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**From:** Michael Sheehan <Michael.Sheehan@libertyutilities.com>  
**Sent:** Monday, March 1, 2021 11:20 AM  
**To:** Fabrizio, Lynn  
**Subject:** RE: DE 06-107 - March 2020 filing for storm cost recovery  
**Attachments:** Correspondence #2 6-2-2013 Storm.pdf; 1748 2014-05-01 Annual Storm Fund Report 2013 Pkg.pdf; Correspondence #1 6-2-2013 Storm.pdf

**EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.**

Lynn,

In Docket DG 06-107, as indicated in Exhibit GSE-7 of the Granite State Rate Plan, the PUC definition of “major” storms will be used to qualify storms. For Granite State, a “major” storm is a severe weather event or events causing 30 concurrent troubles and 15% of customers interrupted, or 45 concurrent troubles. Troubles are defined as interruption events occurring on either primary or secondary lines.

“Concurrent” events are those events that occur from the time the first outage is experienced until the last outage is experienced for primary and secondary lines. Qualifying storms are thus those for which there were 30 concurrent troubles and 15% of customers interrupted, or 45 concurrent troubles, from the time of the first outage experienced until the last outage is experienced.

For example, the January 9, 2019, storm experienced its first outage at 07:03 on 1/9/2019, as shown on line 1 in Attachment 4, page 3 of the storm audit filing. The last outage experienced was at 22:10 on 1/9/2019, as shown on line 55 on page 4. During that period, the Company experienced 56 concurrent events.

This application of the major storm definitions goes back to the days when National Grid owned Granite State Electric, and continued when Liberty purchased the Company. Attached is an example from the 2013 Storm Fund filing where the June 2, 2013, storm experienced 56 events during the storm using the above definition. The attached internal correspondence provides further documentation of how the Company interprets concurrent events. The Company is also including the 2013 Storm Fund filing for reference.

The storms in the 2020 filing qualify as major storms under this long-standing (and Commission-approved) standard.

Let me know if you have further questions.

Mike

Michael Sheehan | [Liberty Utilities \(New Hampshire\)](#) | Senior Counsel  
P: 603-724-2135 | C: 603-425-8085 | E: [Michael.Sheehan@libertyutilities.com](mailto:Michael.Sheehan@libertyutilities.com)

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**From:** Fabrizio, Lynn [mailto:Lynn.H.Fabrizio@puc.nh.gov]  
**Sent:** Monday, March 1, 2021 10:25 AM  
**To:** Michael Sheehan <Michael.Sheehan@libertyutilities.com>  
**Subject:** RE: DE 06-107 - March 2020 filing for storm cost recovery

Hi Mike – just following up on Friday’s email exchange re: DE 06-107... I think it would be helpful if you could clarify for us how each of the three storms are eligible for cost recovery through the storm fund based on the Commission’s definition of a major qualifying storm and explain the methodology that the Company applied. That would seem to be the most straightforward way to get us on the same page. Thanks – Lynn

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**From:** Michael Sheehan <[Michael.Sheehan@libertyutilities.com](mailto:Michael.Sheehan@libertyutilities.com)>  
**Sent:** Friday, February 26, 2021 3:49 PM  
**To:** Fabrizio, Lynn <[Lynn.H.Fabrizio@puc.nh.gov](mailto:Lynn.H.Fabrizio@puc.nh.gov)>  
**Cc:** Demmer, Kurt <[Kurt.F.Demmer@puc.nh.gov](mailto:Kurt.F.Demmer@puc.nh.gov)>; Chagnon, Richard <[Richard.T.Chagnon@puc.nh.gov](mailto:Richard.T.Chagnon@puc.nh.gov)>  
**Subject:** RE: DE 06-107 - March 2020 filing for storm cost recovery

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Lynn,

It appears from your email that Staff is questioning Liberty's interpretation of what constitutes "concurrent" troubles when determining whether a storm meets the relevant thresholds. Understand that we have applied the same definition of "concurrent" in filing our annual storm reports since at least 2013, which reports supported the Company's withdrawal of funds from the storm fund. Staff has never previously questioned or challenged how we apply the concurrent rule to a particular storm (indeed, Staff is well aware of how we have always treated this issue). And the Commission has effectively approved this application of the "concurrent trouble" rule through the operation of the storm fund. Thus, it is thus not something that can be changed retroactively.

Given that precedent, it would be inappropriate for Staff to apply a new interpretation of concurrent to our 2019-storm report (and our upcoming 2020 storm report as it addresses 2020 storms). I trust Staff's recommendation will not suggest that the Company erred in following this long-standing practice in the 2019 storm report.

To the extent Staff wishes to modify how Liberty counts troubles for storm fund purposes going forward, that is a fair conversation to have and we'd be happy to discuss.

Finally, it's unfortunate that we were given 24 hours to respond to an important issue that has been before Staff for almost a year, with no opportunity for a discussion that would have considered the above information and would have allowed an exchange of thoughts for how best to go forward. We would still welcome the opportunity for such a discussion as we believe it would prove helpful for all involved.

Have a nice weekend.

Mike

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Michael Sheehan | [Liberty Utilities \(New Hampshire\)](#) | Senior Counsel  
P: 603-724-2135 | C: 603-425-8085 | E: [Michael.Sheehan@libertyutilities.com](mailto:Michael.Sheehan@libertyutilities.com)

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**From:** Fabrizio, Lynn [<mailto:Lynn.H.Fabrizio@puc.nh.gov>]  
**Sent:** Thursday, February 25, 2021 3:45 PM  
**To:** Michael Sheehan <[Michael.Sheehan@libertyutilities.com](mailto:Michael.Sheehan@libertyutilities.com)>  
**Cc:** Demmer, Kurt <[Kurt.F.Demmer@puc.nh.gov](mailto:Kurt.F.Demmer@puc.nh.gov)>; Chagnon, Richard <[Richard.T.Chagnon@puc.nh.gov](mailto:Richard.T.Chagnon@puc.nh.gov)>  
**Subject:** DE 06-107 - March 2020 filing for storm cost recovery

Hi Mike – FYI, Staff is unable to conclude that Liberty's storm recovery filing of 3/2020 in DE 06-107 meets the 45 concurrent events criterion for all three storm events (January 9 2019, October 17 2019, and October 31 2019) based on the info provided by the Company. If you have supporting information that you did not include in the 3/2020 filing and that supports the Company's qualifying storm conclusion, we would welcome that data before we file a Staff recommendation. We will be filing the recommendation next week, so if you have such info, please forward it by COB

tomorrow (we assume that there was info compiled in support of the report, so that this would not be burdensome for the Company to provide). Thank you! - Lynn

Lynn Fabrizio  
Staff Attorney  
NH Public Utilities Commission  
[lynn.h.fabrizio@puc.nh.gov](mailto:lynn.h.fabrizio@puc.nh.gov)

## Heather Tebbetts

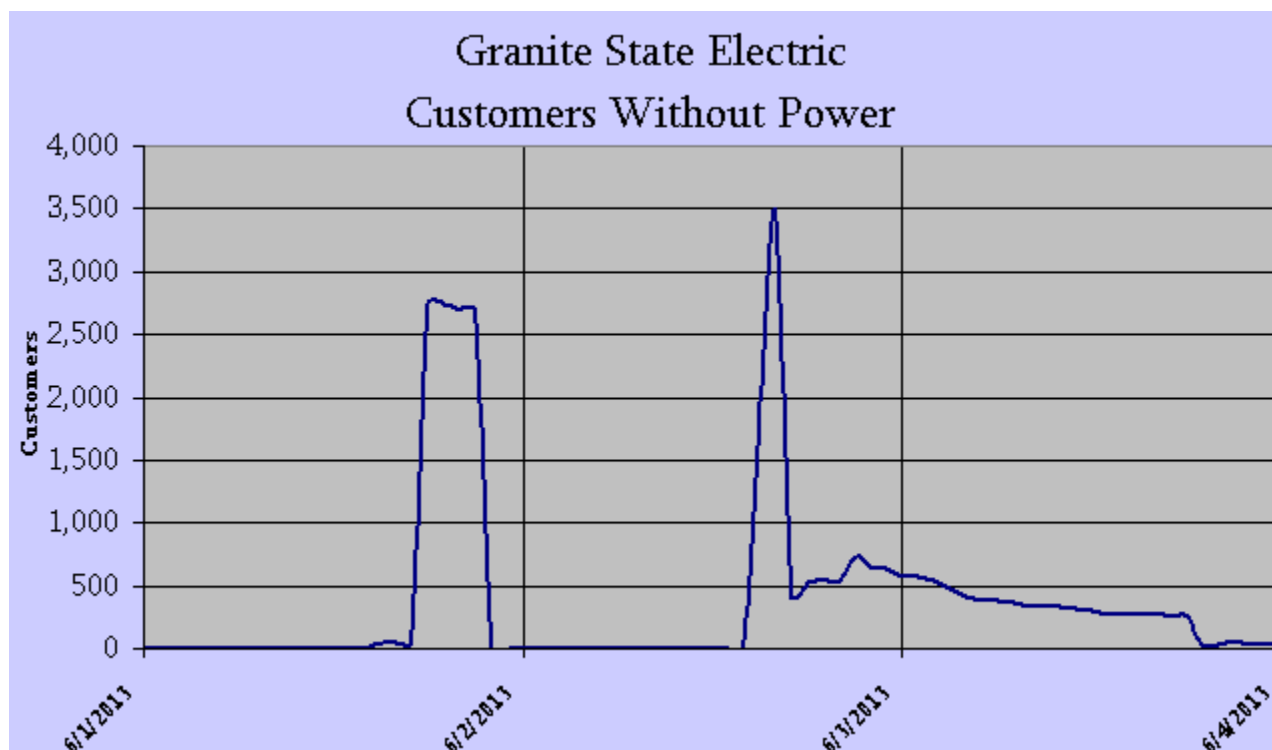
**From:** Schein, Jeremy <Jeremy.Schein@nationalgrid.com>  
**Sent:** Tuesday, July 2, 2013 12:10 PM  
**To:** Joel Rivera  
**Subject:** RE: Storm 6/1 - 6/3  
**Attachments:** daily totals with max duration - reportable totals.sql; Restorations over Time - Reportable Totals - Hourly.sql; Storm Restoration Data Extended - Event Totals.sql

The way the rules are written, usually it's pretty clear if we've met the NH storm criteria (30 events + 15% CI or 45 events). We traditionally interpret "concurrent troubles" to mean "IDS events on the same day"

I usually start by checking the reliability by day with no events excluded:

CO_NAME	DY	EVTS	CI	CMI	CS	SAIFI	SAIDI	CAIDI
Granite State Electric	05/30/2013	1	4	520	41804	0.000096	0.0124	130
Granite State Electric	05/31/2013	0	0	0	41804	0	0	0
Granite State Electric	06/01/2013	3	2747	527655	41735	0.06582	12.643	192.0841
Granite State Electric	06/02/2013	43	3862	626720	41735	0.092536	15.0167	162.2786
Granite State Electric	06/03/2013	18	80	18500	41735	0.001917	0.4433	231.25
Granite State Electric	06/04/2013	1	1	272	41735	0.000024	0.0065	272

While we didn't hit 45 events on 6/2, at this point I would start checking the events on 6/1 and 6/3 to see if there are any that we can reasonably consider to have been part of the storm so that we can show that we did hit 45 events over a "storm period". One way is to run the hourly active CI chart, which clearly shows us that the events on 6/1 were unrelated, but that the events on 6/2 and 6/3 can definitely be thought of as a combined storm period (which did have over 45 events)



Then finally I'll prepare some info on the storm totals:

Area	Granite State Electric
Start Time	2013/06/02 00:00:00
End Time	2013/06/04 00:00:00
Storm Duration	1D 8H 23M
Cust. Out. Minutes	645,220
Events	61
Total Customer Outages	3,942
Peak Customer Outages	3,445
Customers Served	41,735
Total Customer Outages Percent	9.4%
Peak Customer Outages Percent	8.3%
24 Hour Events	5
24 Hour Cust. Int.	33
Time of Peak Customer Out.	06/02/2013 3:48:54 PM
Time of Last Customer Restored	06/03/2013 11:12:00 PM
Min Cust Rest Check	26
70% of Total Cust. Rest.	06/02/2013 3:03:11 PM
90% of Total Cust. Rest.	06/02/2013 5:40:51 PM
70% of Peak Cust. Rest.	06/02/2013 4:29:07 PM
90% of Peak Cust. Rest.	06/02/2013 11:37:53 PM

The last step is to submit a recommendation to Cheri and Chris. Sometimes they will ask for more info. After they approve, then for NH we mark the individual IDS events which are considered to be storm events.

**Jeremy Schein**

Reliability Engineer - Customer Reliability  
National Grid USA  
40 Sylvan Rd., Waltham, MA 02451

Office: (781) 907-3140  
Cell: (516) 578-7287

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**From:** Joel Rivera [mailto:Joel.Rivera@libertyutilities.com]  
**Sent:** Monday, July 01, 2013 7:34 AM  
**To:** Schein, Jeremy  
**Subject:** FW: Storm 6/1 - 6/3

Hello Jeremy

Maybe you can guide me on how you determine whether or not this is an excludable event?

**JOEL A. RIVERA**



Electric Planning Engineer  
P: 603-952-2938 | C: 603-327-9646  
E: [Joel.Rivera@libertyutilities.com](mailto:Joel.Rivera@libertyutilities.com)

9 Lowell Rd. Salem, NH 03079

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**From:** Bodo, Richard J. [<mailto:Richard.Bodo@nationalgrid.com>]  
**Sent:** Wednesday, June 26, 2013 1:34 PM  
**To:** Schein, Jeremy; Chris Brouillard  
**Cc:** Gonnynor, Jonathan R.; Kurt Demmer; Joel Rivera  
**Subject:** RE: Storm 6/1 - 6/3

I have completed reviewing all events, all areas for 6/1, 6/2, 6/3.

Rich

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**From:** Schein, Jeremy  
**Sent:** Wednesday, June 12, 2013 12:54 PM  
**To:** Brouillard, Chris  
**Cc:** Gonnynor, Jonathan R.; Bodo, Richard J.; Demmer, Kurt; Rivera, Joel  
**Subject:** RE: Storm 6/1 - 6/3

Good to know - it's definitely a big reliability issue

Rich, let us know when you're done reviewing the events, and we'll see if it still qualifies for a major storm.

**Jeremy Schein**  
Reliability Engineer - Customer Reliability  
National Grid USA  
40 Sylvan Rd., Waltham, MA 02451

Office: (781) 907-3140  
Cell: (516) 578-7287

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**From:** Chris Brouillard [<mailto:Christian.Brouillard@libertyutilities.com>]  
**Sent:** Wednesday, June 12, 2013 12:18 PM  
**To:** Schein, Jeremy  
**Cc:** Gonnynor, Jonathan R.; Bodo, Richard J.; Demmer, Kurt; Rivera, Joel  
**Subject:** RE: Storm 6/1 - 6/3

The Enfield project is currently completing the final engineering and permitting stage. Construction of the second supply line along the ROW is expected to begin in September. The second supply to Enfield should be in service for Summer of 2014.

*Chris*

**Chris Brouillard** | **Liberty Utilities** | Director of Engineering  
P: 603-952-2913 | C: 603-475-7965  
E: [Chris.Brouillard@libertyutilities.com](mailto:Chris.Brouillard@libertyutilities.com)  
9 Lowell Rd., Salem NH 03079

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**From:** Schein, Jeremy [<mailto:Jeremy.Schein@nationalgrid.com>]

**Sent:** Wednesday, June 12, 2013 10:49 AM  
**To:** Chris Brouillard  
**Cc:** Gonynor, Jonathan R.; Bodo, Richard J.; Kurt Demmer; Joel Rivera  
**Subject:** Storm 6/1 - 6/3

I just took a look at the storm 6/1 - 6/3...based on the preliminary data in IDS it might qualify as an excludable major storm based on the "45 concurrent troubles" rule, although I suspect that Rich has not started to review any of these events...at least a few of them seem like duplicates, especially on the 39L2, 7L1 and 6L3.

It looks like one of the largest events during this period, 7744737, was a lockout on the 41-1L1 which took out the 7L1 and 7L2 (supply to Enfield sub)...what's the status on the project to extend the 1L4 to prevent this from happening? I don't think I've heard anything about that project in over a year.

<b>Area</b>	Granite State Electric
<b>Start Time</b>	2013/06/01 00:00:00
<b>End Time</b>	2013/06/04 00:00:00
<b>Storm Duration</b>	2D 9H 8M
<b>Cust. Out. Minutes</b>	989,542
<b>Events</b>	65
<b>Total Customer Outages</b>	5,022
<b>Peak Customer Outages</b>	2,542
<b>Customers Served</b>	41,735
<b>Total Customer Outages Percent</b>	12.03%
<b>Peak Customer Outages Percent</b>	6.09%

**Jeremy Schein**  
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## Heather Tebbetts

**From:** Schein, Jeremy <Jeremy.Schein@nationalgrid.com>  
**Sent:** Tuesday, July 2, 2013 1:25 PM  
**To:** Warren, Cheri; Chris Brouillard  
**Cc:** Gonynor, Jonathan R.; Wilcox, Robert; Joel Rivera; Kurt Demmer  
**Subject:** NH storm recommendation - June 2, 2013

Hi Cheri and Chris,

I recommend marking all events starting June 2 and June 3 as a major storm period for Liberty/Granite State Electric.

Per the Keyspan Merger Agreement, ***a "Major Storm" shall be defined as a severe weather event or events causing 30 concurrent troubles and 15% of customers interrupted, or 45 concurrent troubles. (Troubles are defined as interruption events occurring on either primary or secondary lines).***

We have traditionally interpreted "concurrent trouble" to mean "IDS events on the same day".

We did not hit 45 events on either day. However, there were 56 events during the 24 hours beginning at 2 pm on June 2, and there were active customer interruptions throughout the period.

I do not think it would be appropriate to include the Lebanon event on 6/1 (which affected 4 feeders) as part of the storm period; this event was fully resolved by 9 PM on June 1, and there were over 12 hours without any active customer interruptions between 1 am and 1 pm on June 2. This can be seen in the attached Excel file.

Note that none of the days qualify as IEEE 1366 MEDs - the SAIDI threshold for 2013 is 25.33 minutes.

Please let me know if you have any questions.

CO_NAME	DY	EVTS	CI	CMI	CS	SAIFI	SAIDI	CAIDI	
Granite State Electric	05/30/2013	1			520	41,804	0.000096	0.0124	130
				4					
Granite State Electric	05/31/2013	0		-	-	41,804	0	0	0
Granite State Electric	06/01/2013	3	2,747	527,655		41,735	0.06582	12.643	192.0841
Granite State Electric	06/02/2013	43	3,862	626,720		41,735	0.092536	15.0167	162.2786
Granite State Electric	06/03/2013	18	80	18,500		41,735	0.001917	0.4433	231.25
Granite State Electric	06/04/2013	1			272	41,735	0.000024	0.0065	272
				1					



NH 06/02/2013 -  
 Gasphes four line a...  
 06/02/2013 event  
 logs.xls  
 Summary tables  
 06/02/2013.xlsx

**Jeremy Schein**  
 Reliability Engineer - Customer Reliability  
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Stephen R. Hall  
Director, Regulatory & Government  
O: 603-328-2721  
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May 1, 2014

**Via ERF and US Mail**

Debra A. Howland  
Executive Director  
New Hampshire Public Utilities Commission  
21 South Fruit Street, Suite 10  
Concord, NH 03301

**Re: DG 06-107 Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities  
Annual Storm Fund Report – Calendar Year 2013**

Dear Ms. Howland:

In accordance with Order No. 24,777 dated July 12, 2007, enclosed for filing in the above mentioned docket please find Liberty Utilities' Annual Storm Fund Report. Please note this report has been filed via the Commission's Electronic Report Filing System.

Thank you for your assistance with this matter. Please do not hesitate to call if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Stephen R. Hall". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Stephen R. Hall

Enclosure



**Liberty Utilities (Granite State Electric) Corp.**

**ANNUAL STORM FUND REPORT  
CALENDAR YEAR 2013**

**May 1, 2014**

Liberty Utilities (Granite State Electric) Corp.  
d/b/a Liberty Utilities  
Annual Storm Fund Report  
Calendar Year 2013  
Page 1 of 1

**Liberty Utilities (Granite State Electric) Corp.  
Annual Storm Fund Report  
Calendar Year 2013**

**1. Introduction**

Liberty Utilities (Granite State Electric) Corp. (“Liberty Utilities” or the “Company”) is submitting the following Annual Storm Fund Recovery Report for 2013, in compliance with the Settlement Agreement in DG 06-107 approved by Order 24,777. Consistent with the Settlement Agreement in DG 06-107, this report: (1) provides a description of the storm; (2) provides a summary of the extent of the damage to the distribution system, including the number of outages and length of outages; (3) details the collections credited to the storm fund; and (4) provides the details of any qualifying storm costs that were charged to the fund during calendar year 2013.

**2. Annual Report of Storm Fund Activity**

Attachment 1 is a preliminary report of the annual storm fund activity, pending final accounting of storm costs incurred during calendar year 2013. This report shows the opening balance of the storm fund, monthly collections, including those in base rates and the Storm Recovery Adjustment Factor, monthly interest applied, preliminary qualifying storm costs charged to the storm fund, and the closing balance of the storm fund.

Attachment 2 shows the monthly detail of the preliminary storm-related charges applied to the storm fund during calendar year 2013 by individual storm event. Detailed descriptions and costs related to these qualifying storm fund storm events are provided in Attachments 3 and 4.

Liberty Utilities (Granite State Electric) Corp.  
d/b/a Liberty Utilities  
Annual Storm Fund Report  
Attachment 1  
Page 1 of 1

**Liberty Utilities (Granite State Electric) Corp.**  
**d/b/a Liberty Utilities**  
Annual Report of Storm Fund Activity  
For the Year Ended December 31, 2013 (Estimated)

Line	Month	Beginning Balance	Base Rate Contribution	SRA Factor Contribution 1/	Monthly Interest	Storm Charges	Ending Balance
		(a)	(b)	(c)	(d)	(e)	(f)
1	January-13	\$ (6,908,290)	\$ 10,000	\$ 179,645	\$ (18,394)	\$ 43,704	\$ (6,693,335)
2	February	(6,693,335)	10,000	181,502	\$ (17,977)	\$ (80,496)	\$ (6,600,306)
3	March	(6,600,306)	10,000	160,660	\$ (18,020)	\$ (277,451)	\$ (6,725,117)
4	April	(6,725,117)	10,000	162,013	\$ (17,866)	\$ 84,570	\$ (6,486,400)
5	May	(6,486,400)	10,000	163,777	\$ (17,390)	\$ (43,002)	\$ (6,373,015)
6	June	(6,373,015)	10,000	157,863	\$ (17,121)	\$ (65,177)	\$ (6,287,450)
7	July	(6,287,450)	10,000	216,194	\$ (16,841)	\$ (87,832)	\$ (6,165,929)
8	August	(6,165,929)	10,000	198,858	\$ (16,417)		\$ (5,973,488)
9	September	(5,973,488)	10,000	181,143	\$ (15,919)	\$ -	\$ (5,798,264)
10	October	(5,798,264)	10,000	152,064	\$ (15,484)	\$ -	\$ (5,651,683)
11	November	(5,651,683)	10,000	182,888	\$ (15,014)	\$ 23,484	\$ (5,450,325)
12	December	(5,450,325)	10,000	254,138	\$ (14,404)	\$ -	\$ (5,200,591)
13	Year Ended 12/31/13	\$ (6,908,290)	\$ 120,000	\$ 2,190,746	\$ (200,847)	\$ (402,200)	\$ (5,200,591)

1/ The storm fund changed from \$0.00223 to \$0.00329 effective Nov 1, 2013 per Docket DE 13-196, NHPUC order 25,585.

Liberty Utilities (Granite State Electric) Corp.  
d/b/a Liberty Utilities  
Annual Storm Fund Report  
Attachment 2  
Page 1 of 1

Liberty Utilities (Granite State Electric ) Corp.  
d/b/a Liberty Utilities  
Annual Report of Storm Fund Activity  
For the Year Ended December 31, 2013

Line	Month	(Estimated) Sandy October-12 Storm Event	(Estimated) Nemo February-13 Storm Event	(Estimated) June-13 Storm Event	Total
		(a)	(a)	(b)	
1	January-13	\$ (43,704)			\$ (43,704)
2	February	3,803	76,693		80,496
3	March	(2,020)	279,471		277,451
4	April	(84,623)	53		(84,570)
5	May	-	43,002		43,002
6	June	(2,714)	143	67,748	65,177
7	July	(188)	49,208	38,812	87,832
8	August	-	-		-
9	September	-	-		-
10	October	(23,484)			(23,484)
11	November	-			-
12	December				-
13	Year Ended 12/31/13	\$ (152,930)	\$ 448,570	\$ 106,560	\$ 402,200

Liberty Utilities (Granite State Electric) Corp.  
d/b/a Liberty Utilities  
Annual Storm Fund Report  
Attachment 3  
Page 1 of 3

**Liberty Utilities (Granite State Electric) Corp.**  
**Annual Storm Fund Report**  
**Winter Storm Nemo – February 8, 2013**

**1. Description of the Storm**

In the normal course of managing system operations, Liberty Utilities continually monitors the weather. Beginning on February 5, 2013, it became apparent that there was a winter storm predicted to be in the Company's service territory by Friday, February 8. The amount of accumulation and snow moisture content was unknown at the time of pre-planning efforts. Operational storm planning conference calls commenced on February 6, 2013, to discuss the weather forecast and planning efforts for the pending snow storm.

Reviews of storm preparation checklists were undertaken to ensure Liberty Utilities was adequately positioned to address safety concerns, assess damage and resource requirements for repair and power restoration, and deliver effective and accurate communications to municipal and emergency personnel. On Thursday, February 7, 2013, in accordance with Liberty Utilities' Electric Emergency Procedures ("EEP"), the Incident Command Structure ("ICS") was activated at the regional and branch levels.

Liberty Utilities' meteorological service, Telvent (Schneider Electric), anticipated a storm system that would bring heavy snowfall accumulation across New Hampshire ranging anywhere from 15" to 24" of snowfall. The EII table (Table 1) shows a severity Level 3 or Level 4 for the duration of the storm in the Salem, Lebanon and Charlestown operating areas. The start of the storm was approximately 11 a.m. on February 8, 2013, with the heaviest snowfall beginning at approximately 2 p.m. on that date. The winter storm ended at 9 a.m. on February 9, 2013.

Snow accumulations across New Hampshire were generally 10"-24", with many higher elevation locations across southern and eastern New Hampshire picking up over 21" of snowfall. The consistency of the snow was moderately dry with small amounts of residual buildup on the overhead assets and vegetation.



Liberty Utilities (Granite State Electric) Corp.  
d/b/a Liberty Utilities  
Annual Storm Fund Report  
Attachment 3  
Page 2 of 3

**Table 1**  
**EEI Table for 2/8/13 Winter Storm Nemo**

EII	NorthWest Monroe/Bath, NH	Southern Salem/Derry, NH	Montauk, NY	Northern Lebanon/Hanover, NH	Western Alstead/Charlestown, NH
Day 1 Snow	1	3	1	1	2
Day 1 Ice	1	1	1	1	1
Day 1 Wind	1	1	1	1	1
Day 1 Gust	2	3	3	2	1
Day 1 Confidence	High	High	High	High	High
Day 2 Snow	3	4	2	3	3
Day 2 Ice	1	1	1	1	1
Day 2 Wind	1	1	1	1	1
Day 2 Gust	2	3	3	2	2
Day 2 Confidence	Medium	High	High	Medium	Medium
Day 3 Snow	1	1	1	1	1
Day 3 Ice	1	1	1	1	1
Day 3 Wind	1	1	1	1	1
Day 3 Gust	1	1	1	1	1
Day 3 Confidence	High	High	High	High	High

Schneider Electric Event Index Definition  
Without Leaves (November 1 - March 31)

	Wind Speed	Wind Gusts	Ice Accretion	Snow Accumulation	Confidence Levels	
<b>EII 1</b>	<40 mph	<45 mph	<1/10 inch	<6 inches	Low	<30% Chance
<b>EII 2</b>	>=45 mph	>=45 mph	>=1/10 inch	>=6 inches		
<b>EII 3</b>	>=50 mph	>=55 mph	>3/8 inch	>8 inches	Medium	>=30 to <60% Chance
<b>EII 4</b>	>=60 mph	>=70 mph	>1/2 inch	>12 inches		
<b>EII 5</b>	>=70 mph	>=85 mph	>1 inch	>24 inches	High	>=60% Chance

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## **2. Summary of the Extent of the Storm Damage**

The customer outage impact for Winter Storm Nemo was less than 1,000 customers. Since the winds and snow accumulation on the trees and overhead lines were minimal, the outages due to Winter Storm Nemo were significantly less than predicted. Attachment 3: Table 2, details the event log for the storm and observed damage to Liberty Utilities' distribution system by feeder.

In all, Liberty Utilities experienced two events, with 852 customers interrupted during the February 8 – 9, 2013, storm.

In preparation of Winter Storm Nemo, Liberty Utilities pre-staged both internal and external resources. In addition to the existing 8 internal line crews, Liberty Utilities pre-staged 17 external contractor line crews and 15 contractor tree crews.

Additionally, Liberty Utilities pre-staged 32 Damage Assessment personnel, 10 Company personnel as Wires Down Appraisers and 12 other personnel for office and field support personnel.

## **3. Details of Qualifying Costs Charged to the Storm Fund in 2013**

Attachment 3: Table 3 details the preliminary costs associated with Winter Storm Nemo 2013 storm event charged to the storm fund during calendar year 2013.

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**Table 2**

Event ID	Feeder(s)	Time Off	Weather	Cause	Classification	CI	Duration (minutes)
7729568	42-18L4	02/08/2013 8:16 PM	Snow	Tree -Broken Limb	Station Breaker	846	38
7729604	43-8L1	02/09/2013 05:47 AM	Snow	Deterioration	Fused branch - overhead	6	88

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**Table 3**

**Liberty Utilities (Granite State Electric) Corp.  
d/b/a/ Liberty Utilities  
Total O&M Staging Costs for Winter Storm Nemo - February 2013 (Estimated)  
Incurred Through December 31, 2013**

Line No.	Description	Total Staging Costs
1	Charges for employee payroll	76,121
2	Charges for Transportation on GSE vehicles	70
3	Charges from outside companies	346,987
4	Charges for employee expenses	25,392
5	Total	<u>\$448,570</u>

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**Liberty Utilities (Granite State Electric) Corp.**  
**d/b/a Liberty Utilities**  
**O&M Staging Costs From Winter Storm Nemo February 2013 (Estimated)**

Line No.	Outside Companies	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Total Costs
1	3 Phase Line Construction		16,643					16,643
2	Asplund Tree Expert Co.		24,292		41,710			66,002
3	Carr & Duff Inc		190,355					190,355
4	Thirau						42,629	42,629
5	Power Line Contractors		22,546					22,546
6	Vendors < \$10,000	98	921		1292		6,501	8,812
7	Subtotal Outside Companies	98	254,757	-	43,002	-	49,130	346,987
								-
8	Company Payroll	76,230	(109)					76,121
9	Transportation	70						70
10	Employee Expenses	294	24,823	53		143	79	25,392
11	Total O&M Restoration Costs	76,693	279,471	53	43,002	143	49,209	448,570
12	Less Fairpoint Communication Billing							
13	Amount Charged to Storm Fund	76,693	279,471	53	43,002	143	49,209	448,570

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**Liberty Utilities (Granite State Electric) Corp.**  
**Annual Storm Fund Report**  
**June 2 – 3, 2013 Storm**

**1. Description of the Storm**

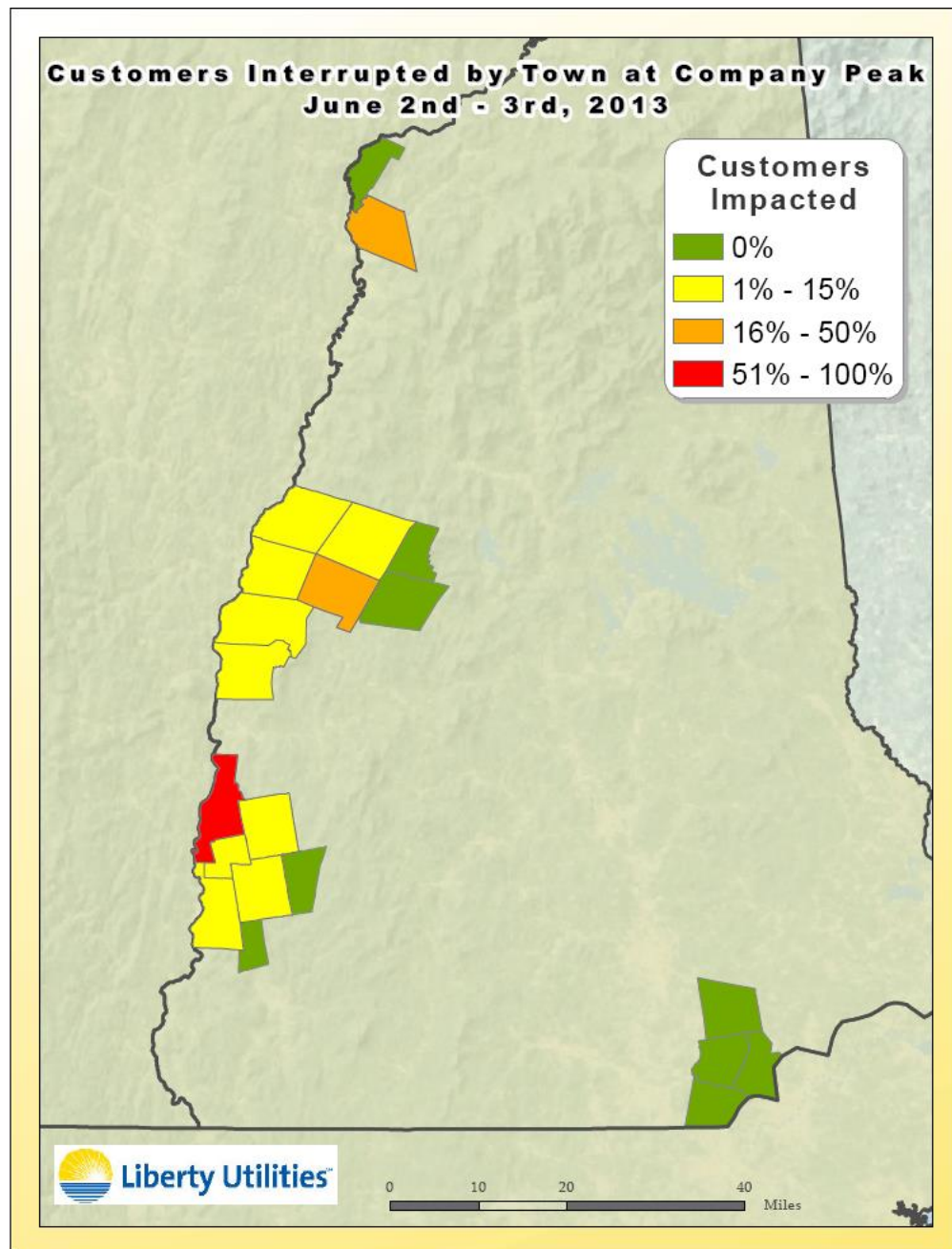
Our weather monitoring service provider, Telvent (Schneider Electric) provides 24 hour weather analysis and prediction. On Wednesday, May 29, 2013, the storm model predicted some instability over the weekend of May 31, 2013, through June 2, 2013, due to the heat wave of 90+ degree weather moving in on Thursday, May 30. Liberty Utilities began contingency planning for the weekend on Thursday and Friday, May 30 and 31, which included pre-staging both internal and external line crews. On Sunday, June 2, at approximately 3 p.m., a large storm cell containing gusty winds and rain came through the Lebanon and Charlestown area. Once the front moved through the region, the weather stabilized and the humidity and high heat was reduced significantly for the remainder of the weekend.

**2. Summary of the Extent of the Storm Damage**

Due to the wind gusts, a number of Liberty Utilities' customers were without power from Sunday, June 2, 2013, through June 3, 2013. See Figure 1 for peak outages by town.

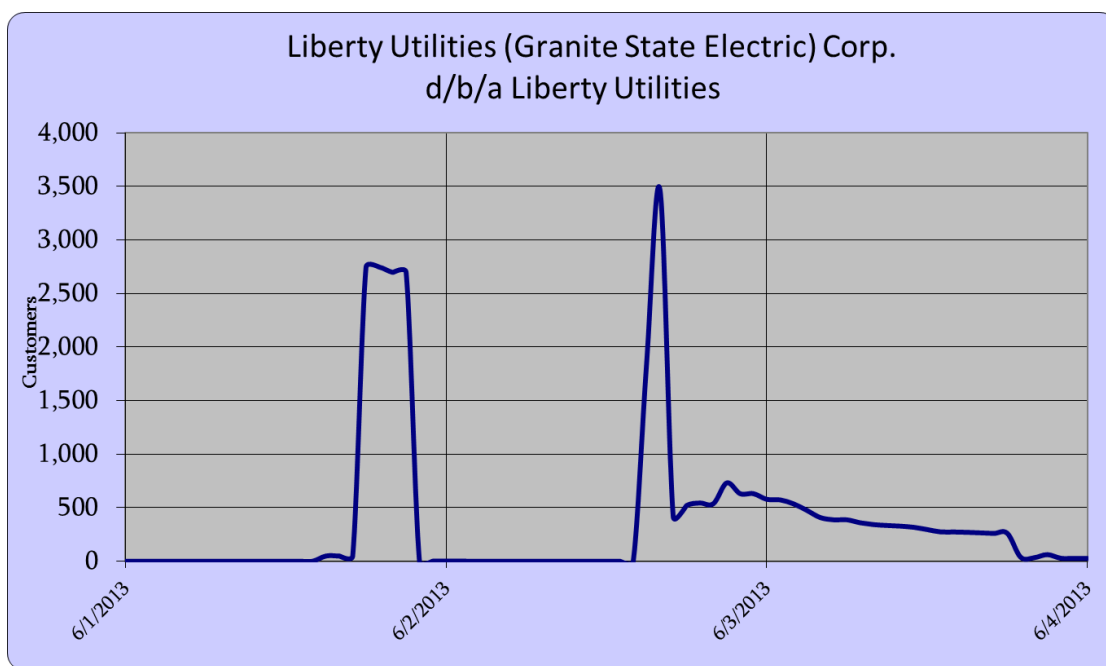
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**Figure 1**  
**Customers Impacted**



At the peak, on June 2, 2013, approximately 3,740 customers were interrupted (see Figure 2). In response to these peak outages, additional internal crews were called in and additional external contractor line crews were procured. In response to these peak outages, there were three internal distribution line crews and a peak of 10.5 contractor crews. Seven of the external contractor line crews were mobilized by the afternoon of June 2, 2013. The remaining external line crews were deployed the morning of June 3, 2014. Liberty Utilities mobilized a peak of 6 contractor tree crews.

**Figure 2**  
**Customers Without Power**



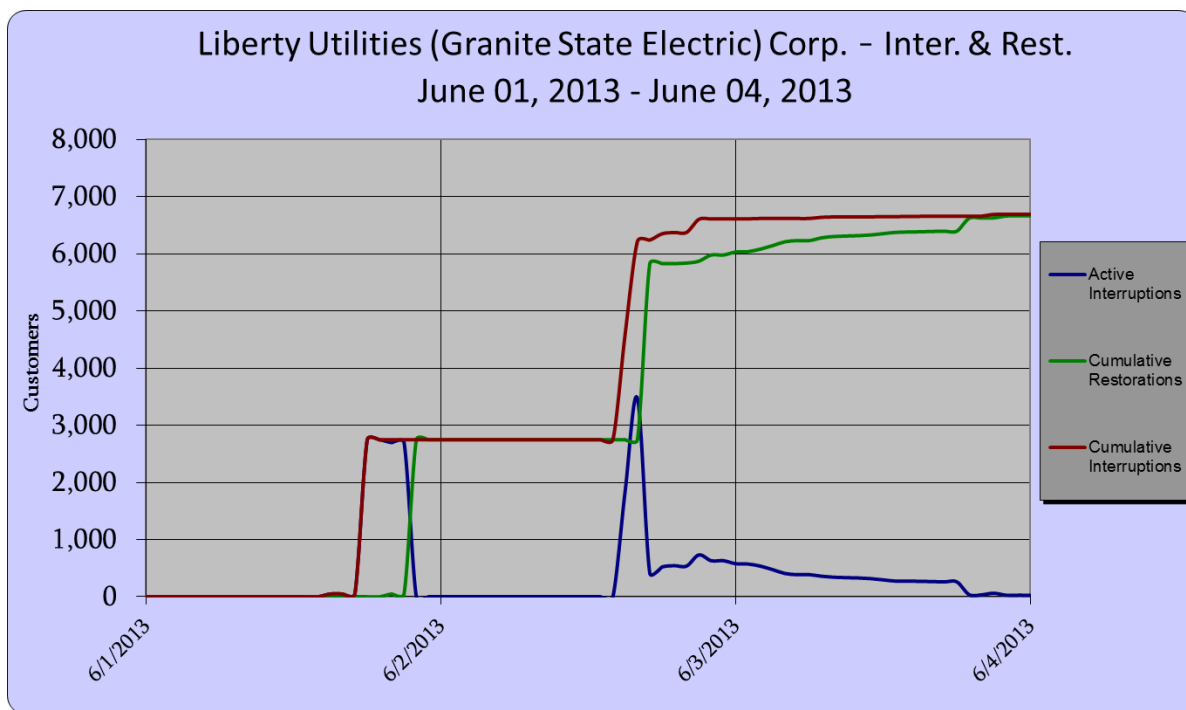
Ninety percent (90%) of those peak customers were restored by June 3 at approximately 5 a.m. All remaining customers were restored by June 3 at approximately 11 p.m. A total of 3,855 of Liberty Utilities' customers were impacted at different times over the course of the June 2 – 3 storm event as shown in Figure 3, which reflects the cumulative interruptions and restorations experienced by customers throughout the event.

In all, Liberty Utilities experienced 56 events, with approximately 3,855 total customers interrupted during the June 2 – June 3 storm. Attachment 4: Table 1 details the event log for the storm and observed damage to Liberty Utilities' distribution system by feeder. After the storm, Liberty Utilities reviewed the interruption data stored in the Interruption and Disturbance System. Liberty Utilities determined that the June 2 – June 3 storm event qualified as a major storm.



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**Figure 3**  
**Customer Interruption and Restoration Table**



**3. Details of Qualifying Costs Charged to the Storm Fund in 2013**

Attachment 4: Table 2 details the preliminary costs associated with June 2 – 3 storm event charged to the storm fund during calendar year 2013.

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**Table 1**

Event ID	Feeder(s)	Time Off	Weather	Cause	Classification	CI	Duration (minutes)
7744929	43-8L1	06/02/2013 14:48	Rain - heavy	Tree - Broken Limb	Main line - overhead	1506	100
7745180	41-39L2	06/02/2013 14:55	Rain - heavy	Tree Fell	Fused branch - overhead	13	1156
7744928	41-11L1	06/02/2013 14:57	Rain - heavy	Tree - Broken Limb	Fused branch - overhead	331	68
7745040	41-39L2	06/02/2013 15:02	Rain - light / moderate	Tree Fell	Fused branch - overhead	33	377
7744923	41-1L2	06/02/2013 15:03	Rain - heavy	Tree - Broken Limb	Main line - overhead	1241	58
7745277	41-39L2	06/02/2013 15:06	Rain - heavy	Tree - Broken Limb	Secondary/Service - overhead	1	1707
7745145	41-1L2	06/02/2013 15:07	Rain - heavy	Tree Fell	Fused branch - overhead	16	899
7745084	41-16L1	06/02/2013 15:08	Rain - light / moderate	Tree Fell	Fused branch - overhead	46	510
7745028	41-6L3	06/02/2013 15:10	Rain - light / moderate	Tree Fell	Fused branch - overhead	17	325
7745265	41-15H1	06/02/2013 15:10	Rain - heavy	Tree Fell	Fused branch - overhead	4	1515
7745118	41-16L1	06/02/2013 15:11	Rain - light / moderate	Tree Fell	Fused branch - overhead	41	693
7745147	41-7L1	06/02/2013 15:11	Rain - heavy	Tree Fell	Fused branch - overhead	31	935
7745148	41-7L1	06/02/2013 15:11	Rain - heavy	Tree Fell	Fused branch - overhead	2	934
7745341	41-6L3	06/02/2013 15:11	Rain - light / moderate	Tree Fell	Fused branch - overhead	26	2363
7745098	41-16L1	06/02/2013 15:12	Rain - light / moderate	Tree Growth	Fused branch - overhead	7	588
7745131	41-7L1	06/02/2013 15:14	Rain - light / moderate	Tree Fell	Fused branch - overhead	23	738
7745161	41-6L3	06/02/2013 15:15	Rain - heavy	Lightning	Transformer	6	1067
Event ID	Feeder(s)	Time Off	Weather	Cause	Classification	CI	Duration (minutes)
7745053	41-7L1	06/02/2013 15:16	Rain - light / moderate	Tree - Broken Limb	Transformer	7	469

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7745133	41-16L1	06/02/2013 15:18	Rain - light / moderate	Tree - Broken Limb	Fused branch - overhead	8	762
7745137	41-7L1	06/02/2013 15:18	Rain - light / moderate	Tree Fell	Fused branch - overhead	13	802
7745115	41-7L1	06/02/2013 15:19	Rain - light / moderate	Tree Fell	Fused branch - overhead	18	660
7745104	41-7L1	06/02/2013 15:20	Rain - light / moderate	Tree Fell	Fused branch - overhead	31	611
7745298	41-1L2	06/02/2013 15:22	Rain - heavy	Tree - Broken Limb	Secondary/Service - overhead	1	1824
7744975	41-39L2	06/02/2013 15:31	Rain - light / moderate	Lightning	Transformer	3	111
7745132	41-16L1	06/02/2013 15:35	Rain - light / moderate	Tree Fell	Fused branch - overhead	44	715
7745259	41-11L1	06/02/2013 15:48	Rain - heavy	Tree Fell	Secondary/Service - overhead	1	1409
7745004	43-12L1	06/02/2013 16:27	Rain - light / moderate	Tree Fell	Fused branch - overhead	16	229
7745093	43-12L1	06/02/2013 16:35	Rain - light / moderate	Lightning	Transformer	5	505
7745308	41-7L1	06/02/2013 16:50	Rain - heavy	Tree Fell	Secondary/Service - overhead	1	1821
7745111	43-12L1	06/02/2013 17:01	Rain - light / moderate	Lightning	Transformer	2	564
7745150	41-1L2	06/02/2013 17:06	Rain - heavy	Lightning	Fused branch - overhead	23	886
7745268	41-11L1	06/02/2013 17:15	Rain - heavy	Tree Fell	Secondary/Service - overhead	1	1344
7744973	41-39L2	06/02/2013 17:28	Rain - light / moderate	Lightning	Fused branch - overhead	9	109
7745029	43-8L1	06/02/2013 17:40	Rain - light / moderate	Lightning	Fused branch - overhead	75	236
7745201	41-6L3	06/02/2013 18:32	Rain - heavy	Tree - Broken Limb	Fused branch - overhead	23	1009
Event ID	Feeder(s)	Time Off	Weather	Cause	Classification	CI	Duration (minutes)
7745221	41-39L2	06/02/2013 19:50	Rain - heavy	Tree - Broken Limb	Secondary/Service - overhead	1	1043
Event ID	Feeder(s)	Time Off	Weather	Cause	Classification	CI	Duration (minutes)
7745113	41-1L2	06/02/2013 19:56	Rain - heavy	Tree - Broken Limb	Secondary/Service - overhead	1	1418

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7744998	41-39L2	06/02/2013 20:00	Rain - heavy	Tree Fell	Main line - overhead	225	1339
7745224	41-39L2	06/02/2013 20:05	Rain - heavy	Tree - Broken Limb	Transformer	1	1030
7745110	43-12L1	06/02/2013 20:06	Rain - light / moderate	Lightning	Transformer	1	335
7745222	41-39L2	06/02/2013 20:55	Rain - heavy	Tree - Broken Limb	Secondary/Service - overhead	1	980
7745092	43-12L1	06/02/2013 21:35	Rain - light / moderate	Lightning	Transformer	6	174
7745225	41-39L2	06/02/2013 21:36	Rain - heavy	Tree - Broken Limb	Transformer	1	939
7745280	41-6L3	06/03/2013 00:33	Fair	Tree - Broken Limb	Secondary/Service - overhead	1	1152
7745159	41-6L3	06/03/2013 01:49	Rain - heavy	Lightning	Fused branch - overhead	7	416
7745207	41-39L2	06/03/2013 06:03	Rain - heavy	Tree Fell	Fused branch - overhead	20	356
7745297	41-16L1	06/03/2013 06:35	Fair	Tree - Broken Limb	Secondary/Service - overhead	1	846
7745210	41-7L1	06/03/2013 07:24	Rain - heavy	Tree Fell	Transformer	1	288
7745162	41-6L3	06/03/2013 07:48	Rain - heavy	Lightning	Transformer	1	42
7745245	41-39L2	06/03/2013 07:52	Rain - heavy	Lightning	Transformer	4	371
7745226	41-39L2	06/03/2013 10:30	Rain - light / moderate	Tree - Broken Limb	Secondary/Service - overhead	1	167
7745214	41-6L3	06/03/2013 10:54	Rain - heavy	Tree Fell	Secondary/Service - overhead	1	106
7745231	41-1L2	06/03/2013 11:02	Rain - light / moderate	Tree - Broken limb	Secondary/Service - overhead	1	157
7745264	43-12L1	06/03/2013 11:48	Rain - heavy	Lightning	Transformer	1	264
7745257	41-39L2	06/03/2013 13:22	Rain - light / moderate	Tree Fell	Fused branch - overhead	4	108
7745291	41-1L2	06/03/2013 13:40	Fair	Tree Fell	Secondary/Service - overhead	1	439

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**Table 2**

**Liberty Utilities (Granite State Electric) Corp.  
d/b/a/ Liberty Utilities  
Total O&M Restoration Costs for June 2-3, 2013 Storm (Estimated)  
Incurred Through December 31, 2013**

Line No.	Description	Total Restoration Costs
1	Charges for employee payroll	30,844
2	Charges from outside companies	74,993
3	Charges for employee expenses	724
4	Total	<u><u>\$106,560</u></u>

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**Liberty Utilities (Granite State Electric) Corp.**  
**d/b/a Liberty Utilities**  
**O&M Restoration Costs From the June 2013 Storm (Estimated)**

Line No.	Outside Companies	Jun-13	Jul-13	Total Costs
1	D&D Power Inc.		38,812	38,812
2	Asplundh Tree Expert Co.	19,780		19,780
3	3 Phase Line Construction	10,606		10,606
4	Vendors < \$10,000	5,795		5,795
5	Subtotal Outside Companies	36,181	38,812	74,993
6	Company Payroll	30,844		30,844
7	Employee Expenses	724		724
8	Total O&M Restoration Costs	67,748	38,812	106,560
9	Less FairPoint Communication Billing			
10	Amount Charged to Storm Fund	67,748	38,812	\$106,560