	-	-	1,023	92,100	
7/11/2017	426	73,297	302,315	0.242	-1.417	-	-	426	73,297	
7/12/2017	4,394	788,338	302,315	2.608	0.958	-	-	4,394	788,338	
7/13/2017	7,592	261,437	302,315	0.865	-0.145	5,683	119,343	1,909	142,094	
7/14/2017	241	25,040	302,315	0.083	-2.491	-	-	241	25,040	
7/15/2017	631	129,045	302,315	0.427	-0.851	-	-	631	129,045	
7/16/2017	195	32,909	302,315	0.109	-2.218	-	-	195	32,909	
7/17/2017	715	30,776	302,315	0.102	-2.285	560	5,600	155	25,176	
7/18/2017	231	27,490	302,315	0.091	-2.398	-	-	231	27,490	
7/19/2017	89	14,991	302,315	0.050	-3.004	-	-	89	14,991	
7/20/2017	435	40,282	302,315	0.133	-2.016	-	-	435	40,282	
7/21/2017	170	22,952	302,315	0.076	-2.578	-	-	170	22,952	
7/22/2017	232	35,044	302,315	0.116	-2.155	-	-	232	35,044	
7/23/2017	230	43,671	302,315	0.144	-1.935	-	-	230	43,671	
7/24/2017	187	65,434	302,315	0.216	-1.530	-	-	187	65,434	
7/25/2017	194	15,763	302,315	0.052	-2.954	-	-	194	15,763	
7/26/2017	72	13,488	302,315	0.045	-3.110	-	-	72	13,488	
7/27/2017	34	2,507	302,315	0.008	-4.792	-	-	34	2,507	
7/28/2017	32	3,730	302,315	0.012	-4.395	-	-	32	3,730	
7/29/2017	171	13,722	302,315	0.045	-3.092	-	-	171	13,722	
7/30/2017	34	10,287	302,315	0.034	-3.381	-	-	34	10,287	
7/31/2017	1,461	243,954	302,315	0.807	-0.214	-	-	1,461	243,954	
8/1/2017	5	428	302,315	0.001	-6.560	-	-	5	428	
8/2/2017	307	33,057	302,315	0.109	-2.213	-	-	307	33,057	
8/3/2017	361	52,151	302,315	0.173	-1.757	-	-	361	52,151	
8/4/2017	165	20,686	302,315	0.068	-2.682	-	-	165	20,686	
8/5/2017	44	5,209	302,315	0.017	-4.061	-	-	44	5,209	
8/6/2017	55	5,377	302,315	0.018	-4.029	-	-	55	5,377	
8/7/2017	186	6,172	302,315	0.020	-3.891	-	-	186	6,172	
8/8/2017	163	28,949	302,315	0.096	-2.346	-	-	163	28,949	
8/9/2017	1,161	97,896	302,315	0.324	-1.128	-	-	1,161	97,896	
8/10/2017	846	75,617	302,315	0.250	-1.386	-	-	846	75,617	
8/11/2017	110	9,289	302,315	0.031	-3.483	-	-	110	9,289	
8/12/2017	95	10,176	302,315	0.034	-3.391	-	-	95	10,176	
8/13/2017	164	20,980	302,315	0.069	-2.668	-	-	164	20,980	

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A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
8/14/2017	79	7,365	302,315	0.024	-3.715	-	-	79	7,365	
8/15/2017	117	6,563	302,315	0.022	-3.830	-	-	117	6,563	
8/16/2017	2,689	105,413	302,315	0.349	-1.054	-	-	2,689	105,413	
8/17/2017	279	40,723	302,315	0.135	-2.005	-	-	279	40,723	
8/18/2017	80	10,487	302,315	0.035	-3.361	-	-	80	10,487	
8/19/2017	1,156	154,892	302,315	0.512	-0.669	-	-	1,156	154,892	
8/20/2017	2,452	41,690	302,315	0.138	-1.981	-	-	2,452	41,690	
8/21/2017	283	28,025	302,315	0.093	-2.378	-	-	283	28,025	
8/22/2017	54	16,527	302,315	0.055	-2.906	-	-	54	16,527	
8/23/2017	98	6,890	302,315	0.023	-3.781	-	-	98	6,890	
8/24/2017	32	5,234	302,315	0.017	-4.056	-	-	32	5,234	
8/25/2017	194	27,060	302,315	0.090	-2.413	-	-	194	27,060	
8/26/2017	21	2,742	302,315	0.009	-4.703	-	-	21	2,742	
8/27/2017	54	5,212	302,315	0.017	-4.061	-	-	54	5,212	
8/28/2017	467	51,160	302,315	0.169	-1.777	-	-	467	51,160	
8/29/2017	1,489	89,939	302,315	0.298	-1.212	-	-	1,489	89,939	
8/30/2017	87	18,501	302,315	0.061	-2.794	-	-	87	18,501	
8/31/2017	3,789	133,615	302,315	0.442	-0.817	-	-	3,789	133,615	
9/1/2017	216	45,128	302,315	0.149	-1.902	-	-	216	45,128	
9/2/2017	45	4,334	302,315	0.014	-4.245	-	-	45	4,334	
9/3/2017	28	12,873	302,315	0.043	-3.156	-	-	28	12,873	
9/4/2017	7,855	2,943,355	302,315	9.736	2.276	-	-	7,855	2,943,355	1
9/5/2017	2,873	215,069	302,315	0.711	-0.341	-	-	2,873	215,069	
9/6/2017	127	10,011	302,315	0.033	-3.408	-	-	127	10,011	
9/7/2017	77	7,548	302,315	0.025	-3.690	-	-	77	7,548	
9/8/2017	109	12,895	302,315	0.043	-3.155	-	-	109	12,895	
9/9/2017	91	14,508	302,315	0.048	-3.037	-	-	91	14,508	
9/10/2017	1	79	302,315	0.000	-8.250	-	-	1	79	
9/11/2017	266	19,004	302,315	0.063	-2.767	-	-	266	19,004	
9/12/2017	99	8,431	302,315	0.028	-3.580	-	-	99	8,431	
9/13/2017	109	9,735	302,315	0.032	-3.436	-	-	109	9,735	
9/14/2017	112	7,369	302,315	0.024	-3.714	-	-	112	7,369	
9/15/2017	76	4,815	302,315	0.016	-4.140	-	-	76	4,815	
9/16/2017	1,828	154,486	302,315	0.511	-0.671	-	-	1,828	154,486	
9/17/2017	70	20,123	302,315	0.067	-2.710	-	-	70	20,123	
9/18/2017	122	30,696	302,315	0.102	-2.287	-	-	122	30,696	
9/19/2017	2,136	54,137	302,315	0.179	-1.720	-	-	2,136	54,137	
9/20/2017	534	30,706	302,315	0.102	-2.287	457	21,936	77	8,770	
9/21/2017	190	16,293	302,315	0.054	-2.921	-	-	190	16,293	
9/22/2017	48	16,174	302,315	0.054	-2.928	-	-	48	16,174	
9/23/2017	135	61,960	302,315	0.205	-1.585	-	-	135	61,960	
9/24/2017	58	17,166	302,315	0.057	-2.869	-	-	58	17,166	
9/25/2017	134	45,023	302,315	0.149	-1.904	-	-	134	45,023	
9/26/2017	1,041	108,589	302,315	0.359	-1.024	-	-	1,041	108,589	
9/27/2017	1,054	53,738	302,315	0.178	-1.727	-	-	1,054	53,738	
9/28/2017	113	11,543	302,315	0.038	-3.265	-	-	113	11,543	
9/29/2017	143	17,118	302,315	0.057	-2.871	-	-	143	17,118	
9/30/2017	111	20,943	302,315	0.069	-2.670	-	-	111	20,943	
10/1/2017	39	7,727	302,315	0.026	-3.667	-	-	39	7,727	
10/2/2017	30	1,279	302,315	0.004	-5.465	-	-	30	1,279	
10/3/2017	56	5,741	302,315	0.019	-3.964	-	-	56	5,741	
10/4/2017	609	17,287	302,315	0.057	-2.862	-	-	609	17,287	
10/5/2017	248	21,824	302,315	0.072	-2.628	-	-	248	21,824	
10/6/2017	320	59,661	302,315	0.197	-1.623	-	-	320	59,661	
10/7/2017	1,811	322,582	302,315	1.067	0.065	-	-	1,811	322,582	
10/8/2017	305	28,672	302,315	0.095	-2.356	-	-	305	28,672	
10/9/2017	1,122	85,751	302,315	0.284	-1.260	-	-	1,122	85,751	
10/10/2017	137	12,637	302,315	0.042	-3.175	-	-	137	12,637	
10/11/2017	118	8,776	302,315	0.029	-3.539	-	-	118	8,776	
10/12/2017	327	20,717	302,315	0.069	-2.681	-	-	327	20,717	
10/13/2017	2,870	591,938	302,315	1.958	0.672	2,606	559,060	264	32,878	
10/14/2017	56	7,679	302,315	0.025	-3.673	-	-	56	7,679	
10/15/2017	848	58,720	302,315	0.194	-1.639	-	-	848	58,720	
10/16/2017	86	6,205	302,315	0.021	-3.886	-	-	86	6,205	
10/17/2017	118	12,409	302,315	0.041	-3.193	-	-	118	12,409	
10/18/2017	27	2,619	302,315	0.009	-4.749	-	-	27	2,619	
10/19/2017	3,232	313,351	302,315	1.037	0.036	-	-	3,232	313,351	
10/20/2017	284	50,678	302,315	0.168	-1.786	-	-	284	50,678	
10/21/2017	71	5,959	302,315	0.020	-3.927	-	-	71	5,959	
10/22/2017	17	2,673	302,315	0.009	-4.728	-	-	17	2,673	
10/23/2017	498	44,102	302,315	0.146	-1.925	-	-	498	44,102	
10/24/2017	152	12,600	302,315	0.042	-3.178	-	-	152	12,600	
10/25/2017	33	2,687	302,315	0.009	-4.723	-	-	33	2,687	
10/26/2017	191	25,105	302,315	0.083	-2.488	-	-	191	25,105	
10/27/2017	59	8,404	302,315	0.028	-3.583	-	-	59	8,404	
10/28/2017	135	22,596	302,315	0.075	-2.594	-	-	135	22,596	
10/29/2017	29	3,913	302,315	0.013	-4.347	-	-	29	3,913	
10/30/2017	11	1,093	302,315	0.004	-5.623	-	-	11	1,093	
10/31/2017	52	4,628	302,315	0.015	-4.179	-	-	52	4,628	
11/1/2017	240	50,296	302,315	0.166	-1.794	-	-	240	50,296	
11/2/2017	3,948	364,976	302,315	1.207	0.188	-	-	3,948	364,976	
11/3/2017	81	5,224	302,315	0.017	-4.058	-	-	81	5,224	
11/4/2017	21	3,730	302,315	0.012	-4.395	-	-	21	3,730	
11/5/2017	7,842	1,407,582	302,315	4.656	1.538	2,085	156,375	5,757	1,251,207	
11/6/2017	199	15,627	302,315	0.052	-2.962	-	-	199	15,627	
11/7/2017	63	5,431	302,315	0.018	-4.019	-	-	63	5,431	
11/8/2017	188	13,173	302,315	0.044	-3.133	-	-	188	13,173	
11/9/2017	345	28,680	302,315	0.095	-2.355	-	-	345	28,680	
11/10/2017	20,459	1,289,846	302,315	4.267	1.451	20,116	1,246,959	343	42,887	
11/11/2017	16	1,689	302,315	0.006	-5.187	-	-	16	1,689	
11/12/2017	126	10,253	302,315	0.034	-3.384	-	-	126	10,253	
11/13/2017	89	5,888	302,315	0.019	-3.939	-	-	89	5,888	
11/14/2017	132	10,762	302,315	0.036	-3.335	-	-	132	10,762	
11/15/2017	58	5,028	302,315	0.017	-4.096	-	-	58	5,028	
11/16/2017	105	11,641	302,315	0.039	-3.257	-	-	105	11,641	
11/17/2017	99	5,212	302,315	0.017	-4.061	-	-	99	5,212	
11/18/2017	1,720	102,373	302,315	0.339	-1.083	-	-	1,720	102,373	
11/19/2017	69	9,270	302,315	0.031	-3.485	-	-	69	9,270	
11/20/2017	4	387	302,315	0.001	-6.661	-	-	4	387	
11/21/2017	51	6,450	302,315	0.021	-3.847	-	-	51	6,450	
11/22/2017	89	4,288	302,315	0.014	-4.256	-	-	89	4,288	
11/23/2017	93	2,905	302,315	0.010	-4.645	-	-	93	2,905	
11/24/2017	85	9,418	302,315	0.031	-3.469	-	-	85	9,418	
11/25/2017	80	4,794	302,315	0.016	-4.144	-	-	80	4,794	
11/26/2017	16	849	302,315	0.003	-5.875	-	-	16	849	
11/27/2017	129	12,306	302,315	0.041	-3.201	-	-	129	12,306	
11/28/2017	171	15,309	302,315	0.051	-2.983	-	-	171	15,309	
11/29/2017	188	16,867	302,315	0.056	-2.886	-	-	188	16,867	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
11/30/2017	1,131	11,400	302,315	0.038	-3.278	-	-	1,131	11,400	
12/1/2017	76	6,552	302,315	0.022	-3.832	-	-	76	6,552	
12/2/2017	87	7,449	302,315	0.025	-3.703	-	-	87	7,449	
12/3/2017	164	20,557	302,315	0.068	-2.688	-	-	164	20,557	
12/4/2017	44	4,128	302,315	0.014	-4.294	-	-	44	4,128	
12/5/2017	398	49,676	302,315	0.164	-1.806	-	-	398	49,676	
12/6/2017	76	3,604	302,315	0.012	-4.429	-	-	76	3,604	
12/7/2017	25	3,865	302,315	0.013	-4.360	-	-	25	3,865	
12/8/2017	501	113,167	302,315	0.374	-0.983	-	-	501	113,167	
12/9/2017	1,822	151,233	302,315	0.500	-0.693	-	-	1,822	151,233	
12/10/2017	52	5,674	302,315	0.019	-3.976	-	-	52	5,674	
12/11/2017	9	707	302,315	0.002	-6.058	-	-	9	707	
12/12/2017	7	730	302,315	0.002	-6.026	-	-	7	730	
12/13/2017	2	312	302,315	0.001	-6.876	-	-	2	312	
12/14/2017	27	1,747	302,315	0.006	-5.154	-	-	27	1,747	
12/15/2017	2	119	302,315	0.000	-7.840	-	-	2	119	
12/16/2017	2	119	302,315	0.000	-7.840	-	-	2	119	
12/17/2017	34	3,070	302,315	0.010	-4.590	-	-	34	3,070	
12/18/2017	7	482	302,315	0.002	-6.441	-	-	7	482	
12/19/2017	58	5,397	302,315	0.018	-4.026	-	-	58	5,397	
12/20/2017	2,486	152,109	302,315	0.503	-0.687	-	-	2,486	152,109	
12/21/2017	93	9,431	302,315	0.031	-3.467	-	-	93	9,431	
12/22/2017	213	22,826	302,315	0.076	-2.584	-	-	213	22,826	
12/23/2017	-	-	302,315			-	-			
12/24/2017	22	5,191	302,315	0.017	-4.065	-	-	22	5,191	
12/25/2017	321	88,529	302,315	0.293	-1.228	-	-	321	88,529	
12/26/2017	78	4,205	302,315	0.014	-4.275	-	-	78	4,205	
12/27/2017	49	8,411	302,315	0.028	-3.582	-	-	49	8,411	
12/28/2017	11	976	302,315	0.003	-5.736	-	-	11	976	
12/29/2017	18	2,925	302,315	0.010	-4.638	-	-	18	2,925	
12/30/2017	29	6,539	302,315	0.022	-3.834	-	-	29	6,539	
12/31/2017	5	516	302,315	0.002	-6.373	-	-	5	516	
1/1/2018	65	8,636	301,949	0.029	-3.554	-	-	65	8,636	
1/2/2018	173	11,365	301,949	0.038	-3.280	-	-	173	11,365	
1/3/2018	64	7,232	301,949	0.024	-3.732	-	-	64	7,232	
1/4/2018	87	10,771	301,949	0.036	-3.333	-	-	87	10,771	
1/5/2018	4	576	301,949	0.002	-6.262	-	-	4	576	
1/6/2018	1	52	301,949	0.000	-8.667	-	-	1	52	
1/7/2018	2	215	301,949	0.001	-7.247	-	-	2	215	
1/8/2018	172	21,934	301,949	0.073	-2.622	-	-	172	21,934	
1/9/2018	64	9,712	301,949	0.032	-3.437	-	-	64	9,712	
1/10/2018	219	24,581	301,949	0.081	-2.508	-	-	219	24,581	
1/11/2018	16	775	301,949	0.003	-5.965	-	-	16	775	
1/12/2018	270	29,011	301,949	0.096	-2.343	-	-	270	29,011	
1/13/2018	46	5,239	301,949	0.017	-4.054	-	-	46	5,239	
1/14/2018	15	968	301,949	0.003	-5.743	-	-	15	968	
1/15/2018	184	25,430	301,949	0.084	-2.474	-	-	184	25,430	
1/16/2018	23	3,432	301,949	0.011	-4.477	-	-	23	3,432	
1/17/2018	19	3,388	301,949	0.011	-4.490	-	-	19	3,388	
1/18/2018	255	20,047	301,949	0.066	-2.712	-	-	255	20,047	
1/19/2018	1,666	26,656	301,949	0.088	-2.427	-	-	1,666	26,656	
1/20/2018	64	3,458	301,949	0.011	-4.470	-	-	64	3,458	
1/21/2018	6	1,059	301,949	0.004	-5.653	-	-	6	1,059	
1/22/2018	5,378	151,413	301,949	0.501	-0.690	4,785	76,560	593	74,853	
1/23/2018	312	35,760	301,949	0.118	-2.133	-	-	312	35,760	
1/24/2018	99	13,299	301,949	0.044	-3.123	-	-	99	13,299	
1/25/2018	129	20,747	301,949	0.069	-2.678	-	-	129	20,747	
1/26/2018	35	2,486	301,949	0.008	-4.800	-	-	35	2,486	
1/27/2018	34	3,624	301,949	0.012	-4.423	-	-	34	3,624	
1/28/2018	52	3,093	301,949	0.010	-4.581	-	-	52	3,093	
1/29/2018	36	1,823	301,949	0.006	-5.110	-	-	36	1,823	
1/30/2018	6	735	301,949	0.002	-6.018	-	-	6	735	
1/31/2018	528	7,043	301,949	0.023	-3.758	-	-	528	7,043	
2/1/2018	2,650	155,984	301,949	0.517	-0.661	-	-	2,650	155,984	
2/2/2018	16	1,343	301,949	0.004	-5.415	-	-	16	1,343	
2/3/2018	30	3,747	301,949	0.012	-4.389	-	-	30	3,747	
2/4/2018	330	28,864	301,949	0.096	-2.348	-	-	330	28,864	
2/5/2018	5	537	301,949	0.002	-6.332	-	-	5	537	
2/6/2018	508	72,201	301,949	0.239	-1.431	-	-	508	72,201	
2/7/2018	90	13,985	301,949	0.046	-3.072	-	-	90	13,985	
2/8/2018	124	9,840	301,949	0.033	-3.424	-	-	124	9,840	
2/9/2018	43	4,188	301,949	0.014	-4.278	-	-	43	4,188	
2/10/2018	2	126	301,949	0.000	-7.782	-	-	2	126	
2/11/2018	34	2,845	301,949	0.009	-4.665	-	-	34	2,845	
2/12/2018	8	1,047	301,949	0.003	-5.664	-	-	8	1,047	
2/13/2018	3	182	301,949	0.001	-7.414	-	-	3	182	
2/14/2018	2	348	301,949	0.001	-6.766	-	-	2	348	
2/15/2018	129	23,100	301,949	0.077	-2.570	-	-	129	23,100	
2/16/2018	24	1,781	301,949	0.006	-5.133	-	-	24	1,781	
2/17/2018	1	126	301,949	0.000	-7.782	-	-	1	126	
2/18/2018	123	8,683	301,949	0.029	-3.549	-	-	123	8,683	
2/19/2018	2,687	105,326	301,949	0.349	-1.053	-	-	2,687	105,326	
2/20/2018	182	24,883	301,949	0.082	-2.496	-	-	182	24,883	
2/21/2018	98	10,713	301,949	0.035	-3.339	-	-	98	10,713	
2/22/2018	26	3,197	301,949	0.011	-4.548	-	-	26	3,197	
2/23/2018	33	2,134	301,949	0.007	-4.952	-	-	33	2,134	
2/24/2018	12	710	301,949	0.002	-6.053	-	-	12	710	
2/25/2018	823	103,677	301,949	0.343	-1.069	-	-	823	103,677	
2/26/2018	277	33,899	301,949	0.112	-2.187	-	-	277	33,899	
2/27/2018	179	21,077	301,949	0.070	-2.662	-	-	179	21,077	
2/28/2018	125	26,340	301,949	0.087	-2.439	-	-	125	26,340	
3/1/2018	1,430	252,504	301,949	0.836	-0.179	-	-	1,430	252,504	
3/2/2018	157	27,740	301,949	0.092	-2.387	-	-	157	27,740	
3/3/2018	50	8,317	301,949	0.028	-3.592	-	-	50	8,317	
3/4/2018	143	10,180	301,949	0.034	-3.390	-	-	143	10,180	
3/5/2018	222	4,439	301,949	0.015	-4.220	-	-	222	4,439	
3/6/2018	30	2,587	301,949	0.009	-4.760	-	-	30	2,587	
3/7/2018	2,243	27,457	301,949	0.091	-2.398	-	-	2,243	27,457	
3/8/2018	18	1,565	301,949	0.005	-5.262	-	-	18	1,565	
3/9/2018	13	1,808	301,949	0.006	-5.118	-	-	13	1,808	
3/10/2018	1,122	121,724	301,949	0.403	-0.909	-	-	1,122	121,724	
3/11/2018	38	2,152	301,949	0.007	-4.944	-	-	38	2,152	
3/12/2018	14	841	301,949	0.003	-5.883	-	-	14	841	
3/13/2018	136	14,224	301,949	0.047	-3.055	-	-	136	14,224	
3/14/2018	191	30,275	301,949	0.100	-2.300	-	-	191	30,275	
3/15/2018	68	7,786	301,949	0.026	-3.658	-	-	68	7,786	
3/16/2018	17	1,068	301,949	0.004	-5.644	-	-	17	1,068	
3/17/2018	14	1,090	301,949	0.004	-5.624	-	-	14	1,090	

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Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
3/18/2018	15	1,575	301,949	0.005	-5.256	-	-	15	1,575	
3/19/2018	75	19,287	301,949	0.064	-2.751	-	-	75	19,287	
3/20/2018	296	26,436	301,949	0.088	-2.436	-	-	296	26,436	
3/21/2018	14	630	301,949	0.002	-6.172	-	-	14	630	
3/22/2018	163	10,861	301,949	0.036	-3.325	-	-	163	10,861	
3/23/2018	17	629	301,949	0.002	-6.174	-	-	17	629	
3/24/2018	11	777	301,949	0.003	-5.963	-	-	11	777	
3/25/2018	15	1,470	301,949	0.005	-5.325	-	-	15	1,470	
3/26/2018	13	606	301,949	0.002	-6.211	-	-	13	606	
3/27/2018	129	7,926	301,949	0.026	-3.640	-	-	129	7,926	
3/28/2018	15	950	301,949	0.003	-5.762	-	-	15	950	
3/29/2018	469	22,415	301,949	0.074	-2.601	-	-	469	22,415	
3/30/2018	120	8,066	301,949	0.027	-3.623	-	-	120	8,066	
3/31/2018	133	9,240	301,949	0.031	-3.487	-	-	133	9,240	
4/1/2018	17	952	301,949	0.003	-5.759	-	-	17	952	
4/2/2018	35	1,710	301,949	0.006	-5.174	-	-	35	1,710	
4/3/2018	238	28,766	301,949	0.095	-2.351	-	-	238	28,766	
4/4/2018	858	122,168	301,949	0.405	-0.905	-	-	858	122,168	
4/5/2018	1,827	81,147	301,949	0.269	-1.314	-	-	1,827	81,147	
4/6/2018	1,613	188,494	301,949	0.624	-0.471	-	-	1,613	188,494	
4/7/2018	52	5,637	301,949	0.019	-3.981	-	-	52	5,637	
4/8/2018	753	134,971	301,949	0.447	-0.805	-	-	753	134,971	
4/9/2018	539	64,783	301,949	0.215	-1.539	-	-	539	64,783	
4/10/2018	397	28,165	301,949	0.093	-2.372	-	-	397	28,165	
4/11/2018	15	1,114	301,949	0.004	-5.602	-	-	15	1,114	
4/12/2018	390	46,311	301,949	0.153	-1.875	-	-	390	46,311	
4/13/2018	74	6,665	301,949	0.022	-3.813	-	-	74	6,665	
4/14/2018	187	35,835	301,949	0.119	-2.131	-	-	187	35,835	
4/15/2018	1,590	211,545	301,949	0.701	-0.356	-	-	1,590	211,545	
4/16/2018	64	6,402	301,949	0.021	-3.854	-	-	64	6,402	
4/17/2018	3	304	301,949	0.001	-6.901	-	-	3	304	
4/18/2018	142	8,245	301,949	0.027	-3.601	-	-	142	8,245	
4/19/2018	19	972	301,949	0.003	-5.739	-	-	19	972	
4/20/2018	87	5,239	301,949	0.017	-4.054	-	-	87	5,239	
4/21/2018	27	8,608	301,949	0.029	-3.558	-	-	27	8,608	
4/22/2018	17	1,377	301,949	0.005	-5.390	-	-	17	1,377	
4/23/2018	53	5,061	301,949	0.017	-4.089	-	-	53	5,061	
4/24/2018	80	4,647	301,949	0.015	-4.174	-	-	80	4,647	
4/25/2018	330	14,791	301,949	0.049	-3.016	-	-	330	14,791	
4/26/2018	8	932	301,949	0.003	-5.781	-	-	8	932	
4/27/2018	12	667	301,949	0.002	-6.115	-	-	12	667	
4/28/2018	37	4,936	301,949	0.016	-4.114	-	-	37	4,936	
4/29/2018	19	831	301,949	0.003	-5.895	-	-	19	831	
4/30/2018	26	2,679	301,949	0.009	-4.725	-	-	26	2,679	
5/1/2018	105	11,042	301,949	0.037	-3.309	-	-	105	11,042	
5/2/2018	1,155	85,981	301,949	0.285	-1.256	-	-	1,155	85,981	
5/3/2018	811	83,340	301,949	0.276	-1.287	-	-	811	83,340	
5/4/2018	6,814	593,251	301,949	1.965	0.675	-	-	6,814	593,251	
5/5/2018	207	22,789	301,949	0.075	-2.584	-	-	207	22,789	
5/6/2018	38	2,809	301,949	0.009	-4.677	-	-	38	2,809	
5/7/2018	90	9,678	301,949	0.032	-3.440	-	-	90	9,678	
5/8/2018	1,044	54,117	301,949	0.179	-1.719	-	-	1,044	54,117	
5/9/2018	316	175,319	301,949	0.581	-0.544	-	-	316	175,319	
5/10/2018	312	17,416	301,949	0.058	-2.853	-	-	312	17,416	
5/11/2018	42	8,037	301,949	0.027	-3.626	-	-	42	8,037	
5/12/2018	76	12,518	301,949	0.041	-3.183	-	-	76	12,518	
5/13/2018	262	43,890	301,949	0.145	-1.929	-	-	262	43,890	
5/14/2018	3,331	275,098	301,949	0.911	-0.093	-	-	3,331	275,098	
5/15/2018	135	13,462	301,949	0.045	-3.110	-	-	135	13,462	
5/16/2018	23	2,207	301,949	0.007	-4.919	-	-	23	2,207	
5/17/2018	1,030	38,664	301,949	0.128	-2.055	-	-	1,030	38,664	
5/18/2018	531	76,287	301,949	0.253	-1.376	-	-	531	76,287	
5/19/2018	701	45,253	301,949	0.150	-1.898	-	-	701	45,253	
5/20/2018	75	6,589	301,949	0.022	-3.825	-	-	75	6,589	
5/21/2018	82	5,576	301,949	0.018	-3.992	-	-	82	5,576	
5/22/2018	135	19,504	301,949	0.065	-2.740	-	-	135	19,504	
5/23/2018	4,062	84,863	301,949	0.281	-1.269	3,327	29,943	735	54,920	
5/24/2018	111	8,244	301,949	0.027	-3.601	-	-	111	8,244	
5/25/2018	285	26,844	301,949	0.089	-2.420	-	-	285	26,844	
5/26/2018	185	29,814	301,949	0.099	-2.315	-	-	185	29,814	
5/27/2018	5,020	497,633	301,949	1.648	0.500	4,814	452,466	206	45,167	
5/28/2018	2,324	519,421	301,949	1.720	0.542	1,820	440,418	504	79,003	
5/29/2018	939	116,287	301,949	0.385	-0.954	-	-	939	116,287	
5/30/2018	6,294	587,813	301,949	1.947	0.666	4,154	70,308	2,140	517,505	
5/31/2018	2,517	368,071	301,949	1.219	0.198	2,128	280,896	389	87,175	
6/1/2018	274	30,803	301,949	0.102	-2.283	-	-	274	30,803	
6/2/2018	88	8,514	301,949	0.028	-3.569	-	-	88	8,514	
6/3/2018	431	53,744	301,949	0.178	-1.726	-	-	431	53,744	
6/4/2018	3,959	410,681	301,949	1.360	0.308	-	-	3,959	410,681	
6/5/2018	711	41,131	301,949	0.136	-1.993	-	-	711	41,131	
6/6/2018	663	148,872	301,949	0.493	-0.707	-	-	663	148,872	
6/7/2018	374	34,124	301,949	0.113	-2.180	-	-	374	34,124	
6/8/2018	378	49,273	301,949	0.163	-1.813	-	-	378	49,273	
6/9/2018	377	44,244	301,949	0.147	-1.921	-	-	377	44,244	
6/10/2018	1,382	123,066	301,949	0.408	-0.898	-	-	1,382	123,066	
6/11/2018	233	16,724	301,949	0.055	-2.893	-	-	233	16,724	
6/12/2018	2,060	101,023	301,949	0.335	-1.095	-	-	2,060	101,023	
6/13/2018	271	20,452	301,949	0.068	-2.692	-	-	271	20,452	
6/14/2018	2,550	197,114	301,949	0.653	-0.426	-	-	2,550	197,114	
6/15/2018	255	86,900	301,949	0.288	-1.246	-	-	255	86,900	
6/16/2018	275	37,388	301,949	0.124	-2.089	-	-	275	37,388	
6/17/2018	551	88,076	301,949	0.292	-1.232	-	-	551	88,076	
6/18/2018	1,532	343,320	301,949	1.137	0.128	-	-	1,532	343,320	
6/19/2018	207	25,406	301,949	0.084	-2.475	-	-	207	25,406	
6/20/2018	103	9,663	301,949	0.032	-3.442	-	-	103	9,663	
6/21/2018	137	14,123	301,949	0.047	-3.062	-	-	137	14,123	
6/22/2018	489	59,612	301,949	0.197	-1.622	-	-	489	59,612	
6/23/2018	859	163,587	301,949	0.542	-0.613	-	-	859	163,587	
6/24/2018	283	28,943	301,949	0.096	-2.345	-	-	283	28,943	
6/25/2018	108	7,057	301,949	0.023	-3.756	-	-	108	7,057	
6/26/2018	1,225	120,222	301,949	0.398	-0.921	-	-	1,225	120,222	
6/27/2018	808	44,631	301,949	0.148	-1.912	-	-	808	44,631	
6/28/2018	207	15,049	301,949	0.050	-2.999	-	-	207	15,049	
6/29/2018	226	34,080	301,949	0.113	-2.182	-	-	226	34,080	
6/30/2018	282	39,608	301,949	0.131	-2.031	-	-	282	39,608	
7/1/2018	379	54,787	301,949	0.181	-1.707	-	-	379	54,787	
7/2/2018	694	142,723	301,949	0.473	-0.749	-	-	694	142,723	
7/3/2018	50	4,345	301,949	0.014	-4.241	-	-	50	4,345	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
7/4/2018	106	20,544	301,949	0.068	-2.688	-	-	106	20,544	
7/5/2018	292	46,118	301,949	0.153	-1.879	-	-	292	46,118	
7/6/2018	1,456	64,971	301,949	0.215	-1.536	-	-	1,456	64,971	
7/7/2018	1,112	116,366	301,949	0.385	-0.954	1,076	111,580	36	4,786	
7/8/2018	244	22,726	301,949	0.075	-2.587	-	-	244	22,726	
7/9/2018	197	33,835	301,949	0.112	-2.189	-	-	197	33,835	
7/10/2018	71	12,655	301,949	0.042	-3.172	-	-	71	12,655	
7/11/2018	460	55,514	301,949	0.184	-1.694	-	-	460	55,514	
7/12/2018	402	21,586	301,949	0.071	-2.638	-	-	402	21,586	
7/13/2018	40	2,403	301,949	0.008	-4.834	-	-	40	2,403	
7/14/2018	1,100	22,407	301,949	0.074	-2.601	-	-	1,100	22,407	
7/15/2018	1,145	169,847	301,949	0.563	-0.575	-	-	1,145	169,847	
7/16/2018	280	22,759	301,949	0.075	-2.585	-	-	280	22,759	
7/17/2018	128	17,974	301,949	0.060	-2.821	-	-	128	17,974	
7/18/2018	145	10,624	301,949	0.035	-3.347	-	-	145	10,624	
7/19/2018	228	21,464	301,949	0.071	-2.644	-	-	228	21,464	
7/20/2018	144	17,915	301,949	0.059	-2.825	-	-	144	17,915	
7/21/2018	273	33,254	301,949	0.110	-2.206	-	-	273	33,254	
7/22/2018	217	18,541	301,949	0.061	-2.790	-	-	217	18,541	
7/23/2018	1,322	176,733	301,949	0.585	-0.536	-	-	1,322	176,733	
7/24/2018	415	37,710	301,949	0.125	-2.080	-	-	415	37,710	
7/25/2018	39	2,998	301,949	0.010	-4.612	-	-	39	2,998	
7/26/2018	420	55,801	301,949	0.185	-1.688	-	-	420	55,801	
7/27/2018	78	4,702	301,949	0.016	-4.162	-	-	78	4,702	
7/28/2018	44	3,386	301,949	0.011	-4.491	-	-	44	3,386	
7/29/2018	58	5,717	301,949	0.019	-3.967	-	-	58	5,717	
7/30/2018	118	9,328	301,949	0.031	-3.477	-	-	118	9,328	
7/31/2018	589	135,841	301,949	0.450	-0.799	-	-	589	135,841	
8/1/2018	223	20,305	301,949	0.067	-2.699	-	-	223	20,305	
8/2/2018	251	27,321	301,949	0.090	-2.403	-	-	251	27,321	
8/3/2018	169	17,998	301,949	0.060	-2.820	-	-	169	17,998	
8/4/2018	75	11,209	301,949	0.037	-3.294	-	-	75	11,209	
8/5/2018	54	7,310	301,949	0.024	-3.721	-	-	54	7,310	
8/6/2018	6,784	1,010,831	301,949	3.348	1.208	-	-	6,784	1,010,831	
8/7/2018	237	43,980	301,949	0.146	-1.927	-	-	237	43,980	
8/8/2018	483	39,323	301,949	0.130	-2.038	-	-	483	39,323	
8/9/2018	368	60,867	301,949	0.202	-1.602	-	-	368	60,867	
8/10/2018	276	43,994	301,949	0.146	-1.926	-	-	276	43,994	
8/11/2018	159	37,676	301,949	0.125	-2.081	-	-	159	37,676	
8/12/2018	54	4,433	301,949	0.015	-4.221	-	-	54	4,433	
8/13/2018	33	2,733	301,949	0.009	-4.705	-	-	33	2,733	
8/14/2018	88	18,794	301,949	0.062	-2.777	-	-	88	18,794	
8/15/2018	218	27,787	301,949	0.092	-2.386	-	-	218	27,787	
8/16/2018	292	41,378	301,949	0.137	-1.988	-	-	292	41,378	
8/17/2018	632	110,272	301,949	0.365	-1.007	-	-	632	110,272	
8/18/2018	288	42,839	301,949	0.142	-1.953	-	-	288	42,839	
8/19/2018	177	15,953	301,949	0.053	-2.941	-	-	177	15,953	
8/20/2018	1,235	22,836	301,949	0.076	-2.582	-	-	1,235	22,836	
8/21/2018	204	19,060	301,949	0.063	-2.763	-	-	204	19,060	
8/22/2018	654	30,210	301,949	0.100	-2.302	-	-	654	30,210	
8/23/2018	2,178	172,488	301,949	0.571	-0.560	-	-	2,178	172,488	
8/24/2018	153	14,160	301,949	0.047	-3.060	-	-	153	14,160	
8/25/2018	294	41,754	301,949	0.138	-1.978	-	-	294	41,754	
8/26/2018	170	24,821	301,949	0.082	-2.499	-	-	170	24,821	
8/27/2018	193	45,414	301,949	0.150	-1.894	-	-	193	45,414	
8/28/2018	228	31,198	301,949	0.103	-2.270	-	-	228	31,198	
8/29/2018	36	7,660	301,949	0.025	-3.674	-	-	36	7,660	
8/30/2018	36	2,990	301,949	0.010	-4.615	-	-	36	2,990	
8/31/2018	19	1,708	301,949	0.006	-5.175	-	-	19	1,708	
9/1/2018	34	2,362	301,949	0.008	-4.851	-	-	34	2,362	
9/2/2018	66	10,248	301,949	0.034	-3.383	-	-	66	10,248	
9/3/2018	1,984	214,577	301,949	0.711	-0.342	-	-	1,984	214,577	
9/4/2018	213	35,072	301,949	0.116	-2.153	-	-	213	35,072	
9/5/2018	881	97,422	301,949	0.323	-1.131	-	-	881	97,422	
9/6/2018	1,233	123,694	301,949	0.410	-0.892	-	-	1,233	123,694	
9/7/2018	181	15,360	301,949	0.051	-2.978	-	-	181	15,360	
9/8/2018	2,105	203,549	301,949	0.674	-0.394	-	-	2,105	203,549	
9/9/2018	742	136,970	301,949	0.454	-0.790	-	-	742	136,970	
9/10/2018	2,220	153,217	301,949	0.507	-0.678	-	-	2,220	153,217	
9/11/2018	412	24,916	301,949	0.083	-2.495	-	-	412	24,916	
9/12/2018	96	8,685	301,949	0.029	-3.549	-	-	96	8,685	
9/13/2018	182	20,782	301,949	0.069	-2.676	-	-	182	20,782	
9/14/2018	42	4,038	301,949	0.013	-4.315	-	-	42	4,038	
9/15/2018	33	6,089	301,949	0.020	-3.904	-	-	33	6,089	
9/16/2018	33	4,107	301,949	0.014	-4.298	-	-	33	4,107	
9/17/2018	59	8,515	301,949	0.028	-3.568	-	-	59	8,515	
9/18/2018	75	12,327	301,949	0.041	-3.198	-	-	75	12,327	
9/19/2018	1,252	29,864	301,949	0.099	-2.314	-	-	1,252	29,864	
9/20/2018	1,274	100,123	301,949	0.332	-1.104	-	-	1,274	100,123	
9/21/2018	894	100,377	301,949	0.332	-1.101	-	-	894	100,377	
9/22/2018	51	5,231	301,949	0.017	-4.056	-	-	51	5,231	
9/23/2018	39	5,056	301,949	0.017	-4.090	-	-	39	5,056	
9/24/2018	247	27,014	301,949	0.089	-2.414	-	-	247	27,014	
9/25/2018	1,129	94,385	301,949	0.313	-1.163	-	-	1,129	94,385	
9/26/2018	118	15,345	301,949	0.051	-2.979	-	-	118	15,345	
9/27/2018	42	6,250	301,949	0.021	-3.878	-	-	42	6,250	
9/28/2018	24	2,890	301,949	0.010	-4.649	-	-	24	2,890	
9/29/2018	209	13,893	301,949	0.046	-3.079	-	-	209	13,893	
9/30/2018	263	62,649	301,949	0.207	-1.573	-	-	263	62,649	
10/1/2018	291	19,625	301,949	0.065	-2.733	-	-	291	19,625	
10/2/2018	117	8,013	301,949	0.027	-3.629	-	-	117	8,013	
10/3/2018	146	49,073	301,949	0.163	-1.817	-	-	146	49,073	
10/4/2018	305	55,787	301,949	0.185	-1.689	-	-	305	55,787	
10/5/2018	76	19,337	301,949	0.064	-2.748	-	-	76	19,337	
10/6/2018	307	34,175	301,949	0.113	-2.179	-	-	307	34,175	
10/7/2018	116	15,467	301,949	0.051	-2.972	-	-	116	15,467	
10/8/2018	107	19,161	301,949	0.063	-2.757	-	-	107	19,161	
10/9/2018	2,582	21,726	301,949	0.072	-2.632	-	-	2,582	21,726	
10/10/2018	1,139	232,685	301,949	0.771	-0.261	-	-	1,139	232,685	
10/11/2018	176	11,294	301,949	0.037	-3.286	-	-	176	11,294	
10/12/2018	267	28,073	301,949	0.093	-2.375	-	-	267	28,073	
10/13/2018	768	147,489	301,949	0.488	-0.717	-	-	768	147,489	
10/14/2018	267	9,884	301,949	0.033	-3.419	-	-	267	9,884	
10/15/2018	80	7,317	301,949	0.024	-3.720	-	-	80	7,317	
10/16/2018	104	9,754	301,949	0.032	-3.433	-	-	104	9,754	
10/17/2018	264	28,632	301,949	0.095	-2.356	-	-	264	28,632	
10/18/2018	49	8,223	301,949	0.027	-3.603	-	-	49	8,223	
10/19/2018	56	3,739	301,949	0.012	-4.391	-	-	56	3,739	

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Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
10/20/2018	8,203	1,939,117	301,949	6.422	1.860	-	-	8,203	1,939,117	1
10/21/2018	399	53,540	301,949	0.177	-1.730	-	-	399	53,540	
10/22/2018	133	6,534	301,949	0.022	-3.833	-	-	133	6,534	
10/23/2018	100	8,529	301,949	0.028	-3.567	-	-	100	8,529	
10/24/2018	63	5,114	301,949	0.017	-4.078	-	-	63	5,114	
10/25/2018	263	31,537	301,949	0.104	-2.259	-	-	263	31,537	
10/26/2018	56	7,579	301,949	0.025	-3.685	-	-	56	7,579	
10/27/2018	314	28,948	301,949	0.096	-2.345	-	-	314	28,948	
10/28/2018	221	39,338	301,949	0.130	-2.038	-	-	221	39,338	
10/29/2018	87	10,381	301,949	0.034	-3.370	-	-	87	10,381	
10/30/2018	105	9,831	301,949	0.033	-3.425	-	-	105	9,831	
10/31/2018	448	30,486	301,949	0.101	-2.293	-	-	448	30,486	
11/1/2018	82	13,850	301,949	0.046	-3.082	-	-	82	13,850	
11/2/2018	93	12,523	301,949	0.041	-3.183	-	-	93	12,523	
11/3/2018	30	1,635	301,949	0.005	-5.219	-	-	30	1,635	
11/4/2018	57	3,894	301,949	0.013	-4.351	-	-	57	3,894	
11/5/2018	100	8,415	301,949	0.028	-3.580	-	-	100	8,415	
11/6/2018	1,602	189,662	301,949	0.628	-0.465	-	-	1,602	189,662	
11/7/2018	144	20,989	301,949	0.070	-2.666	-	-	144	20,989	
11/8/2018	78	1,316	301,949	0.004	-5.436	-	-	78	1,316	
11/9/2018	313	50,394	301,949	0.167	-1.790	-	-	313	50,394	
11/10/2018	298	26,252	301,949	0.087	-2.443	-	-	298	26,252	
11/11/2018	16	948	301,949	0.003	-5.764	-	-	16	948	
11/12/2018	65	7,760	301,949	0.026	-3.661	-	-	65	7,760	
11/13/2018	60	3,709	301,949	0.012	-4.399	-	-	60	3,709	
11/14/2018	66	4,502	301,949	0.015	-4.206	-	-	66	4,502	
11/15/2018	112	12,080	301,949	0.040	-3.219	-	-	112	12,080	
11/16/2018	878	37,646	301,949	0.125	-2.082	-	-	878	37,646	
11/17/2018	139	8,872	301,949	0.029	-3.527	-	-	139	8,872	
11/18/2018	87	11,210	301,949	0.037	-3.293	-	-	87	11,210	
11/19/2018	129	10,581	301,949	0.035	-3.351	-	-	129	10,581	
11/20/2018	6,361	511,350	301,949	1.693	0.527	-	-	6,361	511,350	
11/21/2018	41	2,782	301,949	0.009	-4.687	-	-	41	2,782	
11/22/2018	2	399	301,949	0.001	-6.629	-	-	2	399	
11/23/2018	16	677	301,949	0.002	-6.100	-	-	16	677	
11/24/2018	650	25,298	301,949	0.084	-2.480	-	-	650	25,298	
11/25/2018	102	6,392	301,949	0.021	-3.855	-	-	102	6,392	
11/26/2018	2,550	219,662	301,949	0.727	-0.318	-	-	2,550	219,662	
11/27/2018	312	14,829	301,949	0.049	-3.014	-	-	312	14,829	
11/28/2018	324	32,097	301,949	0.106	-2.241	-	-	324	32,097	
11/29/2018	72	6,906	301,949	0.023	-3.778	-	-	72	6,906	
11/30/2018	56	3,059	301,949	0.010	-4.592	-	-	56	3,059	
12/1/2018	145	20,799	301,949	0.069	-2.675	-	-	145	20,799	
12/2/2018	983	109,423	301,949	0.362	-1.015	-	-	983	109,423	
12/3/2018	95	2,219	301,949	0.007	-4.913	-	-	95	2,219	
12/4/2018	39	2,495	301,949	0.008	-4.796	-	-	39	2,495	
12/5/2018	34	2,627	301,949	0.009	-4.744	-	-	34	2,627	
12/6/2018	22	2,416	301,949	0.008	-4.828	-	-	22	2,416	
12/7/2018	8	1,053	301,949	0.003	-5.659	-	-	8	1,053	
12/8/2018	1,241	121,131	301,949	0.401	-0.913	-	-	1,241	121,131	
12/9/2018	239	21,669	301,949	0.072	-2.634	-	-	239	21,669	
12/10/2018	3	228	301,949	0.001	-7.189	-	-	3	228	
12/11/2018	1	143	301,949	0.000	-7.655	-	-	1	143	
12/12/2018	26	3,013	301,949	0.010	-4.607	-	-	26	3,013	
12/13/2018	217	23,109	301,949	0.077	-2.570	-	-	217	23,109	
12/14/2018	251	5,995	301,949	0.020	-3.919	-	-	251	5,995	
12/15/2018	10	862	301,949	0.003	-5.859	-	-	10	862	
12/16/2018	16	5,646	301,949	0.019	-3.979	-	-	16	5,646	
12/17/2018	56	2,885	301,949	0.010	-4.651	-	-	56	2,885	
12/18/2018	70	6,319	301,949	0.021	-3.867	-	-	70	6,319	
12/19/2018	15	817	301,949	0.003	-5.912	-	-	15	817	
12/20/2018	1,034	35,932	301,949	0.119	-2.129	-	-	1,034	35,932	
12/21/2018	90	6,540	301,949	0.022	-3.832	-	-	90	6,540	
12/22/2018	26	6,874	301,949	0.023	-3.783	-	-	26	6,874	
12/23/2018	1,253	201,283	301,949	0.667	-0.406	-	-	1,253	201,283	
12/24/2018	14	1,156	301,949	0.004	-5.565	-	-	14	1,156	
12/25/2018	17	872	301,949	0.003	-5.847	-	-	17	872	
12/26/2018	21	1,464	301,949	0.005	-5.329	-	-	21	1,464	
12/27/2018	143	37,601	301,949	0.125	-2.083	-	-	143	37,601	
12/28/2018	122	9,798	301,949	0.032	-3.428	-	-	122	9,798	
12/29/2018	73	5,645	301,949	0.019	-3.979	-	-	73	5,645	
12/30/2018	8	1,960	301,949	0.006	-5.037	-	-	8	1,960	
12/31/2018	242	64,133	301,949	0.212	-1.549	-	-	242	64,133	
1/1/2019	2,375	61,346	302,870	0.203	-1.597	-	-	2,375	61,346	
1/2/2019	2	174	302,870	0.001	-7.462	-	-	2	174	
1/3/2019	12	3,841	302,870	0.013	-4.368	-	-	12	3,841	
1/4/2019	19	1,692	302,870	0.006	-5.187	-	-	19	1,692	
1/5/2019	35	2,646	302,870	0.009	-4.740	-	-	35	2,646	
1/6/2019	35	2,048	302,870	0.007	-4.996	-	-	35	2,048	
1/7/2019	11	961	302,870	0.003	-5.753	-	-	11	961	
1/8/2019	1,130	107,059	302,870	0.353	-1.040	-	-	1,130	107,059	
1/9/2019	37	5,164	302,870	0.017	-4.072	-	-	37	5,164	
1/10/2019	36	4,689	302,870	0.015	-4.168	-	-	36	4,689	
1/11/2019	2,107	128,730	302,870	0.425	-0.856	-	-	2,107	128,730	
1/12/2019	234	41,077	302,870	0.136	-1.998	-	-	234	41,077	
1/13/2019	42	6,059	302,870	0.020	-3.912	-	-	42	6,059	
1/14/2019	20	954	302,870	0.003	-5.760	-	-	20	954	
1/15/2019	3	387	302,870	0.001	-6.663	-	-	3	387	
1/16/2019	3	334	302,870	0.001	-6.810	-	-	3	334	
1/17/2019	20	1,132	302,870	0.004	-5.589	-	-	20	1,132	
1/18/2019	4	324	302,870	0.001	-6.840	-	-	4	324	
1/19/2019	20	3,374	302,870	0.011	-4.497	-	-	20	3,374	
1/20/2019	4	464	302,870	0.002	-6.481	-	-	4	464	
1/21/2019	39	3,362	302,870	0.011	-4.501	-	-	39	3,362	
1/22/2019	9	794	302,870	0.003	-5.944	-	-	9	794	
1/23/2019	197	19,765	302,870	0.065	-2.729	-	-	197	19,765	
1/24/2019	176	3,861	302,870	0.013	-4.362	-	-	176	3,861	
1/25/2019	54	6,167	302,870	0.020	-3.894	-	-	54	6,167	
1/26/2019	20	1,733	302,870	0.006	-5.163	-	-	20	1,733	
1/27/2019	8	788	302,870	0.003	-5.952	-	-	8	788	
1/28/2019	1,255	109,548	302,870	0.362	-1.017	1,079	88,297	176	21,251	
1/29/2019	35	4,582	302,870	0.015	-4.191	-	-	35	4,582	
1/30/2019	240	26,604	302,870	0.088	-2.432	-	-	240	26,604	
1/31/2019	40	9,217	302,870	0.030	-3.492	-	-	40	9,217	
2/1/2019	255	7,044	302,870	0.023	-3.761	-	-	255	7,044	
2/2/2019	404	20,813	302,870	0.069	-2.678	-	-	404	20,813	
2/3/2019	72	10,148	302,870	0.034	-3.396	-	-	72	10,148	
2/4/2019	281	15,854	302,870	0.052	-2.950	-	-	281	15,854	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
2/5/2019	23	4,094	302,870	0.014	-4.304	-	-	23	4,094	
2/6/2019	1,114	96,348	302,870	0.318	-1.145	-	-	1,114	96,348	
2/7/2019	2,062	200,237	302,870	0.661	-0.414	-	-	2,062	200,237	
2/8/2019	339	79,885	302,870	0.264	-1.333	-	-	339	79,885	
2/9/2019	44	5,201	302,870	0.017	-4.064	-	-	44	5,201	
2/10/2019	28	2,750	302,870	0.009	-4.702	-	-	28	2,750	
2/11/2019	53	18,484	302,870	0.061	-2.796	-	-	53	18,484	
2/12/2019	33,870	13,720,329	302,870	45.301	3.813	4,984	76,172	28,886	13,644,157	1
2/13/2019	244	68,258	302,870	0.225	-1.490	-	-	244	68,258	
2/14/2019	64	6,735	302,870	0.022	-3.806	-	-	64	6,735	
2/15/2019	85	10,814	302,870	0.036	-3.332	-	-	85	10,814	
2/16/2019	13	1,304	302,870	0.004	-5.448	-	-	13	1,304	
2/17/2019	4	773	302,870	0.003	-5.971	-	-	4	773	
2/18/2019	30	5,071	302,870	0.017	-4.090	-	-	30	5,071	
2/19/2019	35	5,132	302,870	0.017	-4.078	-	-	35	5,132	
2/20/2019	46	3,629	302,870	0.012	-4.424	-	-	46	3,629	
2/21/2019	85	9,280	302,870	0.031	-3.485	-	-	85	9,280	
2/22/2019	16	852	302,870	0.003	-5.873	-	-	16	852	
2/23/2019	64	2,029	302,870	0.007	-5.006	-	-	64	2,029	
2/24/2019	13,363	2,190,298	302,870	7.232	1.978	-	-	13,363	2,190,298	1
2/25/2019	478	47,562	302,870	0.157	-1.851	-	-	478	47,562	
2/26/2019	351	30,938	302,870	0.102	-2.281	-	-	351	30,938	
2/27/2019	55	4,137	302,870	0.014	-4.293	-	-	55	4,137	
2/28/2019	27	5,761	302,870	0.019	-3.962	-	-	27	5,761	
3/1/2019	48	1,631	302,870	0.005	-5.224	-	-	48	1,631	
3/2/2019	3,448	370,529	302,870	1.223	0.202	-	-	3,448	370,529	
3/3/2019	3	190	302,870	0.001	-7.374	-	-	3	190	
3/4/2019	139	11,985	302,870	0.040	-3.230	-	-	139	11,985	
3/5/2019	1,748	46,562	302,870	0.154	-1.873	-	-	1,748	46,562	
3/6/2019	53	7,249	302,870	0.024	-3.732	-	-	53	7,249	
3/7/2019	6	491	302,870	0.002	-6.425	-	-	6	491	
3/8/2019	36	2,984	302,870	0.010	-4.620	-	-	36	2,984	
3/9/2019	636	65,431	302,870	0.216	-1.532	-	-	636	65,431	
3/10/2019	3,017	541,523	302,870	1.788	0.581	-	-	3,017	541,523	
3/11/2019	2,582	231,483	302,870	0.764	-0.269	-	-	2,582	231,483	
3/12/2019	875	18,756	302,870	0.062	-2.782	-	-	875	18,756	
3/13/2019	138	31,620	302,870	0.104	-2.260	-	-	138	31,620	
3/14/2019	553	44,178	302,870	0.146	-1.925	-	-	553	44,178	
3/15/2019	2,545	34,708	302,870	0.115	-2.166	-	-	2,545	34,708	
3/16/2019	4	281	302,870	0.001	-6.983	-	-	4	281	
3/17/2019	373	24,879	302,870	0.082	-2.499	-	-	373	24,879	
3/18/2019	175	31,870	302,870	0.105	-2.252	-	-	175	31,870	
3/19/2019	34	3,888	302,870	0.013	-4.355	-	-	34	3,888	
3/20/2019	617	66,308	302,870	0.219	-1.519	-	-	617	66,308	
3/21/2019	598	50,529	302,870	0.167	-1.791	-	-	598	50,529	
3/22/2019	73	7,310	302,870	0.024	-3.724	-	-	73	7,310	
3/23/2019	109	11,915	302,870	0.039	-3.236	-	-	109	11,915	
3/24/2019	227	78,230	302,870	0.258	-1.354	-	-	227	78,230	
3/25/2019	70	11,975	302,870	0.040	-3.230	-	-	70	11,975	
3/26/2019	37	2,449	302,870	0.008	-4.818	-	-	37	2,449	
3/27/2019	5	208	302,870	0.001	-7.284	-	-	5	208	
3/28/2019	565	55,888	302,870	0.185	-1.690	-	-	565	55,888	
3/29/2019	1,072	191,443	302,870	0.632	-0.459	-	-	1,072	191,443	
3/30/2019	215	31,532	302,870	0.104	-2.262	-	-	215	31,532	
3/31/2019	2,485	121,704	302,870	0.402	-0.912	-	-	2,485	121,704	
4/1/2019	865	29,428	302,870	0.097	-2.331	-	-	865	29,428	
4/2/2019	3,266	22,284	302,870	0.074	-2.609	-	-	3,266	22,284	
4/3/2019	22	2,143	302,870	0.007	-4.951	-	-	22	2,143	
4/4/2019	510	66,949	302,870	0.221	-1.509	-	-	510	66,949	
4/5/2019	46	11,576	302,870	0.038	-3.264	-	-	46	11,576	
4/6/2019	11	528	302,870	0.002	-6.352	-	-	11	528	
4/7/2019	29	2,629	302,870	0.009	-4.747	-	-	29	2,629	
4/8/2019	10	462	302,870	0.002	-6.485	-	-	10	462	
4/9/2019	38	6,075	302,870	0.020	-3.909	-	-	38	6,075	
4/10/2019	34	6,386	302,870	0.021	-3.859	-	-	34	6,386	
4/11/2019	58	9,007	302,870	0.030	-3.515	-	-	58	9,007	
4/12/2019	163	28,355	302,870	0.094	-2.369	-	-	163	28,355	
4/13/2019	86	12,548	302,870	0.041	-3.184	-	-	86	12,548	
4/14/2019	167	21,142	302,870	0.070	-2.662	-	-	167	21,142	
4/15/2019	167	30,713	302,870	0.101	-2.289	-	-	167	30,713	
4/16/2019	3,223	232,589	302,870	0.768	-0.264	-	-	3,223	232,589	
4/17/2019	355	55,928	302,870	0.185	-1.689	-	-	355	55,928	
4/18/2019	110	7,117	302,870	0.023	-3.751	-	-	110	7,117	
4/19/2019	41	3,245	302,870	0.011	-4.536	-	-	41	3,245	
4/20/2019	174	24,414	302,870	0.081	-2.518	-	-	174	24,414	
4/21/2019	100	16,296	302,870	0.054	-2.922	-	-	100	16,296	
4/22/2019	49	4,117	302,870	0.014	-4.298	-	-	49	4,117	
4/23/2019	99	8,315	302,870	0.027	-3.595	-	-	99	8,315	
4/24/2019	3	485	302,870	0.002	-6.437	-	-	3	485	
4/25/2019	78	6,740	302,870	0.022	-3.805	-	-	78	6,740	
4/26/2019	1,407	360,864	302,870	1.191	0.175	-	-	1,407	360,864	
4/27/2019	73	6,745	302,870	0.022	-3.805	-	-	73	6,745	
4/28/2019	118	17,068	302,870	0.056	-2.876	-	-	118	17,068	
4/29/2019	12	1,337	302,870	0.004	-5.423	-	-	12	1,337	
4/30/2019	582	57,901	302,870	0.191	-1.655	-	-	582	57,901	
5/1/2019	48	4,273	302,870	0.014	-4.261	-	-	48	4,273	
5/2/2019	18	1,439	302,870	0.005	-5.349	-	-	18	1,439	
5/3/2019	41	9,405	302,870	0.031	-3.472	-	-	41	9,405	
5/4/2019	55	5,182	302,870	0.017	-4.068	-	-	55	5,182	
5/5/2019	121	6,243	302,870	0.021	-3.882	-	-	121	6,243	
5/6/2019	142	21,591	302,870	0.071	-2.641	-	-	142	21,591	
5/7/2019	72	3,884	302,870	0.013	-4.356	-	-	72	3,884	
5/8/2019	1,339	29,498	302,870	0.097	-2.329	-	-	1,339	29,498	
5/9/2019	64	9,081	302,870	0.030	-3.507	-	-	64	9,081	
5/10/2019	202	23,144	302,870	0.076	-2.572	-	-	202	23,144	
5/11/2019	63	3,991	302,870	0.013	-4.329	-	-	63	3,991	
5/12/2019	52	4,460	302,870	0.015	-4.218	-	-	52	4,460	
5/13/2019	960	90,586	302,870	0.299	-1.207	-	-	960	90,586	
5/14/2019	59	5,820	302,870	0.019	-3.952	-	-	59	5,820	
5/15/2019	98	12,136	302,870	0.040	-3.217	-	-	98	12,136	
5/16/2019	722	13,890	302,870	0.046	-3.082	-	-	722	13,890	
5/17/2019	108	9,376	302,870	0.031	-3.475	-	-	108	9,376	
5/18/2019	83	8,022	302,870	0.026	-3.631	-	-	83	8,022	
5/19/2019	7,386	812,775	302,870	2.684	0.987	-	-	7,386	812,775	
5/20/2019	479	27,172	302,870	0.090	-2.411	-	-	479	27,172	
5/21/2019	33	7,895	302,870	0.026	-3.647	-	-	33	7,895	
5/22/2019	1,044	36,407	302,870	0.120	-2.119	-	-	1,044	36,407	
5/23/2019	3,165	579,370	302,870	1.913	0.649	-	-	3,165	579,370	

YEAR	Alpha	Beta	TMED NEW RULE
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Major Event Day Thresholds ("TMED") Calculations - TE

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Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
5/24/2019	321	34,367	302,870	0.113	-2.176	-	-	321	34,367	
5/25/2019	205	25,685	302,870	0.085	-2.467	-	-	205	25,685	
5/26/2019	243	31,990	302,870	0.106	-2.248	-	-	243	31,990	
5/27/2019	354	34,715	302,870	0.115	-2.166	-	-	354	34,715	
5/28/2019	1,104	170,054	302,870	0.561	-0.577	-	-	1,104	170,054	
5/29/2019	301	37,756	302,870	0.125	-2.082	-	-	301	37,756	
5/30/2019	1,619	161,855	302,870	0.534	-0.627	-	-	1,619	161,855	
5/31/2019	242	21,485	302,870	0.071	-2.646	-	-	242	21,485	
6/1/2019	1,764	340,463	302,870	1.124	0.117	-	-	1,764	340,463	
6/2/2019	2,760	158,441	302,870	0.523	-0.648	-	-	2,760	158,441	
6/3/2019	141	12,804	302,870	0.042	-3.164	-	-	141	12,804	
6/4/2019	431	45,960	302,870	0.152	-1.886	-	-	431	45,960	
6/5/2019	767	42,625	302,870	0.141	-1.961	-	-	767	42,625	
6/6/2019	4,994	1,389,411	302,870	4.587	1.523	4,810	1,368,325	184	21,086	1
6/7/2019	143	14,413	302,870	0.048	-3.045	-	-	143	14,413	
6/8/2019	209	51,310	302,870	0.169	-1.775	-	-	209	51,310	
6/9/2019	1,091	58,427	302,870	0.193	-1.646	-	-	1,091	58,427	
6/10/2019	259	44,819	302,870	0.148	-1.911	-	-	259	44,819	
6/11/2019	707	63,387	302,870	0.209	-1.564	-	-	707	63,387	
6/12/2019	199	38,683	302,870	0.128	-2.058	-	-	199	38,683	
6/13/2019	67	5,954	302,870	0.020	-3.929	-	-	67	5,954	
6/14/2019	141	22,004	302,870	0.073	-2.622	-	-	141	22,004	
6/15/2019	91	7,763	302,870	0.026	-3.664	-	-	91	7,763	
6/16/2019	288	34,115	302,870	0.113	-2.184	-	-	288	34,115	
6/17/2019	75	3,770	302,870	0.012	-4.386	-	-	75	3,770	
6/18/2019	1,278	61,645	302,870	0.204	-1.592	-	-	1,278	61,645	
6/19/2019	198	35,952	302,870	0.119	-2.131	-	-	198	35,952	
6/20/2019	2,872	294,563	302,870	0.973	-0.028	-	-	2,872	294,563	
6/21/2019	203	114,852	302,870	0.379	-0.970	-	-	203	114,852	
6/22/2019	74	7,211	302,870	0.024	-3.738	-	-	74	7,211	
6/23/2019	27	1,960	302,870	0.006	-5.040	-	-	27	1,960	
6/24/2019	459	61,886	302,870	0.204	-1.588	-	-	459	61,886	
6/25/2019	418	339,457	302,870	1.121	0.114	-	-	418	339,457	
6/26/2019	172	32,173	302,870	0.106	-2.242	-	-	172	32,173	
6/27/2019	2,928	269,651	302,870	0.890	-0.116	-	-	2,928	269,651	
6/28/2019	101	12,472	302,870	0.041	-3.190	-	-	101	12,472	
6/29/2019	234	24,294	302,870	0.080	-2.523	-	-	234	24,294	
6/30/2019	415	66,756	302,870	0.220	-1.512	-	-	415	66,756	
7/1/2019	387	84,907	302,870	0.280	-1.272	-	-	387	84,907	
7/2/2019	6,791	1,587,969	302,870	5.243	1.657	3,819	51,328	2,972	1,536,641	1
7/3/2019	665	54,714	302,870	0.181	-1.711	-	-	665	54,714	
7/4/2019	1,155	113,208	302,870	0.374	-0.984	-	-	1,155	113,208	
7/5/2019	3,152	433,131	302,870	1.430	0.358	-	-	3,152	433,131	
7/6/2019	1,630	249,991	302,870	0.825	-0.192	-	-	1,630	249,991	
7/7/2019	976	179,615	302,870	0.593	-0.522	-	-	976	179,615	
7/8/2019	135	19,868	302,870	0.066	-2.724	-	-	135	19,868	
7/9/2019	163	22,979	302,870	0.076	-2.579	-	-	163	22,979	
7/10/2019	654	91,562	302,870	0.302	-1.196	-	-	654	91,562	
7/11/2019	115	14,369	302,870	0.047	-3.048	-	-	115	14,369	
7/12/2019	36	2,355	302,870	0.008	-4.857	-	-	36	2,355	
7/13/2019	87	8,336	302,870	0.028	-3.593	-	-	87	8,336	
7/14/2019	356	69,216	302,870	0.229	-1.476	-	-	356	69,216	
7/15/2019	5,883	1,041,227	302,870	3.438	1.235	-	-	5,883	1,041,227	
7/16/2019	650	83,315	302,870	0.275	-1.291	-	-	650	83,315	
7/17/2019	1,465	94,132	302,870	0.311	-1.169	-	-	1,465	94,132	
7/18/2019	763	69,646	302,870	0.230	-1.470	-	-	763	69,646	
7/19/2019	630	22,543	302,870	0.074	-2.598	-	-	630	22,543	
7/20/2019	192	19,171	302,870	0.063	-2.760	-	-	192	19,171	
7/21/2019	564	70,923	302,870	0.234	-1.452	-	-	564	70,923	
7/22/2019	690	40,773	302,870	0.135	-2.005	-	-	690	40,773	
7/23/2019	225	75,167	302,870	0.248	-1.394	-	-	225	75,167	
7/24/2019	68	8,157	302,870	0.027	-3.614	-	-	68	8,157	
7/25/2019	199	15,726	302,870	0.052	-2.958	-	-	199	15,726	
7/26/2019	98	16,312	302,870	0.054	-2.921	-	-	98	16,312	
7/27/2019	66	5,418	302,870	0.018	-4.024	-	-	66	5,418	
7/28/2019	401	72,015	302,870	0.238	-1.436	-	-	401	72,015	
7/29/2019	433	53,219	302,870	0.176	-1.739	-	-	433	53,219	
7/30/2019	942	185,460	302,870	0.612	-0.490	-	-	942	185,460	
7/31/2019	77	15,879	302,870	0.052	-2.948	-	-	77	15,879	
8/1/2019	75	9,444	302,870	0.031	-3.468	-	-	75	9,444	
8/2/2019	3,683	36,392	302,870	0.120	-2.119	-	-	3,683	36,392	
8/3/2019	221	13,257	302,870	0.044	-3.129	-	-	221	13,257	
8/4/2019	20	5,730	302,870	0.019	-3.968	-	-	20	5,730	
8/5/2019	42	6,549	302,870	0.022	-3.834	-	-	42	6,549	
8/6/2019	1,308	213,877	302,870	0.706	-0.348	-	-	1,308	213,877	
8/7/2019	364	42,223	302,870	0.139	-1.970	-	-	364	42,223	
8/8/2019	109	13,148	302,870	0.043	-3.137	-	-	109	13,148	
8/9/2019	206	39,905	302,870	0.132	-2.027	-	-	206	39,905	
8/10/2019	176	15,686	302,870	0.052	-2.961	-	-	176	15,686	
8/11/2019	71	5,173	302,870	0.017	-4.070	-	-	71	5,173	
8/12/2019	299	17,881	302,870	0.059	-2.830	-	-	299	17,881	
8/13/2019	437	41,222	302,870	0.136	-1.994	-	-	437	41,222	
8/14/2019	2,143	102,669	302,870	0.339	-1.082	-	-	2,143	102,669	
8/15/2019	214	25,073	302,870	0.083	-2.492	-	-	214	25,073	
8/16/2019	76	8,083	302,870	0.027	-3.624	-	-	76	8,083	
8/17/2019	169	44,978	302,870	0.149	-1.907	-	-	169	44,978	
8/18/2019	3,077	632,290	302,870	2.088	0.736	-	-	3,077	632,290	
8/19/2019	1,451	76,173	302,870	0.252	-1.380	-	-	1,451	76,173	
8/20/2019	623	109,276	302,870	0.361	-1.019	-	-	623	109,276	
8/21/2019	231	30,437	302,870	0.100	-2.298	-	-	231	30,437	
8/22/2019	151	15,202	302,870	0.050	-2.992	-	-	151	15,202	
8/23/2019	176	17,931	302,870	0.059	-2.827	-	-	176	17,931	
8/24/2019	106	17,823	302,870	0.059	-2.833	-	-	106	17,823	
8/25/2019	187	15,121	302,870	0.050	-2.997	-	-	187	15,121	
8/26/2019	132	14,562	302,870	0.048	-3.035	-	-	132	14,562	
8/27/2019	301	55,738	302,870	0.184	-1.693	-	-	301	55,738	
8/28/2019	200	29,934	302,870	0.099	-2.314	-	-	200	29,934	
8/29/2019	82	6,785	302,870	0.022	-3.799	-	-	82	6,785	
8/30/2019	842	81,760	302,870	0.270	-1.310	-	-	842	81,760	
8/31/2019	47	4,726	302,870	0.016	-4.160	-	-	47	4,726	
9/1/2019	132	12,040	302,870	0.040	-3.225	-	-	132	12,040	
9/2/2019	45	15,931	302,870	0.053	-2.945	-	-	45	15,931	
9/3/2019	193	7,911	302,870	0.026	-3.645	-	-	193	7,911	
9/4/2019	139	18,895	302,870	0.062	-2.774	-	-	139	18,895	
9/5/2019	230	16,700	302,870	0.055	-2.898	-	-	230	16,700	
9/6/2019	1,452	147,175	302,870	0.486	-0.722	-	-	1,452	147,175	
9/7/2019	166	11,606	302,870	0.038	-3.262	-	-	166	11,606	
9/8/2019	124	36,234	302,870	0.120	-2.123	-	-	124	36,234	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
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Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
9/9/2019	80	8,020	302,870	0.026	-3.631	-	-	80	8,020	
9/10/2019	203	15,158	302,870	0.050	-2.995	-	-	203	15,158	
9/11/2019	248	19,078	302,870	0.063	-2.765	-	-	248	19,078	
9/12/2019	1,587	288,840	302,870	0.954	-0.047	-	-	1,587	288,840	
9/13/2019	5,879	1,673,508	302,870	5.525	1.709	-	-	5,879	1,673,508	1
9/14/2019	189	18,269	302,870	0.060	-2.808	-	-	189	18,269	
9/15/2019	284	57,996	302,870	0.191	-1.653	-	-	284	57,996	
9/16/2019	2,429	230,194	302,870	0.760	-0.274	-	-	2,429	230,194	
9/17/2019	1,708	60,689	302,870	0.200	-1.608	-	-	1,708	60,689	
9/18/2019	2,468	37,558	302,870	0.124	-2.087	-	-	2,468	37,558	
9/19/2019	259	26,961	302,870	0.089	-2.419	-	-	259	26,961	
9/20/2019	242	27,771	302,870	0.092	-2.389	-	-	242	27,771	
9/21/2019	2,960	249,875	302,870	0.825	-0.192	-	-	2,960	249,875	
9/22/2019	136	27,742	302,870	0.092	-2.390	-	-	136	27,742	
9/23/2019	984	151,369	302,870	0.500	-0.694	-	-	984	151,369	
9/24/2019	17	1,869	302,870	0.006	-5.088	-	-	17	1,869	
9/25/2019	258	10,406	302,870	0.034	-3.371	-	-	258	10,406	
9/26/2019	808	42,323	302,870	0.140	-1.968	-	-	808	42,323	
9/27/2019	524	109,206	302,870	0.361	-1.020	-	-	524	109,206	
9/28/2019	518	121,610	302,870	0.402	-0.912	-	-	518	121,610	
9/29/2019	84	21,319	302,870	0.070	-2.654	-	-	84	21,319	
9/30/2019	280	35,605	302,870	0.118	-2.141	-	-	280	35,605	
10/1/2019	121	12,742	302,870	0.042	-3.168	-	-	121	12,742	
10/2/2019	588	86,479	302,870	0.286	-1.253	-	-	588	86,479	
10/3/2019	42	3,792	302,870	0.013	-4.380	-	-	42	3,792	
10/4/2019	65	6,059	302,870	0.020	-3.912	-	-	65	6,059	
10/5/2019	23	4,958	302,870	0.016	-4.112	-	-	23	4,958	
10/6/2019	17	2,993	302,870	0.010	-4.617	-	-	17	2,993	
10/7/2019	156	22,568	302,870	0.075	-2.597	-	-	156	22,568	
10/8/2019	149	14,289	302,870	0.047	-3.054	-	-	149	14,289	
10/9/2019	57	4,913	302,870	0.016	-4.121	-	-	57	4,913	
10/10/2019	801	45,247	302,870	0.149	-1.901	-	-	801	45,247	
10/11/2019	295	48,539	302,870	0.160	-1.831	-	-	295	48,539	
10/12/2019	114	17,102	302,870	0.056	-2.874	-	-	114	17,102	
10/13/2019	9	835	302,870	0.003	-5.894	-	-	9	835	
10/14/2019	254	30,279	302,870	0.100	-2.303	-	-	254	30,279	
10/15/2019	41	3,594	302,870	0.012	-4.434	-	-	41	3,594	
10/16/2019	232	51,279	302,870	0.169	-1.776	-	-	232	51,279	
10/17/2019	144	14,286	302,870	0.047	-3.054	-	-	144	14,286	
10/18/2019	21	2,471	302,870	0.008	-4.809	-	-	21	2,471	
10/19/2019	48	2,373	302,870	0.008	-4.849	-	-	48	2,373	
10/20/2019	54	3,874	302,870	0.013	-4.359	-	-	54	3,874	
10/21/2019	3,261	243,014	302,870	0.802	-0.220	-	-	3,261	243,014	
10/22/2019	492	21,606	302,870	0.071	-2.640	-	-	492	21,606	
10/23/2019	29	2,155	302,870	0.007	-4.946	-	-	29	2,155	
10/24/2019	87	9,544	302,870	0.032	-3.457	-	-	87	9,544	
10/25/2019	79	6,325	302,870	0.021	-3.869	-	-	79	6,325	
10/26/2019	178	24,639	302,870	0.081	-2.509	-	-	178	24,639	
10/27/2019	5,242	588,094	302,870	1.942	0.664	-	-	5,242	588,094	
10/28/2019	146	13,770	302,870	0.045	-3.091	-	-	146	13,770	
10/29/2019	321	48,582	302,870	0.160	-1.830	-	-	321	48,582	
10/30/2019	75	7,314	302,870	0.024	-3.724	-	-	75	7,314	
10/31/2019	168	29,236	302,870	0.097	-2.338	-	-	168	29,236	
11/1/2019	395	54,016	302,870	0.178	-1.724	-	-	395	54,016	
11/2/2019	2,150	128,259	302,870	0.423	-0.859	-	-	2,150	128,259	
11/3/2019	15	1,805	302,870	0.006	-5.123	-	-	15	1,805	
11/4/2019	15	1,261	302,870	0.004	-5.481	-	-	15	1,261	
11/5/2019	152	18,270	302,870	0.060	-2.808	-	-	152	18,270	
11/6/2019	393	54,425	302,870	0.180	-1.716	-	-	393	54,425	
11/7/2019	68	3,437	302,870	0.011	-4.479	-	-	68	3,437	
11/8/2019	42	2,769	302,870	0.009	-4.695	-	-	42	2,769	
11/9/2019	36	3,396	302,870	0.011	-4.491	-	-	36	3,396	
11/10/2019	89	5,155	302,870	0.017	-4.073	-	-	89	5,155	
11/11/2019	5,418	626,308	302,870	2.068	0.727	3,417	240,982	2,001	385,326	
11/12/2019	115	12,778	302,870	0.042	-3.166	-	-	115	12,778	
11/13/2019	134	31,545	302,870	0.104	-2.262	-	-	134	31,545	
11/14/2019	156	20,765	302,870	0.069	-2.680	-	-	156	20,765	
11/15/2019	1,344	41,639	302,870	0.137	-1.984	-	-	1,344	41,639	
11/16/2019	45	2,773	302,870	0.009	-4.693	-	-	45	2,773	
11/17/2019	157	14,588	302,870	0.048	-3.033	-	-	157	14,588	
11/18/2019	33	3,899	302,870	0.013	-4.353	-	-	33	3,899	
11/19/2019	32	4,111	302,870	0.014	-4.300	-	-	32	4,111	
11/20/2019	122	10,910	302,870	0.036	-3.324	-	-	122	10,910	
11/21/2019	406	63,759	302,870	0.211	-1.558	-	-	406	63,759	
11/22/2019	43	4,153	302,870	0.014	-4.289	-	-	43	4,153	
11/23/2019	73	3,548	302,870	0.012	-4.447	-	-	73	3,548	
11/24/2019	188	20,051	302,870	0.066	-2.715	-	-	188	20,051	
11/25/2019	21	1,533	302,870	0.005	-5.286	-	-	21	1,533	
11/26/2019	334	45,933	302,870	0.152	-1.886	-	-	334	45,933	
11/27/2019	4,496	806,332	302,870	2.662	0.979	-	-	4,496	806,332	
11/28/2019	1,964	56,455	302,870	0.186	-1.680	-	-	1,964	56,455	
11/29/2019	51	3,354	302,870	0.011	-4.503	-	-	51	3,354	
11/30/2019	70	3,984	302,870	0.013	-4.331	-	-	70	3,984	
12/1/2019	56	4,554	302,870	0.015	-4.197	-	-	56	4,554	
12/2/2019	7	954	302,870	0.003	-5.760	-	-	7	954	
12/4/2019	13	1,114	302,870	0.004	-5.605	-	-	13	1,114	
12/5/2019	465	74,409	302,870	0.246	-1.404	-	-	465	74,409	
12/6/2019	2,529	260,533	302,870	0.860	-0.151	-	-	2,529	260,533	
12/7/2019	97	12,960	302,870	0.043	-3.151	-	-	97	12,960	
12/8/2019	124	6,870	302,870	0.023	-3.786	-	-	124	6,870	
12/9/2019	91	17,731	302,870	0.059	-2.838	-	-	91	17,731	
12/10/2019	2,407	89,300	302,870	0.295	-1.221	-	-	2,407	89,300	
12/11/2019	5	681	302,870	0.002	-6.097	-	-	5	681	
12/12/2019	2	66	302,870	0.000	-8.431	-	-	2	66	
12/13/2019	19	3,256	302,870	0.011	-4.533	-	-	19	3,256	
12/14/2019	5	412	302,870	0.001	-6.600	-	-	5	412	
12/15/2019	11	478	302,870	0.002	-6.451	-	-	11	478	
12/16/2019	74	6,316	302,870	0.021	-3.870	-	-	74	6,316	
12/17/2019	37	1,738	302,870	0.006	-5.161	-	-	37	1,738	
12/18/2019	42	4,470	302,870	0.015	-4.216	-	-	42	4,470	
12/19/2019	346	18,305	302,870	0.060	-2.806	-	-	346	18,305	
12/20/2019	86	7,179	302,870	0.024	-3.742	-	-	86	7,179	
12/21/2019	4	613	302,870	0.002	-6.203	-	-	4	613	
12/22/2019	13	690	302,870	0.002	-6.084	-	-	13	690	
12/23/2019	89	11,564	302,870	0.038	-3.265	-	-	89	11,564	
12/24/2019	38	19,834	302,870	0.065	-2.726	-	-	38	19,834	
12/25/2019	2	138	302,870	0.000	-7.694	-	-	2	138	
12/26/2019	46	6,296	302,870	0.021	-3.873	-	-	46	6,296	

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Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
12/27/2019	2	312	302,870	0.001	-6.878	-	-	2	312	
12/28/2019	3	414	302,870	0.001	-6.595	-	-	3	414	
12/29/2019	381	36,689	302,870	0.121	-2.111	-	-	381	36,689	
12/30/2019	4,741	533,480	302,870	1.761	0.566	-	-	4,741	533,480	
12/31/2019	515	12,285	302,870	0.041	-3.205	-	-	515	12,285	
1/1/2020	11	485	305,450	0.002	-6.445	-	-	11	485	
1/2/2020	5	477	305,450	0.002	-6.462	-	-	5	477	
1/3/2020	48	1,820	305,450	0.006	-5.123	-	-	48	1,820	
1/4/2020	2	215	305,450	0.001	-7.259	-	-	2	215	
1/5/2020	1,334	74,417	305,450	0.244	-1.412	-	-	1,334	74,417	
1/6/2020	127	36,131	305,450	0.118	-2.135	-	-	127	36,131	
1/7/2020	43	2,224	305,450	0.007	-4.922	-	-	43	2,224	
1/8/2020	18	4,834	305,450	0.016	-4.146	-	-	18	4,834	
1/9/2020	52	3,009	305,450	0.010	-4.620	-	-	52	3,009	
1/10/2020	113	11,704	305,450	0.038	-3.262	-	-	113	11,704	
1/11/2020	117	32,804	305,450	0.107	-2.231	-	-	117	32,804	
1/12/2020	144	18,712	305,450	0.061	-2.793	-	-	144	18,712	
1/13/2020	29	1,453	305,450	0.005	-5.348	-	-	29	1,453	
1/14/2020	156	6,200	305,450	0.020	-3.897	-	-	156	6,200	
1/15/2020	294	18,032	305,450	0.059	-2.830	-	-	294	18,032	
1/16/2020	411	123,093	305,450	0.403	-0.909	-	-	411	123,093	
1/17/2020	11	1,015	305,450	0.003	-5.707	-	-	11	1,015	
1/18/2020	1,390	133,171	305,450	0.436	-0.830	-	-	1,390	133,171	
1/19/2020	601	87,670	305,450	0.287	-1.248	-	-	601	87,670	
1/20/2020	60	6,918	305,450	0.023	-3.788	-	-	60	6,918	
1/21/2020	62	6,194	305,450	0.020	-3.898	-	-	62	6,194	
1/22/2020	47	4,093	305,450	0.013	-4.313	-	-	47	4,093	
1/23/2020	702	30,603	305,450	0.100	-2.301	-	-	702	30,603	
1/24/2020	311	9,759	305,450	0.032	-3.444	-	-	311	9,759	
1/25/2020	44	3,108	305,450	0.010	-4.588	-	-	44	3,108	
1/26/2020	2	363	305,450	0.001	-6.735	-	-	2	363	
1/27/2020	49	4,443	305,450	0.015	-4.230	-	-	49	4,443	
1/28/2020	98	12,703	305,450	0.042	-3.180	-	-	98	12,703	
1/29/2020	10	694	305,450	0.002	-6.087	-	-	10	694	
1/30/2020	50	5,672	305,450	0.019	-3.986	-	-	50	5,672	
1/31/2020	56	2,778	305,450	0.009	-4.700	-	-	56	2,778	
2/1/2020	111	11,902	305,450	0.039	-3.245	-	-	111	11,902	
2/2/2020	154	47,945	305,450	0.157	-1.852	-	-	154	47,945	
2/3/2020	103	7,392	305,450	0.024	-3.721	-	-	103	7,392	
2/4/2020	44	3,368	305,450	0.011	-4.507	-	-	44	3,368	
2/5/2020	1	120	305,450	0.000	-7.842	-	-	1	120	
2/6/2020	27	3,943	305,450	0.013	-4.350	-	-	27	3,943	
2/7/2020	15	2,735	305,450	0.009	-4.716	-	-	15	2,735	
2/8/2020	139	10,683	305,450	0.035	-3.353	-	-	139	10,683	
2/9/2020	1,363	132,237	305,450	0.433	-0.837	-	-	1,363	132,237	
2/10/2020	1,428	120,468	305,450	0.394	-0.930	-	-	1,428	120,468	
2/11/2020	452	67,971	305,450	0.223	-1.503	-	-	452	67,971	
2/12/2020	11	1,201	305,450	0.004	-5.539	-	-	11	1,201	
2/14/2020	493	93,775	305,450	0.307	-1.181	-	-	493	93,775	
2/15/2020	14	3,816	305,450	0.012	-4.383	-	-	14	3,816	
2/16/2020	50	8,986	305,450	0.029	-3.526	-	-	50	8,986	
2/17/2020	51	7,069	305,450	0.023	-3.766	-	-	51	7,069	
2/18/2020	161	25,899	305,450	0.085	-2.468	-	-	161	25,899	
2/19/2020	19	1,232	305,450	0.004	-5.513	-	-	19	1,232	
2/20/2020	2	118	305,450	0.000	-7.859	-	-	2	118	
2/21/2020	69	10,300	305,450	0.034	-3.390	-	-	69	10,300	
2/22/2020	26	4,644	305,450	0.015	-4.186	-	-	26	4,644	
2/23/2020	167	15,602	305,450	0.051	-2.974	-	-	167	15,602	
2/24/2020	18	1,254	305,450	0.004	-5.495	-	-	18	1,254	
2/25/2020	170	24,926	305,450	0.082	-2.506	-	-	170	24,926	
2/26/2020	20	2,474	305,450	0.008	-4.816	-	-	20	2,474	
2/27/2020	108	11,894	305,450	0.039	-3.246	-	-	108	11,894	
2/28/2020	2,419	128,542	305,450	0.421	-0.866	-	-	2,419	128,542	
2/29/2020	39	4,486	305,450	0.015	-4.221	-	-	39	4,486	
3/1/2020	56	13,796	305,450	0.045	-3.097	-	-	56	13,796	
3/2/2020	159	21,987	305,450	0.072	-2.631	-	-	159	21,987	
3/3/2020	136	18,782	305,450	0.061	-2.789	-	-	136	18,782	
3/4/2020	133	21,040	305,450	0.069	-2.675	-	-	133	21,040	
3/5/2020	32	3,330	305,450	0.011	-4.519	-	-	32	3,330	
3/6/2020	64	5,941	305,450	0.019	-3.940	-	-	64	5,941	
3/7/2020	29	2,008	305,450	0.007	-5.025	-	-	29	2,008	
3/8/2020	2,353	367,089	305,450	1.202	0.184	-	-	2,353	367,089	
3/9/2020	285	8,051	305,450	0.026	-3.636	-	-	285	8,051	
3/10/2020	167	24,880	305,450	0.081	-2.508	-	-	167	24,880	
3/11/2020	29	3,230	305,450	0.011	-4.549	-	-	29	3,230	
3/12/2020	49	4,886	305,450	0.016	-4.135	-	-	49	4,886	
3/13/2020	294	47,762	305,450	0.156	-1.856	-	-	294	47,762	
3/14/2020	396	68,670	305,450	0.225	-1.492	-	-	396	68,670	
3/15/2020	1,037	112,570	305,450	0.369	-0.998	-	-	1,037	112,570	
3/16/2020	15	1,116	305,450	0.004	-5.612	-	-	15	1,116	
3/17/2020	38	4,552	305,450	0.015	-4.206	-	-	38	4,552	
3/18/2020	214	46,073	305,450	0.151	-1.892	-	-	214	46,073	
3/19/2020	546	49,274	305,450	0.161	-1.824	-	-	546	49,274	
3/20/2020	4,321	554,734	305,450	1.816	0.597	-	-	4,321	554,734	
3/21/2020	1,149	34,100	305,450	0.112	-2.192	-	-	1,149	34,100	
3/22/2020	138	14,024	305,450	0.046	-3.081	-	-	138	14,024	
3/23/2020	116	20,537	305,450	0.067	-2.700	-	-	116	20,537	
3/24/2020	456	27,915	305,450	0.091	-2.393	-	-	456	27,915	
3/25/2020	68	5,329	305,450	0.017	-4.049	-	-	68	5,329	
3/26/2020	16	1,677	305,450	0.005	-5.205	-	-	16	1,677	
3/27/2020	184	24,071	305,450	0.079	-2.541	-	-	184	24,071	
3/28/2020	370	29,436	305,450	0.096	-2.340	-	-	370	29,436	
3/29/2020	3,250	509,282	305,450	1.667	0.511	-	-	3,250	509,282	
3/30/2020	82	10,117	305,450	0.033	-3.408	-	-	82	10,117	
3/31/2020	50	4,713	305,450	0.015	-4.171	-	-	50	4,713	
4/1/2020	135	20,435	305,450	0.067	-2.705	-	-	135	20,435	
4/2/2020	11	907	305,450	0.003	-5.819	-	-	11	907	
4/3/2020	29	1,653	305,450	0.005	-5.219	-	-	29	1,653	
4/4/2020	93	33,171	305,450	0.109	-2.220	-	-	93	33,171	
4/5/2020	20	1,509	305,450	0.005	-5.310	-	-	20	1,509	
4/6/2020	39	7,818	305,450	0.026	-3.665	-	-	39	7,818	
4/7/2020	582	209,494	305,450	0.686	-0.377	-	-	582	209,494	
4/8/2020	2,904	165,417	305,450	0.542	-0.613	-	-	2,904	165,417	
4/9/2020	2,581	201,989	305,450	0.661	-0.414	-	-	2,581	201,989	
4/10/2020	40	4,465	305,450	0.015	-4.226	-	-	40	4,465	
4/11/2020	39	1,474	305,450	0.005	-5.334	-	-	39	1,474	
4/12/2020	19	1,336	305,450	0.004	-5.432	-	-	19	1,336	
4/13/2020	110	18,418	305,450	0.060	-2.808	-	-	110	18,418	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
4/14/2020	38	6,329	305,450	0.021	-3.877	-	-	38	6,329	
4/15/2020	120	14,225	305,450	0.047	-3.067	-	-	120	14,225	
4/16/2020	48	1,896	305,450	0.006	-5.082	-	-	48	1,896	
4/17/2020	102	15,771	305,450	0.052	-2.964	-	-	102	15,771	
4/18/2020	68	12,965	305,450	0.042	-3.160	-	-	68	12,965	
4/19/2020	696	38,097	305,450	0.125	-2.082	-	-	696	38,097	
4/20/2020	62	7,236	305,450	0.024	-3.743	-	-	62	7,236	
4/21/2020	3,040	273,196	305,450	0.894	-0.112	-	-	3,040	273,196	
4/22/2020	63	4,732	305,450	0.015	-4.167	-	-	63	4,732	
4/23/2020	66	6,763	305,450	0.022	-3.810	-	-	66	6,763	
4/24/2020	15	2,324	305,450	0.008	-4.878	-	-	15	2,324	
4/25/2020	44	7,080	305,450	0.023	-3.765	-	-	44	7,080	
4/26/2020	74	15,888	305,450	0.052	-2.956	-	-	74	15,888	
4/27/2020	81	2,260	305,450	0.007	-4.906	-	-	81	2,260	
4/28/2020	855	105,558	305,450	0.346	-1.063	-	-	855	105,558	
4/29/2020	69	5,700	305,450	0.019	-3.981	-	-	69	5,700	
4/30/2020	48	3,578	305,450	0.012	-4.447	-	-	48	3,578	
5/1/2020	27	1,703	305,450	0.006	-5.189	-	-	27	1,703	
5/2/2020	387	30,868	305,450	0.101	-2.292	-	-	387	30,868	
5/3/2020	82	11,907	305,450	0.039	-3.245	-	-	82	11,907	
5/4/2020	53	4,727	305,450	0.015	-4.168	-	-	53	4,727	
5/5/2020	243	31,786	305,450	0.104	-2.263	-	-	243	31,786	
5/6/2020	424	67,596	305,450	0.221	-1.508	-	-	424	67,596	
5/7/2020	3,434	120,585	305,450	0.395	-0.929	-	-	3,434	120,585	
5/8/2020	59	7,270	305,450	0.024	-3.738	-	-	59	7,270	
5/9/2020	146	45,481	305,450	0.149	-1.904	-	-	146	45,481	
5/10/2020	9,532	1,047,072	305,450	3.428	1.232	6,872	733,084	2,660	313,988	
5/11/2020	80	12,752	305,450	0.042	-3.176			80	12,752	
5/12/2020	3,198	368,397	305,450	1.206	0.187	-	-	3,198	368,397	
5/13/2020	41	3,945	305,450	0.013	-4.349	-	-	41	3,945	
5/14/2020	812	82,770	305,450	0.271	-1.306	-	-	812	82,770	
5/15/2020	1,981	22,091	305,450	0.072	-2.627	-	-	1,981	22,091	
5/16/2020	35	2,297	305,450	0.008	-4.890	-	-	35	2,297	
5/17/2020	897	191,618	305,450	0.627	-0.466	-	-	897	191,618	
5/18/2020	271	35,494	305,450	0.116	-2.152	-	-	271	35,494	
5/19/2020	1,932	150,564	305,450	0.493	-0.707	2,393	78,969	(461)	71,595	
5/20/2020	2,572	201,143	305,450	0.659	-0.418	-	-	2,572	201,143	
5/21/2020	162	11,224	305,450	0.037	-3.304	-	-	162	11,224	
5/22/2020	2,511	110,487	305,450	0.362	-1.017	-	-	2,511	110,487	
5/23/2020	18	3,185	305,450	0.010	-4.563	-	-	18	3,185	
5/24/2020	129	32,896	305,450	0.108	-2.228	-	-	129	32,896	
5/25/2020	123	12,996	305,450	0.043	-3.157	-	-	123	12,996	
5/26/2020	585	108,858	305,450	0.356	-1.032	-	-	585	108,858	
5/27/2020	162	10,468	305,450	0.034	-3.373	-	-	162	10,468	
5/28/2020	33	4,225	305,450	0.014	-4.281	-	-	33	4,225	
5/29/2020	278	37,879	305,450	0.124	-2.087	-	-	278	37,879	
5/30/2020	122	21,757	305,450	0.071	-2.642	-	-	122	21,757	
5/31/2020	191	9,493	305,450	0.031	-3.471	-	-	191	9,493	
6/1/2020	481	14,956	305,450	0.049	-3.017	-	-	481	14,956	
6/2/2020	198	32,378	305,450	0.106	-2.244	-	-	198	32,378	
6/3/2020	1,232	230,989	305,450	0.756	-0.279	-	-	1,232	230,989	
6/4/2020	131	7,080	305,450	0.023	-3.765	-	-	131	7,080	
6/5/2020	88	9,440	305,450	0.031	-3.477	-	-	88	9,440	
6/6/2020	260	47,490	305,450	0.155	-1.861	-	-	260	47,490	
6/7/2020	440	47,935	305,450	0.157	-1.852	-	-	440	47,935	
6/8/2020	69	6,000	305,450	0.020	-3.930	-	-	69	6,000	
6/9/2020	1,653	164,648	305,450	0.539	-0.618	-	-	1,653	164,648	
6/10/2020	8,862	3,461,485	305,450	11.332	2.428	2,124	296,346	6,738	3,165,139	1
6/11/2020	1,173	56,470	305,450	0.185	-1.688	-	-	1,173	56,470	
6/12/2020	1,137	94,762	305,450	0.310	-1.170	-	-	1,137	94,762	
6/13/2020	592	59,143	305,450	0.194	-1.642	-	-	592	59,143	
6/14/2020	2,322	333,911	305,450	1.093	0.089	-	-	2,322	333,911	
6/15/2020	72	5,727	305,450	0.019	-3.977	-	-	72	5,727	
6/16/2020	172	10,988	305,450	0.036	-3.325	-	-	172	10,988	
6/17/2020	321	21,328	305,450	0.070	-2.662	-	-	321	21,328	
6/18/2020	61	4,890	305,450	0.016	-4.135	-	-	61	4,890	
6/19/2020	69	11,727	305,450	0.038	-3.260	-	-	69	11,727	
6/20/2020	270	22,852	305,450	0.075	-2.593	-	-	270	22,852	
6/21/2020	138	10,715	305,450	0.035	-3.350	-	-	138	10,715	
6/22/2020	239	13,605	305,450	0.045	-3.111	-	-	239	13,605	
6/23/2020	146	10,999	305,450	0.036	-3.324	-	-	146	10,999	
6/24/2020	228	5,551	305,450	0.018	-4.008	-	-	228	5,551	
6/25/2020	1,342	76,179	305,450	0.249	-1.389	-	-	1,342	76,179	
6/26/2020	652	133,142	305,450	0.436	-0.830	-	-	652	133,142	
6/27/2020	6,617	1,517,223	305,450	4.967	1.603	-	-	6,617	1,517,223	1
6/28/2020	190	17,228	305,450	0.056	-2.875	-	-	190	17,228	
6/29/2020	346	51,257	305,450	0.168	-1.785	-	-	346	51,257	
6/30/2020	50	9,298	305,450	0.030	-3.492	-	-	50	9,298	
7/1/2020	362	36,016	305,450	0.118	-2.138	-	-	362	36,016	
7/2/2020	324	32,405	305,450	0.106	-2.243	-	-	324	32,405	
7/3/2020	4,214	354,693	305,450	1.161	0.149	1,947	218,064	2,267	136,629	
7/4/2020	276	36,910	305,450	0.121	-2.113	-	-	276	36,910	
7/5/2020	1,067	72,324	305,450	0.237	-1.441	-	-	1,067	72,324	
7/6/2020	259	73,365	305,450	0.240	-1.426	-	-	259	73,365	
7/7/2020	552	94,614	305,450	0.310	-1.172	-	-	552	94,614	
7/8/2020	2,177	461,945	305,450	1.512	0.414	-	-	2,177	461,945	
7/9/2020	974	82,613	305,450	0.270	-1.308	-	-	974	82,613	
7/10/2020	3,984	513,552	305,450	1.681	0.520	-	-	3,984	513,552	
7/11/2020	320	91,822	305,450	0.301	-1.202	-	-	320	91,822	
7/12/2020	2,465	80,559	305,450	0.264	-1.333	-	-	2,465	80,559	
7/13/2020	403	31,948	305,450	0.105	-2.258	-	-	403	31,948	
7/14/2020	167	17,032	305,450	0.056	-2.887	-	-	167	17,032	
7/15/2020	138	16,034	305,450	0.052	-2.947	-	-	138	16,034	
7/16/2020	571	70,970	305,450	0.232	-1.460	-	-	571	70,970	
7/17/2020	90	15,504	305,450	0.051	-2.981	-	-	90	15,504	
7/18/2020	281	33,389	305,450	0.109	-2.214	-	-	281	33,389	
7/19/2020	4,281	511,404	305,450	1.674	0.515	-	-	4,281	511,404	
7/20/2020	243	21,938	305,450	0.072	-2.634	-	-	243	21,938	
7/21/2020	143	19,281	305,450	0.063	-2.763	-	-	143	19,281	
7/22/2020	159	51,044	305,450	0.167	-1.789	-	-	159	51,044	
7/23/2020	48	7,171	305,450	0.023	-3.752	-	-	48	7,171	
7/24/2020	126	12,235	305,450	0.040	-3.217	-	-	126	12,235	
7/25/2020	237	29,716	305,450	0.097	-2.330	-	-	237	29,716	
7/26/2020	108	27,026	305,450	0.088	-2.425	-	-	108	27,026	
7/27/2020	95	7,002	305,450	0.023	-3.776	-	-	95	7,002	
7/28/2020	1,150	67,181	305,450	0.220	-1.514	-	-	1,150	67,181	
7/29/2020	211	23,489	305,450	0.077	-2.565	-	-	211	23,489	
7/30/2020	1,392	68,079	305,450	0.223	-1.501	-	-	1,392	68,079	

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
7/31/2020	164	8,195	305,450	0.027	-3.618	-	-	164	8,195	
8/1/2020	224	43,664	305,450	0.143	-1.945	-	-	224	43,664	
8/2/2020	243	33,063	305,450	0.108	-2.223	-	-	243	33,063	
8/3/2020	50	6,714	305,450	0.022	-3.818	-	-	50	6,714	
8/4/2020	719	41,675	305,450	0.136	-1.992	-	-	719	41,675	
8/5/2020	47	4,422	305,450	0.014	-4.235	-	-	47	4,422	
8/6/2020	971	22,677	305,450	0.074	-2.600	-	-	971	22,677	
8/7/2020	159	15,581	305,450	0.051	-2.976	-	-	159	15,581	
8/8/2020	129	16,704	305,450	0.055	-2.906	-	-	129	16,704	
8/9/2020	493	48,860	305,450	0.160	-1.833	-	-	493	48,860	
8/10/2020	1,169	144,808	305,450	0.474	-0.746	-	-	1,169	144,808	
8/11/2020	348	94,449	305,450	0.309	-1.174	-	-	348	94,449	
8/12/2020	141	13,061	305,450	0.043	-3.152	-	-	141	13,061	
8/13/2020	84	13,145	305,450	0.043	-3.146	-	-	84	13,145	
8/14/2020	1,474	241,488	305,450	0.791	-0.235	-	-	1,474	241,488	
8/15/2020	257	31,010	305,450	0.102	-2.287	-	-	257	31,010	
8/16/2020	441	71,303	305,450	0.233	-1.455	-	-	441	71,303	
8/17/2020	323	48,271	305,450	0.158	-1.845	-	-	323	48,271	
8/18/2020	36	3,124	305,450	0.010	-4.583	-	-	36	3,124	
8/19/2020	55	3,987	305,450	0.013	-4.339	-	-	55	3,987	
8/20/2020	145	54,806	305,450	0.179	-1.718	-	-	145	54,806	
8/21/2020	71	5,430	305,450	0.018	-4.030	-	-	71	5,430	
8/22/2020	201	22,378	305,450	0.073	-2.614	-	-	201	22,378	
8/23/2020	454	35,522	305,450	0.116	-2.152	-	-	454	35,522	
8/24/2020	46	7,178	305,450	0.023	-3.751	-	-	46	7,178	
8/25/2020	427	87,481	305,450	0.286	-1.250	-	-	427	87,481	
8/26/2020	3,009	313,701	305,450	1.027	0.027	-	-	3,009	313,701	
8/27/2020	260	21,841	305,450	0.072	-2.638	-	-	260	21,841	
8/28/2020	3,269	187,693	305,450	0.614	-0.487	-	-	3,269	187,693	
8/29/2020	1,155	247,098	305,450	0.809	-0.212	-	-	1,155	247,098	
8/30/2020	181	10,681	305,450	0.035	-3.353	-	-	181	10,681	
8/31/2020	6,176	239,983	305,450	0.786	-0.241	-	-	6,176	239,983	
9/1/2020	136	20,599	305,450	0.067	-2.697	-	-	136	20,599	
9/2/2020	94	17,636	305,450	0.058	-2.852	-	-	94	17,636	
9/3/2020	236	23,294	305,450	0.076	-2.574	-	-	236	23,294	
9/4/2020	233	31,267	305,450	0.102	-2.279	-	-	233	31,267	
9/5/2020	129	12,528	305,450	0.041	-3.194	-	-	129	12,528	
9/6/2020	63	6,874	305,450	0.023	-3.794	-	-	63	6,874	
9/7/2020	4,355	636,861	305,450	2.085	0.735	-	-	4,355	636,861	
9/8/2020	478	61,409	305,450	0.201	-1.604	-	-	478	61,409	
9/9/2020	118	10,221	305,450	0.033	-3.397	-	-	118	10,221	
9/10/2020	375	50,686	305,450	0.166	-1.796	-	-	375	50,686	
9/11/2020	50	3,739	305,450	0.012	-4.403	-	-	50	3,739	
9/12/2020	139	21,500	305,450	0.070	-2.654	-	-	139	21,500	
9/13/2020	1,058	185,678	305,450	0.608	-0.498	-	-	1,058	185,678	
9/14/2020	230	24,795	305,450	0.081	-2.511	-	-	230	24,795	
9/15/2020	114	28,491	305,450	0.093	-2.372	-	-	114	28,491	
9/16/2020	67	16,702	305,450	0.055	-2.906	-	-	67	16,702	
9/17/2020	64	12,730	305,450	0.042	-3.178	-	-	64	12,730	
9/18/2020	52	3,467	305,450	0.011	-4.478	-	-	52	3,467	
9/19/2020	297	102,529	305,450	0.336	-1.092	-	-	297	102,529	
9/20/2020	70	5,741	305,450	0.019	-3.974	-	-	70	5,741	
9/21/2020	50	3,116	305,450	0.010	-4.585	-	-	50	3,116	
9/22/2020	16	1,203	305,450	0.004	-5.537	-	-	16	1,203	
9/23/2020	98	7,546	305,450	0.025	-3.701	-	-	98	7,546	
9/24/2020	71	6,319	305,450	0.021	-3.878	-	-	71	6,319	
9/25/2020	375	35,691	305,450	0.117	-2.147	-	-	375	35,691	
9/26/2020	233	20,467	305,450	0.067	-2.703	-	-	233	20,467	
9/27/2020	110	13,660	305,450	0.045	-3.107	-	-	110	13,660	
9/28/2020	4,594	365,638	305,450	1.197	0.180	-	-	4,594	365,638	
9/29/2020	170	20,767	305,450	0.068	-2.688	-	-	170	20,767	
9/30/2020	5,526	2,283,367	305,450	7.475	2.012	-	-	5,526	2,283,367	1
10/1/2020	1,956	130,091	305,450	0.426	-0.854	-	-	1,956	130,091	
10/2/2020	2,624	29,784	305,450	0.098	-2.328	-	-	2,624	29,784	
10/3/2020	17	815	305,450	0.003	-5.926	-	-	17	815	
10/4/2020	452	22,665	305,450	0.074	-2.601	-	-	452	22,665	
10/5/2020	40	10,812	305,450	0.035	-3.341	-	-	40	10,812	
10/6/2020	84	8,810	305,450	0.029	-3.546	-	-	84	8,810	
10/7/2020	201	22,140	305,450	0.072	-2.624	-	-	201	22,140	
10/8/2020	611	80,779	305,450	0.264	-1.330	-	-	611	80,779	
10/9/2020	54	5,794	305,450	0.019	-3.965	-	-	54	5,794	
10/10/2020	57	4,922	305,450	0.016	-4.128	-	-	57	4,922	
10/11/2020	115	5,369	305,450	0.018	-4.041	-	-	115	5,369	
10/12/2020	2,152	165,368	305,450	0.541	-0.614	558	89,280	1,594	76,088	
10/13/2020	163	17,122	305,450	0.056	-2.881	-	-	163	17,122	
10/14/2020	175	14,476	305,450	0.047	-3.049	-	-	175	14,476	
10/15/2020	908	99,216	305,450	0.325	-1.124	-	-	908	99,216	
10/16/2020	63	5,146	305,450	0.017	-4.084	-	-	63	5,146	
10/17/2020	132	13,653	305,450	0.045	-3.108	-	-	132	13,653	
10/18/2020	57	2,777	305,450	0.009	-4.700	-	-	57	2,777	
10/19/2020	493	51,142	305,450	0.167	-1.787	-	-	493	51,142	
10/20/2020	118	14,632	305,450	0.048	-3.039	-	-	118	14,632	
10/21/2020	3,452	327,409	305,450	1.072	0.069	-	-	3,452	327,409	
10/22/2020	217	27,098	305,450	0.089	-2.422	-	-	217	27,098	
10/23/2020	472	90,114	305,450	0.295	-1.221	-	-	472	90,114	
10/24/2020	33	3,066	305,450	0.010	-4.601	-	-	33	3,066	
10/25/2020	137	14,394	305,450	0.047	-3.055	-	-	137	14,394	
10/26/2020	94	8,264	305,450	0.027	-3.610	-	-	94	8,264	
10/27/2020	5,793	302,918	305,450	0.992	-0.008	-	-	5,793	302,918	
10/28/2020	724	25,561	305,450	0.084	-2.481	-	-	724	25,561	
10/29/2020	79	22,588	305,450	0.074	-2.604	-	-	79	22,588	
10/30/2020	73	7,211	305,450	0.024	-3.746	-	-	73	7,211	
10/31/2020	55	6,309	305,450	0.021	-3.880	-	-	55	6,309	
11/1/2020	1,148	220,823	305,450	0.723	-0.324	-	-	1,148	220,823	
11/2/2020	3,840	222,387	305,450	0.728	-0.317	-	-	3,840	222,387	
11/3/2020	101	8,349	305,450	0.027	-3.600	-	-	101	8,349	
11/4/2020	53	4,965	305,450	0.016	-4.119	-	-	53	4,965	
11/5/2020	98	8,210	305,450	0.027	-3.616	-	-	98	8,210	
11/6/2020	90	15,392	305,450	0.050	-2.988	-	-	90	15,392	
11/7/2020	133	11,341	305,450	0.037	-3.293	-	-	133	11,341	
11/8/2020	80	4,936	305,450	0.016	-4.125	-	-	80	4,936	
11/9/2020	73	3,743	305,450	0.012	-4.402	-	-	73	3,743	
11/10/2020	145	16,819	305,450	0.055	-2.899	-	-	145	16,819	
11/11/2020	100	10,547	305,450	0.035	-3.366	-	-	100	10,547	
11/12/2020	106	7,114	305,450	0.023	-3.760	-	-	106	7,114	
11/13/2020	78	12,920	305,450	0.042	-3.163	-	-	78	12,920	
11/14/2020	4	285	305,450	0.001	-6.977	-	-	4	285	
11/15/2020	14,136	3,752,058	305,450	12.284	2.508	2,752	381,087	11,384	3,370,971	1

YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

Major Event Day Thresholds ("TMED") Calculations - TE

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR
Work Paper 1

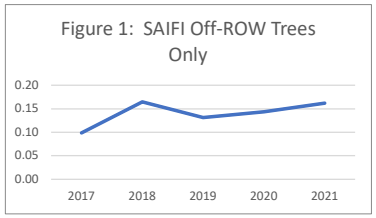
Date	Customers Affected	Customer Minutes	Average Customers Served	Daily SAIDI	Ln SAIDI	Customers Affected (T)	Customer Minutes (T)	Customers Affected w/o T	Customer Minutes w/o T	MED NEW RULE
A	B	C	D	E = C/D	F = Nat Log (E)					G 1 = MED
11/16/2020	237	64,526	305,450	0.211	-1.555	-	-	237	64,526	
11/17/2020	4,158	92,769	305,450	0.304	-1.192	-	-	4,158	92,769	
11/18/2020	333	41,074	305,450	0.134	-2.006	-	-	333	41,074	
11/19/2020	4,268	439,593	305,450	1.439	0.364	-	-	4,268	439,593	
11/20/2020	387	46,218	305,450	0.151	-1.888	-	-	387	46,218	
11/21/2020	40	1,979	305,450	0.006	-5.039	-	-	40	1,979	
11/22/2020	3,742	530,637	305,450	1.737	0.552	-	-	3,742	530,637	
11/23/2020	23	2,329	305,450	0.008	-4.876	-	-	23	2,329	
11/24/2020	129	18,081	305,450	0.059	-2.827	-	-	129	18,081	
11/25/2020	38	15,722	305,450	0.051	-2.967	-	-	38	15,722	
11/26/2020	375	29,197	305,450	0.096	-2.348	-	-	375	29,197	
11/27/2020	16	1,040	305,450	0.003	-5.683	-	-	16	1,040	
11/28/2020	19	1,428	305,450	0.005	-5.366	-	-	19	1,428	
11/29/2020	52	2,834	305,450	0.009	-4.680	-	-	52	2,834	
11/30/2020	4,313	182,438	305,450	0.597	-0.515	-	-	4,313	182,438	
12/1/2020	45	7,176	305,450	0.023	-3.751	-	-	45	7,176	
12/2/2020	84	34,365	305,450	0.113	-2.185	-	-	84	34,365	
12/3/2020	14	744	305,450	0.002	-6.018	-	-	14	744	
12/4/2020	50	1,845	305,450	0.006	-5.109	-	-	50	1,845	
12/5/2020	347	33,114	305,450	0.108	-2.222	-	-	347	33,114	
12/6/2020	68	7,620	305,450	0.025	-3.691	-	-	68	7,620	
12/7/2020	29	1,772	305,450	0.006	-5.150	-	-	29	1,772	
12/8/2020	1,666	148,592	305,450	0.486	-0.721	-	-	1,666	148,592	
12/9/2020	67	6,358	305,450	0.021	-3.872	-	-	67	6,358	
12/10/2020	653	40,449	305,450	0.132	-2.022	-	-	653	40,449	
12/11/2020	752	35,025	305,450	0.115	-2.166	-	-	752	35,025	
12/12/2020	487	138,437	305,450	0.453	-0.791	-	-	487	138,437	
12/13/2020	27	1,689	305,450	0.006	-5.198	-	-	27	1,689	
12/14/2020	33	3,980	305,450	0.013	-4.341	-	-	33	3,980	
12/15/2020	242	7,248	305,450	0.024	-3.741	-	-	242	7,248	
12/16/2020	237	39,781	305,450	0.130	-2.038	-	-	237	39,781	
12/17/2020	12	3,506	305,450	0.011	-4.467	-	-	12	3,506	
12/18/2020	482	45,417	305,450	0.149	-1.906	-	-	482	45,417	
12/19/2020	86	10,230	305,450	0.033	-3.396	-	-	86	10,230	
12/20/2020	91	20,157	305,450	0.066	-2.718	-	-	91	20,157	
12/21/2020	26	1,743	305,450	0.006	-5.166	-	-	26	1,743	
12/22/2020	70	10,800	305,450	0.035	-3.342	-	-	70	10,800	
12/23/2020	39	4,727	305,450	0.015	-4.168	-	-	39	4,727	
12/24/2020	3,986	237,182	305,450	0.777	-0.253	-	-	3,986	237,182	
12/25/2020	127	21,016	305,450	0.069	-2.677	-	-	127	21,016	
12/26/2020	3	611	305,450	0.002	-6.214	-	-	3	611	
12/27/2020	121	11,578	305,450	0.038	-3.273	-	-	121	11,578	
12/28/2020	66	7,294	305,450	0.024	-3.735	-	-	66	7,294	
12/29/2020	25	2,445	305,450	0.008	-4.828	-	-	25	2,445	
12/30/2020	1,976	63,713	305,450	0.209	-1.567	-	-	1,976	63,713	
12/31/2020	29	4,784	305,450	0.016	-4.157	-	-	29	4,784	
1/1/2021	2,916	1,012,903	306,626	3.303	1.195	-	-	2,916	1,012,903	

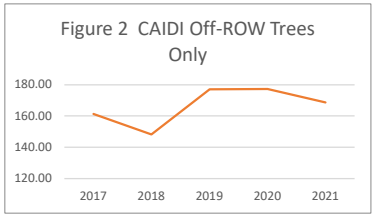
YEAR	Alpha	Beta	TMED NEW RULE
G	H = Mean (F)*	I = Standard Dev. of (F)*	J = e(alpha + 2.5 Beta)

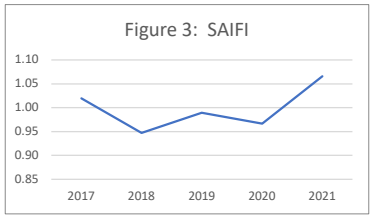
Reliability Results - CEI

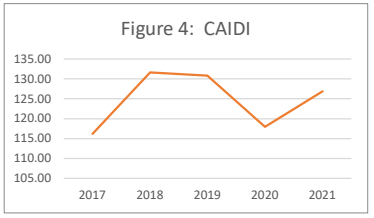
Case Nos. 20-0580-EL-ESS,
20-0581-EL-WVR
Work Paper 2

Line No.	Description	Notes	2017	2018	2019	2020	2021	Total	Average	Proposed Standard	Standard Deviation (SD)	Avg+2SD	SAIFI Rainfall Adjustment Factor (See Work Paper 3)	SAIFI Rainfall Adjustment + Avg+2SD
1	Customers Served		731,153	731,388	731,209	735,260	734,672							
2	Customer Minutes		86,651,416	91,194,758	94,638,277	83,839,750	99,319,671	455,643,872						
3	Customers Interrupted		745,797	692,682	723,547	710,855	782,926	3,655,807						
4	SAIFI	Line 3 / Line 1	1.02	0.95	0.99	0.97	1.07		1.00	1.13	0.04	1.08	0.0092	1.13
5	CAIDI	Line 2 / Line 3	116.19	131.65	130.80	117.94	126.86		124.69	137.6	6.46	137.60		
6	Customers Interrupted w/o Off-ROW Tree Data		673,775	572,179	627,242	604,945	664,172	3,142,313						
7	Customers Minutes w/o Off-ROW Tree Data		75,031,582	73,338,086	77,596,710	65,066,398	79,292,600	370,325,376						
8	SAIFI w/o Off-ROW Tree Data	Line 6 / Line 1	0.92	0.78	0.86	0.82	0.90		0.86					
9	CAIDI w/o Off- ROW Tree Data	Line 7 / Line 6	111.36	128.17	123.71	107.56	119.39		118.04					
10	Customers Interrupted Off-ROW Trees Only		72,022	120,503	96,305	105,910	118,754	513,494						
11	Customers Minutes Off-ROW Trees Only		11,619,834	17,856,672	17,041,567	18,773,352	20,027,071	85,318,496						
12	SAIFI Off-ROW Trees Only	Line 10 / Line 1	0.10	0.16	0.13	0.14	0.16		0.14					
13	CAIDI Off-ROW Trees Only	Line 11 / Line 10	161.34	148.18	176.95	177.26	168.64		166.48					









NOTES

(1) Line 8: the average SAIFI, excluding off-ROW tree outages 2017-2021.
(2) Line 12: the average SAIFI attributed to off-ROW tree outages from 2017-2021.
(3) Line 9: CAIDI, excluding off-ROW tree outages 2017-2021.
(4) Line 13: CAIDI attributed to off-ROW tree outages 2017-2021.
(5) Figure 1: SAIFI Trend line for off-ROW tree outages.
(6) Figure 2: CAIDI Trend line for off-ROW tree outages.
(7) Figure 3: Overall SAIFI Trend line.
(8) Figure 4: Overall CAIDI Trend line.
(9) The rainfall adjustment is calculated from the historical rainfall data and multiplied by five to account for the likelihood that this trend will continue and to be consistent with the five years of historical data included in the baseline.

NARRATIVE

(1) This Work Paper shows how CEI's historical SAIFI and CAIDI values and averages from 2017 through 2021 were calculated.

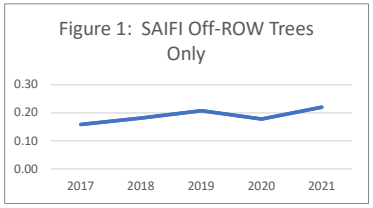
ASSUMPTIONS

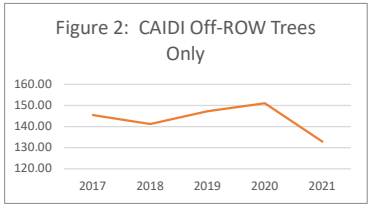
(1) Reliability calculations exclude MEDs.
(2) Proposed standards based on CEI's five-year average under the new rule.

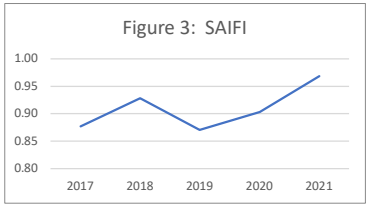
Reliability Results - OE

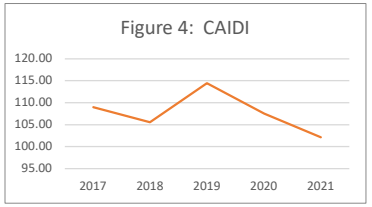
Case Nos. 20-0580-EL-ESS,
20-0581-EL-WVR
Work Paper 2

Line No.	Description	Notes	2017	2018	2019	2020	2021	Total	Average	Proposed Standard	Standard Deviation (SD)	Avg+2SD	SAIFI Rainfall Adjustment Factor (See Work Paper 3)	SAIFI Rainfall Adjustment + Avg+2SD
1	Customers Served		1,036,832	1,040,109	1,042,023	1,046,570	1,049,301							
2	Customer Minutes		99,094,390	101,863,792	103,789,224	101,640,219	103,777,107	510,164,732						
3	Customers Interrupted		909,340	965,305	906,827	945,039	1,016,260	4,742,771						
4	SAIFI	Line 3 / Line 1	0.88	0.93	0.87	0.90	0.97		0.91	1.00	0.04	0.98	0.0045	1.00
5	CAIDI	Line 2 / Line 3	108.97	105.52	114.45	107.55	102.12		107.72	115.90	4.08	115.88		
6	Customers Interrupted w/o Off-ROW Tree Data		744,746	776,430	690,798	759,179	785,531	3,756,684						
7	Customers Minutes w/o Off-ROW Tree Data		75,151,063	75,214,124	71,982,165	73,555,373	73,125,381	369,028,106						
8	SAIFI w/o Off-ROW Tree Data	Line 6 / Line 1	0.72	0.75	0.66	0.73	0.75		0.72					
9	CAIDI w/o Off- ROW Tree Data	Line 7 / Line 6	100.91	96.87	104.20	96.89	93.09		98.39					
10	Customers Interrupted Off-ROW Trees Only		164,594	188,875	216,029	185,860	230,729	986,087						
11	Customers Minutes Off-ROW Trees Only		23,943,327	26,649,668	31,807,059	28,084,846	30,651,726	141,136,626						
12	SAIFI Off-ROW Trees Only	Line 10 / Line 1	0.16	0.18	0.21	0.18	0.22		0.19					
13	CAIDI Off-ROW Trees Only	Line 11 / Line 10	145.47	141.10	147.24	151.11	132.85		143.55					









NOTES

(1) Line 8: the average SAIFI, excluding off-ROW tree outages 2017-2021.
(2) Line 12: the average SAIFI attributed to off-ROW tree outages from 2017-2021.
(3) Line 9: CAIDI, excluding off-ROW tree outages 2017-2021.
(4) Line 13: CAIDI attributed to off-ROW tree outages 2017-2021.
(5) Figure 1: SAIFI Trend line for off-ROW tree outages.
(6) Figure 2: CAIDI Trend line for off-ROW tree outages.
(7) Figure 3: Overall SAIFI Trend line.
(8) Figure 4: Overall CAIDI Trend line.
(9) The rainfall adjustment is calculated from the historical rainfall data and multiplied by five to account for the likelihood that this trend will continue and to be consistent with the five years of historical data included in the baseline.

NARRATIVE

(1) This Work Paper shows how OE's historical SAIFI and CAIDI values and averages from 2017 through 2021 were calculated.

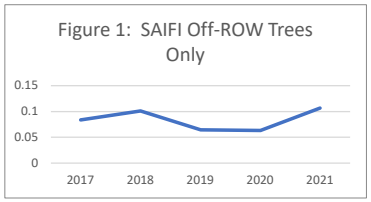
ASSUMPTIONS

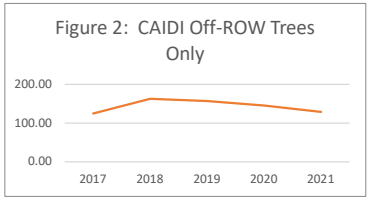
(1) Reliability calculations exclude MEDs.
(2) Proposed standards based on OE's five-year average under the new rule.

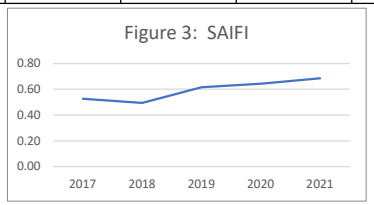
Reliability Results - TE

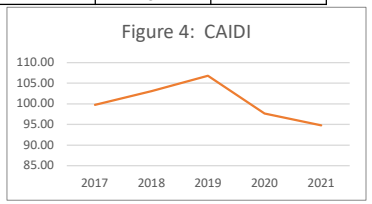
Case Nos. 20-0580-EL-ESS,
20-0581-EL-WVR
Work Paper 2

Line No.	Description	Notes	2017	2018	2019	2020	2021	Total	Average	Proposed Standard	Standard Deviation (SD)	Avg+2SD	SAIFI Rainfall Adjustment Factor (See Work Paper 3)	SAIFI Rainfall Adjustment + Avg+2SD
1	Customers Served		302,315	301,949	302,870	305,450	306,626							
2	Customer Minutes		15,891,718	15,370,048	19,925,737	19,211,204	19,901,402	90,300,109						
3	Customers Interrupted		159,265	149,129	186,574	196,749	210,035	901,752						
4	SAIFI	Line 3 / Line 1	0.53	0.49	0.62	0.64	0.68		0.59	0.76	0.07	0.74	0.0054	0.76
5	CAIDI	Line 2 / Line 3	99.78	103.07	106.80	97.64	94.75		100.41	108.8	4.19	108.80		
6	Customers Interrupted w/o Off-ROW Tree Data		139,751	129,952	154,374	171,566	186,852	782,495						
7	Customers Minutes w/o Off-ROW Tree Data		13,457,036	12,246,617	14,866,267	15,543,631	16,923,750	73,037,301						
8	SAIFI w/o Off-ROW Tree Data	Line 6 / Line 1	0.46	0.43	0.51	0.56	0.61		0.51					
9	CAIDI w/o Off- ROW Tree Data	Line 7 / Line 6	96.29	94.24	96.30	90.60	90.57		93.60					
10	Customers Interrupted Off-ROW Trees Only		19,514	19,177	32,200	25,183	23,183	119,257						
11	Customers Minutes Off-ROW Trees Only		2,434,682	3,123,431	5,059,470	3,667,573	2,977,652	17,262,808						
12	SAIFI Off-ROW Trees Only	Line 10 / Line 1	0.06	0.06	0.11	0.08	0.08		0.08					
13	CAIDI Off-ROW Trees Only	Line 11 / Line 10	124.77	162.87	157.13	145.64	128.44		143.77					









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(5) Figure 1: SAIFI Trend line for off-ROW tree outages.
(6) Figure 2: CAIDI Trend line for off-ROW tree outages.
(7) Figure 3: Overall SAIFI Trend line. The trend is increasing.
(8) Figure 4: Overall CAIDI Trend line.
(9) The rainfall adjustment is calculated from the historical rainfall data and multiplied by five to account for the likelihood that this trend will continue and to be consistent with the five years of historical data included in the baseline.

NARRATIVE

(1) This Work Paper shows how TE's historical SAIFI and CAIDI values and averages from 2017 through 2021 were calculated.

ASSUMPTIONS

(1) Reliability calculations exclude MEDs.
(2) Proposed standards based on TE's five-year average under the new rule.

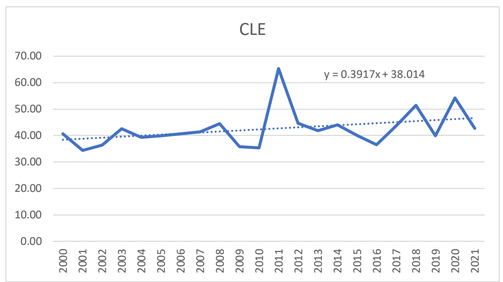
Precipitation Data (inches)

Case Nos. 20-0580-EL-ESS, 20-0581-EL-WVR

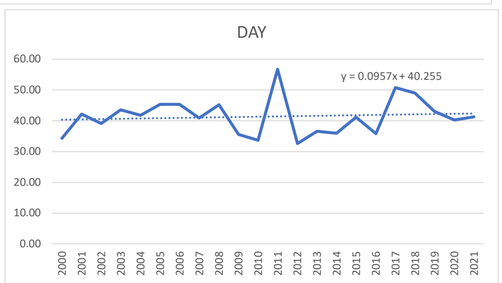
Work Paper 3

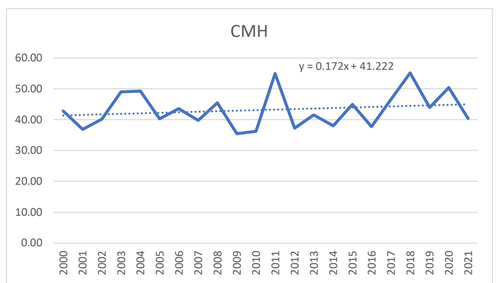
Station (Airport Code)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Average	Coefficient	Adjustment	OE Average
TOL	38.12	33.41	29.09	37.27	29.47	31.57	45.71	36.95	41.86	38.02	34.61	48.76	30.34	36.83	31.70	36.51	34.33	39.02	38.01	44.63	32.03	43.10	36.88	0.20	0.005423127	
CLE	40.59	34.38	36.38	42.50	39.39	39.87	40.64	41.44	44.49	35.76	35.40	65.32	44.62	41.85	44.05	40.07	36.47	43.80	51.47	39.98	54.21	42.72	42.52	0.39	0.009172547	
CAK	45.50	32.86	40.62	51.10	46.30	41.17	43.93	40.89	42.00	35.61	37.85	58.38	37.93	42.19	45.69	41.58	38.65	48.52	48.46	44.32	40.04	41.04	42.94	0.06	0.001397373	0.004482003
DAY	34.32	42.19	39.12	43.52	41.71	45.28	45.34	40.89	45.25	35.55	33.60	56.72	32.59	36.53	35.98	41.12	35.78	50.83	48.99	42.97	40.23	41.31	41.36	0.10	0.002418061	
CMH	42.89	36.85	40.21	49.03	49.27	40.26	43.63	39.86	45.44	35.48	36.26	54.96	37.27	41.55	38.09	45.00	37.78	46.61	55.18	43.94	50.45	40.41	43.20	0.17	0.003935102	
YNG	36.63	29.53	40.72	46.00	45.22	40.41	48.34	39.76	45.72	35.21	38.80	54.01	45.09	39.13	39.27	44.38	44.34	43.97	50.97	49.73	48.67	45.22	43.23	0.44	0.010177475	

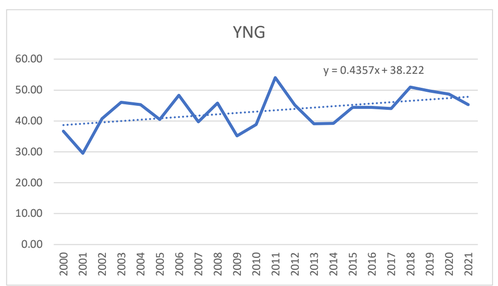
CEI

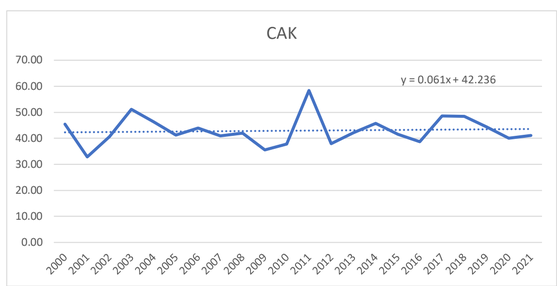


OE

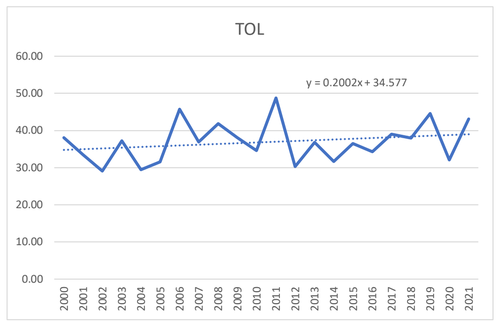








TE



NARRATIVE

(1) Between 2000 and 2021, the Companies' observed meaningful increases the amount of rainfall per year. The Companies have also observed an increasing trend in overall SAIFI and SAIFI due to off-ROW outages. Therefore, the Companies propose, an additional weather adjustment above the two standard deviations for SAIFI to account for a 22 year increasing weather increasing that is not fully accounted for in the five year average.

ASSUMPTIONS

(1) While no exact detailed formal analysis has been performed about tree growth and rainfall, the Companies have assumed trees have growth with more rainfall. The other factor that has been provided anecdotally by field personnel is they see more trees fall over off the ROW due to saturated ground condition. The increase in off-ROW tree outages could be attributed to the increasing trend in above average rainfall. The wetter ground conditions increase the likelihood of trees, including healthy trees, uprooting and falling over.

Company	SAIFI - Residential	SAIFI- Commercial	SAIFI - Average	Proposed SAIFI
CEI	1.75	1.72	1.75	1.13
OE	1.91	1.87	1.91	1.00
TE	1.33	1.67	1.37	0.76

Company	CAIDI - Residential (non-storm)	CAIDI- Commercial (non-storm)	CAIDI - median (non-storm)	CAIDI - Residential (storm)	CAIDI- Commercial (storm)	CAIDI median (storm)	Proposed CAIDI
CEI	120.00	120.00	120.00	360.00	180.00	340.20	137.6
OE	120.00	120.00	120.00	360.00	180.00	340.20	115.9
TE	120.00	120.00	120.00	360.00	180.00	340.20	108.8

NARRATIVE

(1) Survey results were provided by TRIAD Research Group, a third-party vendor, that conducted the survey on the Companies' behalf.

ASSUMPTIONS

(1) The medians were calculated by weighting the survey results by customer class using customer counts (89% Residential and 11% Commercial) from the Companies' 2021 FERC Form 1.

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in

Case No(s). 20-0580-EL-ESS, 20-0581-EL-WVR

Summary: Application Revised Application to Establish Company-Specific Minimum Reliability Performance Standards electronically filed by Ms. Christine E. Watchorn on behalf of Ohio Edison Company and The Cleveland Electric Illuminating Company and The Toledo Edison Company