### Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities Annual Storm Fund Accounting For the Year Ended December 31, 2020

				Collection	-	-		2020 Stori	m Costs				Unadjusted	Average		Interest	Adjusted
		Beginning	Base	SRA	<u>,                                     </u>		Outside	Materials &	Employee			Audit / Prior Period	Ending	Monthly	Interest	Expense	Ending
Line			Rates (1)		Total	Payroll		Supplies		Accrual	Total		Balance	Balance			•
		Balance		Factor (2)	10tal		companies	<u>Supplies</u>	Expenses	Accrual		<u>Adjustments</u>			Rate (3)	(Income)	Balance
(a)	(b)	(c)	(d)	(e)	(1)	(g)	(h)	. (1)	. (1)	(k)	(1)	(m)	(n)	(o)	(p)	(q)	(r)
1 January	2020	\$ (1,208,262.64)	\$ (125,000.00	) Ş -	\$ (125,000.00)	\$ -	Ş -	Ş -	Ş -	Ş -	\$ -	\$ 58,255.14	\$ (1,275,007.50)	\$ (1,241,635.07)	4.75%	\$ (4,914.81)	\$ (1,279,922.31)
2 February	2020	(1,279,922.31)	(125,000.00	-	(125,000.00)	-	-	-	-	-	-		(1,404,922.31)	(1,342,422.31)	4.75%	(5,313.75)	(1,410,236.06)
3 March	2020	(1,410,236.06)	(125,000.00	-	(125,000.00)	-	-	-	-	-	-		(1,535,236.06)	(1,472,736.06)	4.75%	(5,829.58)	(1,541,065.64)
4 April	2020	(1,541,065.64)	(125,000.00	-	(125,000.00)	66,733.01	16,375.95	-	-	81,661.41	164,770.37		(1,501,295.27)	(1,521,180.46)	4.75%	(6,021.34)	(1,507,316.61)
5 May	2020	(1,507,316.61)	(125,000.00	-	(125,000.00)	0.04	27,311.50	-	-	(81,661.41)	(54,349.87)		(1,686,666.48)	(1,596,991.54)	4.75%	(6,321.42)	(1,692,987.90)
6 June	2020	(1,692,987.90)	(125,000.00	-	(125,000.00)	-	186.04	-	-	-	186.04		(1,817,801.86)	(1,755,394.88)	4.75%	(6,948.44)	(1,824,750.30)
7 July	2020	(1,824,750.30)	(125,000.00	-	(125,000.00)	-	-	-	3,763.46	-	3,763.46		(1,945,986.84)	(1,885,368.57)	3.25%	(5,106.21)	(1,951,093.05)
8 August	2020	(1,951,093.05)	(125,000.00	-	(125,000.00)	224,192.59	48,524.20	1,902.05	260.92	88,989.34	363,869.10		(1,712,223.95)	(1,831,658.50)	3.25%	(4,960.74)	(1,717,184.69)
9 September	2020	(1,717,184.69)	(125,000.00	-	(125,000.00)	1,157.37	1,670.81	437.12	-	(58,989.34)	(55,724.04)	(2,174.73)	(1,900,083.46)	(1,808,634.08)	3.25%	(4,898.38)	(1,904,981.85)
10 October	2020	(1,904,981.85)	(125,000.00	-	(125,000.00)	-	43,980.41	-	2,801.10	(10,000.00)	36,781.51	(196.00)	(1,993,396.34)	(1,949,189.09)	3.25%	(5,279.05)	(1,998,675.39)
11 November	2020	(1,998,675.39)	(125,000.00	-	(125,000.00)	-	-	-	-	-	-		(2,123,675.39)	(2,061,175.39)	3.25%	(5,582.35)	(2,129,257.74)
12 December	2020	(2,129,257.74)	(125,000.00	-	(125,000.00)	156,059.31	170,831.03	-	(343.94)	280,629.70	607,176.10		(1,647,081.64)	(1,888,169.69)	3.25%	(5,113.79)	(1,652,195.43)
132021 Activ	/ity	(1,652,195.43)				(2,226.87)	155,829.90	-	7,749.38	(300,629.70)	(139,277.29)	(70,000.01)	(1,861,472.73)	(1,756,834.08)			(1,861,472.73) (4)
14																	
15 Totals			\$ (1,500,000.00	\$ -	\$ (1,500,000.00)	\$ 445,915.45	\$ 464,709.84	\$ 2,339.17	\$ 14,230.92	\$ -	\$ 927,195.38	\$ (14,115.60)				\$ (66,289.87)	\$ (1,861,472.73)
16																	

16 17

18 (1) Effective 4/1/14, \$1.5 million annually is in base rates (see Settlement Agreement, 10/30/14, DE 13-063, Order No. 25,738 dated 11/26/14)

19

20 (2) Storm Recovery Adjustment Factor (per kWh) - applied to cancel/rebills and payments on bills for prior periods

21 \$0.00223 effective 1/1/13, \$0.00329 effective 1/1/14, \$0.00221 effective 11/1/14, \$0.00000 effective 11/1/15

22

23 (3) Consistent with the annual storm fund report, interested is calculated each month by taking 1/12th of the annual interest (not based on the number of days in the month) and uses the interest rate in effect on the first of the month preceding the quarter 24

25 (4) See G/L accounts 8830-2-0000-10-1930-1825 and 8830-2-0000-20-2910-2548

## Liberty Utilities (Granite State Electric ) Corp. d/b/a Liberty Utilities Monthly Accounting for Storm Events For the Year Ended December 31, 2020

Line	Month		Wind Storm 4/13/2020	Trop	ical Storm Isaias 8/3/2020	Nor'easter 12/5/2020	 Snow Storm Gail 12/15/2020	Chris	stmas Wind Storm 12/22/2020	Total Costs
(a)	(b)		(d)		(e)	(f)	(g)		(h)	(k)
1	January 2020	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
2	February		-		-	-	-		-	-
3	March		-		-	-	-		-	-
4	April		164,770.37		-	-	-		-	164,770.37
5	May		(54,349.87)		-	-	-		-	(54,349.87)
6	June		186.04		-	-	-		-	186.04
7	July		3,763.46		-	-	-		-	3,763.46
8	August		-		363,869.10	-	-		-	363,869.10
9	September		-		(55,724.04)	-	-		-	(55,724.04)
10	October		-		36,781.51	-	-		-	36,781.51
11	November		-		-	-	-		-	-
12	December		-		15,337.14	353,124.07	134,578.92		104,135.97	607,176.10
13	2021		-		(19,382.19)	(112,515.01)	275.11		(7,655.20)	(139,277.29)
14	T . 12020 C		444.070.00		240 004 52	240 500 55	424.054.22		06 400 ==	027.405.00
15	Total 2020 Storms	Ş	114,370.00	\$	340,881.52	\$ 240,609.06	\$ 134,854.03	\$	96,480.77	\$ 927,195.38

#### Liberty Utilities (Granite State Electric ) Corp. d/b/a Liberty Utilities Annual Report of All Storm Fund Activity For the Year Ended December 31, 2020 Table 1

Line																		
No.	Description	Jai	n-20	F	eb-20	Ma	ar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	2021	Total Costs
1	Payroll charges including payroll overheads for GSE Employees	\$	-	\$	-	\$	-	\$ 66,733.01	\$ 0.04	\$ -	\$ -	\$ 224,192.59	\$ 1,157.37	\$ -	\$ -	\$ 156,059.31	\$ (2,226.87)	\$ 445,915.45
3	Charges from outside companies		-		-		-	16,375.95	27,311.50	186.04	-	48,524.20	1,670.81	43,980.41	-	170,831.03	155,829.90	464,709.84
5 6	Charges for Materials and Supplies		-		-		-	-	-	-	-	1,902.05	437.12	-	-	-	-	2,339.17
7	Charges for employee expenses		-		-		-	-	-	-	3,763.46	260.92	-	2,801.10	-	(343.94)	7,749.38	14,230.92
9	Accrual for outside companies		-		-		-	81,661.41	(81,661.41)	-	-	88,989.34	(58,989.34)	(10,000.00)	-	280,629.70	(300,629.70)	-
11	Total	\$	-	\$	-	\$	-	\$ 164,770.37	\$ (54,349.87)	\$ 186.04	\$ 3,763.46	\$ 363,869.10	\$ (55,724.04)	\$ 36,781.51	\$ -	\$ 607,176.10	\$ (139,277.29)	\$ 927,195.38

## Liberty Utilities (Granite State Electric ) Corp. d/b/a Liberty Utilities Total O&M Pre-Staging Costs - Wind Storm April 13, 2020 January 1, 2020 Through December 31, 2020 Table 1

Line No.	Description	 Apr-20	 May-20	 Jun-20	 Jul-20	 Aug-20	 Jan-21	 Feb-21	Tota	Osts
1	Payroll charges including payroll overheads for GSE Employees	\$ 66,733.01	\$ 0.04	\$ -	\$ -	\$ -	\$ -	\$ -	\$	66,733.05
2										
3	Charges from outside companies	16,375.95	27,311.50	186.04	-	-	-	-		43,873.49
4										
5	Charges for Materials and Supplies	-	-	-	-	-	-	-		-
6										
7	Charges for employee expenses	-	-	-	3,763.46	-	-	-		3,763.46
8										
9	Accrual for outside companies	81,661.41	(81,661.41)	-	-	-	-	-		-
10										
11	Total	\$ 164,770.37	\$ (54,349.87)	\$ 186.04	\$ 3,763.46	\$ -	\$ -	\$ -	\$	114,370.00

## Liberty Utilities (Granite State Electric ) Corp. d/b/a Liberty Utilities Total O&M Qualifying Storm Costs - Tropical Storm Isaias August 3, 2020 January 1, 2020 Through December 31, 2020 Table 2

Line No.	Description	Aug-20	Sep-20	Oct-20	Dec-20	Jan-21	Total Pre- Staging Costs
1	Payroll charges including payroll overheads for GSE Employees	\$ 224,192.59	\$ 1,157.37	\$ -	\$ -	\$ -	\$ 225,349 96
3	Charges from outside companies	48,524.20	1,670.81	43,980.41	15,681.08	617.81	110,474 31
5	Charges for Materials and Supplies	1,902.05	437.12	-	-	-	2,339.17
7 8	Charges for employee expenses	260.92	-	2,801.10	(343.94)	-	2,718.08
9 10	Accrual for outside companies	88,989.34	(58,989.34)	(10,000.00)	-	(20,000.00)	-
11	Total	\$ 363,869.10	\$ (55,724.04)	\$ 36,781.51	\$ 15,337.14	\$ (19,382.19)	\$ 340,881 52

## Liberty Utilities (Granite State Electric ) Corp. d/b/a Liberty Utilities Total O&M Pre-Staging Costs - Nor'easter December 5, 2020 January 1, 2020 Through December 31, 2020 Table 3

									Tota	al Pre-Staging
Description		Dec-20		Jan-21		Feb-21		Mar-21		Costs
Payroll charges including payroll overheads for GSE Employees	\$	87,952 28	\$	-	\$	-	\$	-	\$	87,952.28
Charges from outside companies		112,232.74		29,838.14		(529.52)		6,355.79		147,897.15
Charges for Materials and Supplies		-		-		-		-		-
Charges for employee expenses		-		818.24		3,941.39		-		4,759.63
Accrual for outside companies		152,939.05		(152,939.05)		-		-		-
Total	\$	353,124.07	\$	(122,282.67)	\$	3,411.87	\$	6,355.79	\$	240,609.06
	Payroll charges including payroll overheads for GSE Employees  Charges from outside companies  Charges for Materials and Supplies  Charges for employee expenses  Accrual for outside companies	Payroll charges including payroll overheads for GSE Employees \$  Charges from outside companies  Charges for Materials and Supplies  Charges for employee expenses  Accrual for outside companies	Payroll charges including payroll overheads for GSE Employees \$ 87,952 28  Charges from outside companies 112,232.74  Charges for Materials and Supplies -  Charges for employee expenses -  Accrual for outside companies 152,939.05	Payroll charges including payroll overheads for GSE Employees \$ 87,952 28 \$  Charges from outside companies 112,232.74  Charges for Materials and Supplies -  Charges for employee expenses -  Accrual for outside companies 152,939.05	Payroll charges including payroll overheads for GSE Employees \$ 87,952 28 \$ -  Charges from outside companies 112,232.74 29,838.14  Charges for Materials and Supplies  Charges for employee expenses - 818.24  Accrual for outside companies 152,939.05 (152,939.05)	Payroll charges including payroll overheads for GSE Employees \$ 87,952 28 \$ - \$  Charges from outside companies 112,232.74 29,838.14  Charges for Materials and Supplies  Charges for employee expenses - 818.24  Accrual for outside companies 152,939.05 (152,939.05)	Payroll charges including payroll overheads for GSE Employees \$ 87,952 28 \$ - \$ -  Charges from outside companies 112,232.74 29,838.14 (529.52)  Charges for Materials and Supplies  Charges for employee expenses - 818.24 3,941.39  Accrual for outside companies 152,939.05 (152,939.05) -	Payroll charges including payroll overheads for GSE Employees \$ 87,952 28 \$ - \$ - \$ Charges from outside companies 112,232.74 29,838.14 (529.52)  Charges for Materials and Supplies Charges for employee expenses - 818.24 3,941.39  Accrual for outside companies 152,939.05 (152,939.05) -	Payroll charges including payroll overheads for GSE Employees         \$ 87,952 28         \$ -         \$ -         \$ -           Charges from outside companies         112,232.74         29,838.14         (529.52)         6,355.79           Charges for Materials and Supplies         -         -         -         -         -           Charges for employee expenses         -         818.24         3,941.39         -           Accrual for outside companies         152,939.05         (152,939.05)         -         -	Payroll charges including payroll overheads for GSE Employees         \$ 87,952 28         \$ - \$         \$ - \$         \$           Charges from outside companies         112,232.74         29,838.14         (529.52)         6,355.79           Charges for Materials and Supplies          -         -           Charges for employee expenses         - 818.24         3,941.39         -           Accrual for outside companies         152,939.05         (152,939.05)         -         -

# Liberty Utilities (Granite State Electric ) Corp. d/b/a Liberty Utilities Total O&M Pre-Staging Costs - Snow Storm Gail December 15, 2020 January 1, 2020 Through December 31, 2020 Table 4

Line						Tot	al Pre-Staging
No.	Description	 Dec-20	 Jan-21	 Feb-21	 Mar-21		Costs
1 2	Payroll charges including payroll overheads for GSE Employees	\$ 47,067.82	\$ (2,226.86)	\$ -	\$ -	\$	44,840.96
3	Charges from outside companies	30,940.01	50,527.32	888.85	4,833.35		87,189.53
5 6	Charges for Materials and Supplies	-	-	-	-		-
7 8	Charges for employee expenses	-	-	2,823.54	-		2,823.54
9 10	Accrual for outside companies	56,571.09	(56,571.09)	-	-		-
11	Total	\$ 134,578.92	\$ (8,270.63)	\$ 3,712.39	\$ 4,833.35	\$	134,854.03

# Liberty Utilities (Granite State Electric ) Corp. d/b/a Liberty Utilities Total O&M Pre-Staging Costs - Christmas Wind Storm December 22, 2020 January 1, 2020 Through December 31, 2020 Table 5

Line					Tota	al Pre-Staging
No.	Description	Dec-20	Jan-21	 Feb-21		Costs
1 2	Payroll charges including payroll overheads for GSE Employees	\$ 21,039.21	\$ (0.01)	\$ -	\$	21,039.20
3	Charges from outside companies	11,977.20	63,298.16	-		75,275.36
5 6	Charges for Materials and Supplies	-	-	-		-
7 8	Charges for employee expenses	-	-	166.21		166.21
9 10	Accrual for outside companies	71,119.56	(71,119.56)	-		-
11	Total	\$ 104,135.97	\$ (7,821.41)	\$ 166.21	\$	96,480.77

# Liberty Utilities (Granite State Electric ) Corp. d/b/a Liberty Utilities Additional O&M Qualifying / Pre-Staging Storm Costs Not Included in 2019 Storm Filing January 1, 2019 Through December 31, 2019 Table 6

Line				Hallo	ween Wind	Wi	nter Storm	Tot	al Additional
No.	Description	Storn	n 10/16/2019	Storm	10/31/2019	Ezeki	el 12/2/2019		Costs
1 2	Payroll charges including payroll overheads for GSE Employees	\$	-	\$	-	\$	-	\$	-
3 4	Charges from outside companies		886.51		561.71		46,718.09		48,166.31
5 6	Charges for Materials and Supplies		-		0.19		-		0.19
7 8	Charges for employee expenses		-		88.63		-		88.63
9 10	Accrual for outside companies		(50,000.00)		-		(10,000.00)		(60,000.00)
11	Total	\$	(49,113.49)	\$	650.53	\$	36,718.09	\$	(11,744.87)

# Liberty Utilities (Granite State Electric ) Corp. d/b/a Liberty Utilities Additional O&M Qualifying Storm Costs Not Included in 2017 Storm Filing January 1, 2017 Through December 31, 2017 Table 7

				Winte	er Snow & Ice		
Line		Win	d/Rain Storm	Sto	orm 12/22-	Tot	al Additional
No.	Description	10,	/29-30/2017	12	2/24/2017		Costs
1 2	Payroll charges including payroll overheads for GSE Employees	\$	26,080.66	\$	863.51	\$	26,944.17
3	Charges for Transportation on GSE vehicles		-		-		-
5 6	Charges from outside companies		35,701.13		8,510.80		44,211.93
7 8	Charges for Materials and Supplies		-		-		-
9 10	Charges for employee expenses		-		-		-
11 12	Accrual for outside companies		-		-		-
13	Total	\$	61,781.79	\$	9,374.31	\$	71,156.10

#### **Heather Tebbetts**

From: DTN <EnergyEventIndex@dtn.com>
Sent: Monday, April 13, 2020 9:12 AM

**To:** DL NH Londonderry Emergency Dispatch

**Subject:** Energy Event Index: Threat Level 3

×

### Energy Event Index for ALGONQUIN POWER & UTILITIES CORP

Your forecast administrator: kathleen.kelley@libertyutilities.com

Valid Time: April 13, 2020 9:00 AM EDT Forecaster: scott.dumblauskas

Parameter	Region	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Wind Speed	Montauk NY	2	1	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Wind/Gust	Montauk NY	3	1	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	2	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	2	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	3	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	2	1	1	1	1	1	1	1	1	1
Confidence Level	Montauk NY	High									
	Northern Lebanon Hanover NH	High									
	Northwest Monroe Bath NH	High									
	Southern Salem Derry NH	High									
	Western Alstead Charlestown NH	High									

#### **Energy Event Index**

#### **Definition**

With Leaves (Apr 1 - Oct 31)

EEI	Wind Speed	Wind/Gust
1	< 30 mph	< 35 mph
2	>= 30 mph	>= 35 mph
3	>= 45 mph	>= 50 mph
4	>= 60 mph	>= 65 mph
5	>= 70 mph	>= 75 mph

Confidence Level				
Low	<30% chance the most I kely index level remains at that level through the event			
Medium	30-60% chance the most I kely index level remains at that level through the event			
High	>=60% chance the most likely index level remains at that level through the event			

\*Note: Confidence is NOT a measure of probability of an event occurring; if you have an accompanying forecast discussion, that information can be found there. Confidence is a measure of how likely the forecasted index level will stay at that level from now through the event, or a way to measure the potential for variability in the forecast. So for example, if it is Monday and there are level 2 gusts forecasted on Wednesday with high confidence, and if your customizable threshold for high confidence is set at 60%, it means the following: There is a >=60% chance the most likely forecasted gusts will remain at level 2 with all updates from now through Wednesday.

Date: April 13, 2020 Time: 9:15 AM ET

Forecaster: Michael Hansen/Scott Dumblauskas

Zones (Forecast for next 30 hrs)	SALEM	CHARLESTOWN	LEBANON
Event	GUSTS/T-STORMS	GUSTS/T-STORMS	GUSTS/T-STORMS
Event Begin Time	11am Mon	10am Mon	10am Mon
Event End Time	4am Tue	4am Tue	4am Tue
Event Confidence	HIGH	HIGH	HIGH
Thunderstorm Wind Gusts	45-55	45-60	45-60
Lightning Intensity	LOW	LOW	LOW
Storm Direction	ENE	ENE	ENE
Rain Amount	0.50-1.25"	0.50-1.25"	0.50-1.25"
Max Sustained Winds	15-20	15-20	15-20
Wind Gust	45-60	45-55	45-55
Temp. Extremes	56/49	58/40	58/40

#### LIBERTY UTILITIES SERVICE AREA 48 HOUR OUTLOOK:

SALEM: Heavy rain, thunderstorms, and breezy winds beginning this morning. Rain diminishes in the evening and dry conditions move in overnight. See table above for thunderstorm and wind impact; common gusts of 35-45 mph are likely, with thunderstorm activity expected 2-9pm Monday. Locally higher amounts of rainfall are possible. On Tuesday, dry but breezy. Wind gusts: 20-30 mph. Turning less breezy overnight.

Confidence: Confidence is high that EEI-2 wind gusts will occur Monday. Chance of EEI-2 gusts: 90%. Confidence is high that winds will reach EEI-3 criteria. Chance of EEI-3 gusts: 60%. Confidence is medium that thunderstorm gusts will reach EEI-2. Chance of storms: 30%. Chance of EEI-2 storm gusts: 30%. While wind gusts >50 mph (EEI-3) are noted as possible, the coverage should be isolated and the duration brief, the highest wind threat will stay just to the south. Confidence is high that no hazards will occur on Tuesday.

CHARLESTOWN: Heavy rain, thunderstorms, and breezy winds beginning this morning. Rain diminishes in the evening and dry conditions move in overnight. See table above for thunderstorm and wind impact; common gusts of 35-45 mph are likely, with thunderstorm activity expected 1-9pm Monday. Locally higher amounts of rainfall are possible. On Tuesday, dry but breezy. Wind gusts: 20-30 mph. Turning less breezy overnight.

Confidence: Confidence is high that EEI-2 wind gusts will occur Monday. Chance of EEI-2 gusts: 90%. Confidence is medium that winds will reach EEI-3 criteria. Chance of EEI-3 gusts: 30%. Confidence is medium that thunderstorm gusts will reach EEI-2. Chance of storms: 30%. Chance of EEI-2 storm gusts: 30%. While wind gusts >50 mph (EEI-3) are noted as possible, the coverage should be isolated and the duration brief, the highest wind threat will be closer to the coast. Confidence is high that no hazards will occur on Tuesday.

LEBANON: Heavy rain, thunderstorms, and breezy winds beginning this morning. Rain diminishes in the evening and dry conditions move in overnight. See table above for thunderstorm and wind impact; common gusts of 35-45 mph are likely, with thunderstorm activity expected 1-9pm Monday. Locally higher amounts of rainfall are possible. On Tuesday, dry but breezy. Wind gusts: 20-30 mph. Turning less breezy overnight.

Confidence: Confidence is high that EEI-2 wind gusts will occur Monday. Chance of EEI-2 gusts: 90%. Confidence is medium that winds will reach EEI-3 criteria. Chance of EEI-3 gusts: 30%. Confidence is medium that thunderstorm gusts will reach EEI-2. Chance of storms: 30%. Chance of EEI-2 storm gusts: 30%. While wind gusts >50 mph (EEI-3) are noted as possible, the coverage should be isolated and the duration brief, the highest wind threat will be closer to the coast. Confidence is high that no hazards will occur on Tuesday.

LIBERTY UTILITIES SERVICE AREA 3-5 DAY OUTLOOK: Dry and hazard-free Wednesday. On Thursday, dry with breezy winds developing during the afternoon, with gusts of 25-35 mph. On Friday, dry during the day, then a chance for rain and snow showers during the evening and overnight. Snowfall: Tr-1.00". Breezy during the afternoon with gusts of 25-35 mph.

Confidence: Confidence is high that no hazards will occur Wednesday. Confidence is high that gusts on Thursday and Friday will stay below EEI-2. Chance of EEI-2 gusts Thursday/Friday: 20%.

DAYS 6-10 OUTLOOK FOR SERVICE AREA: The initial 6-10 day period remains a bit uncertain, with a big departure in models regarding a system moving through Friday night into Saturday morning. There is better consistency Saturday night into Sunday that the period will remain dry and hazard-free. A cold front may begin to push into the area by Monday, potentially spinning up a low offshore the East Coast Monday night, which may have some impacts for coastal areas if it tracks close enough to the coast. A ridge of high pressure may then follow into Wednesday, bringing a dry pattern with quiet conditions.

Go to WeatherSentry® Online for a complete view of the forecast and other business critical weather information.

Please do not respond to this email.

<b>DATE:</b>	<b>Monday, April 13, 2020</b>

**TIME: 4:00 PM** 

	<u>Lebanon</u>	<u>S</u>	<u>alem</u>	Charlesto	<u>own</u>	<u>(</u>	<u>Comments</u>	
Weather Forecast	Heavy Rain/Thunderstorms and breezy winds. Gusts 35 to 45MPH are likely with isolated gust of >45-55 MPH. Dry conditions move in overnight and winds will diminish to 20-30 MPH.	Rain/Thun and breezy 35 to 45M with isolat >45-60 M conditions overnight	y winds. Gusts PH are likely ed gust of PH. Dry	isolated gust of >- MPH. Dry condition in overnight and with diminish to 20-30	. Gusts 35 ely with 45-55 ons move winds will			
Anticipated EERP Event Type	Type 3	Т	ype 3	Type 3				
				1			Plus 4 crews on	
Internal Crews	4 1/2	4 crews +	2 T-man	1		9½,2 T-man	Pager Standby – 2 Salem area and 2 Lebanon area.	
Contractor Crews		5 + 2 di	ggers			7	200011011 01 001	
Total Line Crews available	4 1/2	9 + 2 Diggers	s + 2 T-man	Γ-man 1		16 ½ and 2t- man		
Tree Crews	2	3		2		7		
Wires Down								
Other Support								
LU Storm Room Status	Not open							
LU Municipal Room Status	Not open							
Customer Outage Count	N/A	227	77	N/A	٦	Total	2277 – only 16 customers out at this time	
Estimated Date/Time for Total Restoration	Click here to enter a date. Choose an item.			Click here to enter				
Planned Storm Conference Calls	Call # 1 – 11:30 AM Call # 2 – 4:00 PM							
Notifications with Regulators. NHPUC/NH OEM								
EII Event Index & Storm Accounting	Description		GP E	xpense Job		GP VN	/I Job	

EEI - 3	STORM-EXP-2004	STORM-VGMT-2004

#### **Heather Tebbetts**

From: DTN <EnergyEventIndex@dtn.com>
Sent: Tuesday, August 4, 2020 6:57 AM

**To:** DL NH Londonderry Emergency Dispatch

**Subject:** Energy Event Index: Threat Level 2



### Energy Event Index for ALGONQUIN POWER & UTILITIES CORP

Your forecast administrator: kathleen.kelley@libertyutilities.com

Valid Time: August 4, 2020 7:00 AM EDT Forecaster: michael.hansen

Parameter	Region	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Wind Speed	Montauk NY	2	2	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Wind/Gust	Montauk NY	2	2	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	2	2	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	2	2	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	2	2	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	2	2	1	1	1	1	1	1	1	1
Confidence Level	Montauk NY	Medium	Medium	High	High	High	High	Medium	Medium	Medium	Medium
	Northern Lebanon Hanover NH	Medium	Medium	High	High	High	High	Medium	Medium	Medium	Medium
	Northwest Monroe Bath NH	Medium	Medium	High	High	High	High	Medium	Medium	Medium	Medium
	Southern Salem Derry NH	Medium	Medium	High	High	High	High	Medium	Medium	Medium	Medium
	Western Alstead Charlestown NH	Medium	Medium	High	High	High	High	Medium	Medium	Medium	Medium

#### **Energy Event Index**

#### **Definition**

With Leaves (Apr 1 - Oct 31)

EEI	Wind Speed	Wind/Gust
1	< 30 mph	< 35 mph
2	>= 30 mph	>= 35 mph
3	>= 45 mph	>= 50 mph
4	>= 60 mph	>= 65 mph
5	>= 70 mph	>= 75 mph

Confidence Level				
Low	<30% chance the most I kely index level remains at that level through the event			
Medium	30-60% chance the most I kely index level remains at that level through the event			
High	>=60% chance the most likely index level remains at that level through the event			

\*Note: Confidence is NOT a measure of probability of an event occurring; if you have an accompanying forecast discussion, that information can be found there. Confidence is a measure of how likely the forecasted index level will stay at that level from now through the event, or a way to measure the potential for variability in the forecast. So for example, if it is Monday and there are level 2 gusts forecasted on Wednesday with high confidence, and if your customizable threshold for high confidence is set at 60%, it means the following: There is a >=60% chance the most likely forecasted gusts will remain at level 2 with all updates from now through Wednesday.

For Phone Consulting: 1-800-361-4972

Issued Date: 08/04 0600 Forecaster: Michael Hansen

Zones (Forecast for next 30 hrs)	SALEM	CHARLESTOWN	LEBANON
Event	TSTORMS/GUSTS	TSTORMS/GUSTS	TSTORMS/GUSTS
Event Begin Time	5PM TUE	2PM TUE	3PM TUE
Event End Time	4AM WED	3AM WED	3AM WED
Event Confidence	MEDIUM	MEDIUM	MEDIUM
Thunderstorm Wind Gusts	30-45 MPH	30-45 MPH	30-45 MPH
Lightning Intensity	LOW	LOW	LOW
Storm Direction	NE	NE	NE
Rain Amount	0.50-1.25"	0.75-2.50"	0.75-2.50"
Snow Amount			
Snow Character			
Max Sustained Winds	25-35 MPH	20-30 MPH	20-30 MPH

Wind Gust	45-60 MPH	40-55 MPH	35-50 MPH
Temp. Extremes	90/69	85/65	86/63

#### LIBERTY UTILITIES SERVICE AREA 48 HOUR OUTLOOK:

TROPICAL STORM ISAIAS UPDATE: Isaias is about 15mi southeast of Roanoke Rapids, NC as of 5am EDT this morning. It briefly became hurricane-strength overnight, but has since moved back over land and weakend to a tropical storm. This system remains forecast to track north-northeast through the Hudson Valley, although it appears to have shifted west in its track slightly. This should bring the heaviest rain through Vermont and eastern New York, although storms and rain from Isaias still stand to bring quite a bit of rain to the general area. The main impacts with Isaias will be thunderstorms capable of producing tornadoes, as well as strong wind gusts. It will remain a rather quick-moving system, so the peak wind gusts should be limited to a brief window, likely later this evening to just after midnight. Confidence is medium with this system.

SALEM: Scattered showers and maybe a slight chance of a thunderstorm during the mid to late morning hours and into the afternoon. Scattered showers and storms developing through the late afternoon and into the evening hours. Rain showers should end shortly after midnight tonight. Main t-storm timing: 5-10pm. See chart above for details. Rainfall: Up to 1.25". Non-thunderstorm winds will also ramp up across the region this evening and fade through tonight/Wednesday morning hours. Peak wind/wind gust timing: 9pm-3am Wed. See chart above for more wind details. Wednesday, breezy and drv.

Confidence: Confidence is medium on impacts on tonight/Wednesday morning from Tropical Storm Isaias. Chance of Thunderstorms: 40%. Chance of EEI-2 storm gusts: 30%. Confidence is medium that rainfall amounts Tuesday night/Wednesday morning will be >1". Chance rainfall >1": 20%. Confidence is high on hazard wind gusts this evening/early Wed. Chance of EEI-2 sustained winds: 20%. Chance of EEI-2/3 gusts Tue evening/night: 70%/10%. Confidence is high that no hazards will occur Wednesday.

CHARLESTOWN: Scattered showers and maybe a slight chance of a thunderstorm during the mid to late morning hours. Scattered showers and storms developing through the afternoon and into the evening hours. Rain showers should end by around midnight. Main t-storm timing: 2-9pm. See chart above for details. Rainfall: Up to 2.50". Non-thunderstorm winds will also ramp up across the region this evening and fade through tonight/Wednesday morning hours. Peak wind/wind gust timing: 8pm-1am Wed. See chart above for more wind details. Wednesday, breezy and dry.

Confidence: Confidence is medium on impacts on tonight/Wednesday morning from Tropical Storm Isaias. Chance of Thunderstorms: 50%. Chance of EEI-2 storm gusts: 30%. Confidence is high that rainfall amounts tonight/Wednesday morning will be >1". Chance rainfall >1": 70%. Confidence is high on hazard wind gusts this evening/early Wed. Chance of EEI-2 sustained winds: 5%. Chance of EEI-2/3 gusts this evening/night: 60%/5%. Confidence is high that no hazards will occur Wednesday.

LEBANON: Scattered showers and maybe a slight chance of a thunderstorm during the mid to late morning hours. Scattered showers and storms developing through the afternoon and into the evening hours. Rain showers should end by around 2am or so tonight. Main t-storm timing: 3-10pm. See chart above for details. Rainfall: Up to 2.50". Non-thunderstorm winds will also ramp up across the region this evening and fade through the late tonight/Wednesday morning hours. Peak wind/wind gust timing: 9pm-2am Wed. See chart above for more wind details. Wednesday, breezy and dry.

Confidence: Confidence is medium on impacts on tonight/Wednesday morning from Tropical Storm Isaias. Chance of Thunderstorms: 50%. Chance of EEI-2 storm gusts: 30%. Confidence is high that rainfall amounts tonight/Wednesday morning will be >1". Chance rainfall >1": 70%. Confidence is high on hazard wind gusts this evening/early Wed. Chance of EEI-2 sustained winds: 5%. Chance of EEI-2/3 gusts this evening/night: 60%/5%. Confidence is high that no hazards will occur Wednesday.

LIBERTY UTILITIES SERVICE AREA 3-5 DAY OUTLOOK: Dry and hazard-free Thursday through Saturday.

Confidence: Confidence is high that no hazards will occur Thursday through Saturday.

Docket No. DE 21-\_\_\_ 2020 Annual Storm Fund Report Attachment 3 Page 7 of 25

DAYS 6-10 OUTLOOK FOR SERVICE AREA: An area of high pressure may remain settled over New England, which would likely bring a fair and quiet weather pattern Sunday and Monday. Storm activity may move in by Tuesday and Wednesday, however, as a disturbance pushes through.

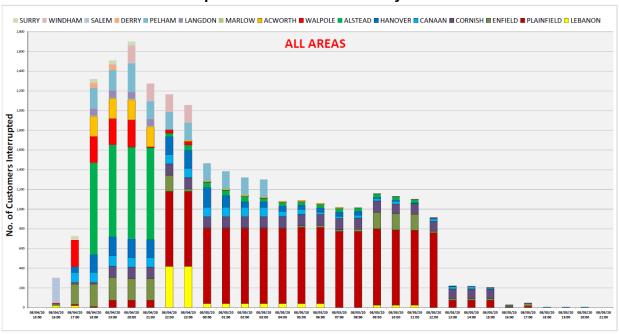
Go to WeatherSentry® Online for a complete view of the forecast and other business critical weather information.

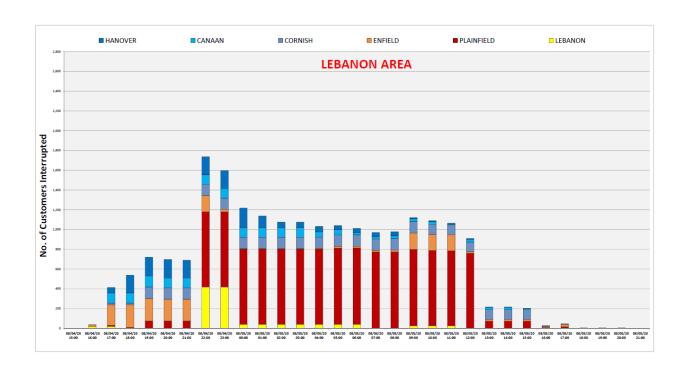
Please do not respond to this email.

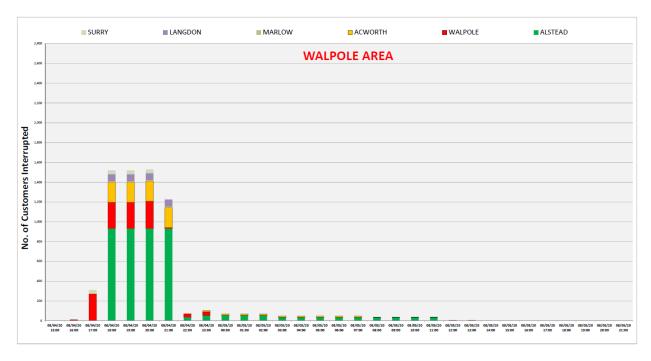
	DATE: Monday, August 03, 2020						
	<u>Lebanon</u>	<u>Salem</u>	<u>Charlestown</u>		<u>Comments</u>		
Weather Forecast	T-storm timing: 3- 10pm Tue. Peak wind gust timing: 9pm Tue- 2am Wed. 35-50mph	T-storm timing: 5-10pm Tue. Peak wind gust timing: 9pm Tue-2am Wed. 38-52mph	T-storm timing: 2-9pm Tue. Peak wind gust timing: 8pm Tue-1am Wed. 35-50mph				
Anticipated EERP Event Level	Level 4	Level 4	Level 4		n Confidence er EEI Table		
Resources				Totals	4 customer		
Internal Crews	7.5	6.5	1	15	service reps until 11pm		
Contractor Crews	0	4 + 2	0	6	until 11pm		
Total Line Crews available	7.5	12.5	1	21			
Tree Crews	6	9	1	16			
Wires Down	0	6	0	6			
Other Support	0	3	0	3			
EOC/Storm Room Status	N/A	N/A	N/A				
Municipal Room Status	N/A	N/A	N/A				
Customer Outage Count	N/A	N/A	N/A	Total			
Estimated Date/Time for Total Restoration	Click here to enter a date. Choose an item.	Click here to enter a date. Choose an item.	Click here to enter a date. Choose an item.				
Planned Storm Conference Calls	Tuesday August 4 <sup>th</sup> 1	:30pm					
Notifications with Regulators. NHPUC/NH OEM							

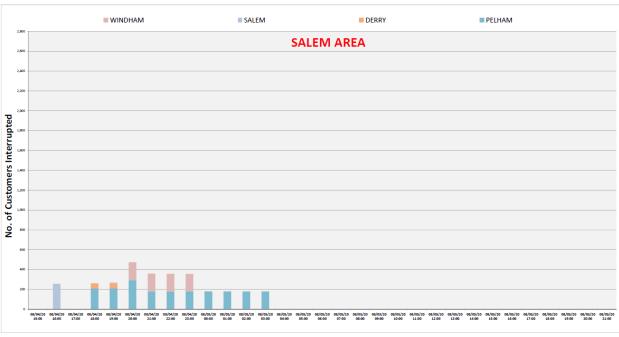
EII Event Index & Storm	Description	GP Expense Job	GP Capital Job	GP VM Job
Accounting	Tropical Storm Isaias		STORM-EXP- 2007	VGMT-2007

#### **Tropical Storm Isaias Reliability Indices**









ID	Feeder	Date	Time	Duration	Customers	Customer Minutes	Town	Comments	Cause	District
			Out	(Minutes)	Interrupted	Int.		BLOWN 15K LINE FUSE P28 CHOATE RD DUE LIMB ON LINE	TREE - BROKEN	
58866	7L1	8/4/2020	16 00	30	15	450	ENFIELD	BLOWN 25K LINE FUSE P19 STEVENS RD DUE TO FALLEN TREE	LIMB	LEBANON
58867	1L1	8/4/2020	16 32	42	23	966	LEBANON	BETWEEN P20 & P21 PTR 701228 B & C PH LOCKOUT - A PHASE MANUALLY OPENED - TREE	TREE FELL TREE - BROKEN	LEBANON
58873	9L1	8/4/2020	16 47	36	255	9,246	SALEM	BRANCH P28-P29 OLD ROCKINGHAM RD	LIMB	SALEM
58888	16L1	8/4/2020	17 19	480	46	22,080	HANOVER	BLOWN 25K LINE FUSE P179 HANOVER CENTER RD/TREE ON POLE BLOWN 25K FUSE P164 COUNTY RD- CLEARED TREE FROM P9 WHIPPLE	TREE FELL	LEBANON
58903	12L2	8/4/2020	16 28	61	10	610	WALPOLE	RD	TREE FELL	CHARLESTOWN
6 58915	7L1	8/4/2020	17 30	149	25	3 725	CANAAN	BLOWN 25K LINE FUSE P88 SOUTH RD, TREE DOWN P2 1/2 -P3 SOUTH ROAD.	TREE FELL	LEBANON
7 58918	7L1	8/4/2020	17 29	596	46	27,416	CANAAN	MANUALLY OPENED P18 CODFISH HILL RD TO MAKE REPAIRS DUE TO TREE ON LINE P29 CODFISH HILL RD	TREE FELL	LEBANON
8 58933	13L1	8/4/2020	17 57	69	1	69	SALEM	PINE LIMBS BROKE NEUTRAL PI EYSSI DR, CLEARED LIMBS & MADE REPAIR FROM POLE TO HOUSE	TREE - BROKEN LIMB	SALEM
9 58938	7L1	8/4/2020	17 54	810	1	810	CANAAN	REHUNG SERVICE FROM P132-2 SOUTH RD / TREE REMOVED FROM SERVICE	TREE FELL	LEBANON
								MANUALLY DE-ENERGIZED 25K STEP DOWN TRANSFORMER P85-50		
58941	16L1	8/4/2020	19 51	54	8	432	HANOVER	RUDDSBORO RD TO MAKE REPAIRS AT P99-50 TO P102 RUDDSBORO RD BLOWN 65K LINE FUSE P179 ROUTE 4/TREE CAME DOWN ON PRIMARY	TREE FELL	LEBANON
58943	7L1	8/4/2020	17 56	60	22	1,320	CANAAN	& NEUTRAL BETWEEN P6 & P7 GOOSE POND RD	TREE FELL	LEBANON
2 58944	1L2	8/4/2020	17 56	229	58	13,282	ENFIELD	BLOWN 15K LINE FUSE P20 SHAKER BLVD /TREE ON WIRES AT P40 SHAKER BLVD	TREE FELL	LEBANON
3 58973	16L1	8/4/2020	18 11	628	13	8,164	HANOVER	BLOWN 40K LINE FUSE P33 KING RD DUE TO TREE FALLING BETWEEN P6 & P7 HAYES HILL RD	TREE FELL	LEBANON
4 58996	12L2	8/4/2020	17 22	202	300	60,600	WALPOLE	3 BLOWN 80K LINE FUSES P43 PROSPECT RD DUE TO TREES FALLING AT P 46 & P90 WATKINS HILL RD	TREE FELL	CHARLESTOWN
5 59007	7L2	8/4/2020	18 07	177	18	3,186	ENFIELD	BLOWN 25K LINE FUSE P34 SHAKER HILL RD/UNKNOWN CAUSE	UNKNOWN	LEBANON
6 59008	12L1	8/4/2020	18 25	180	1219		WALPOLE	PTR 741026 RIVER ST LOCKOUT DUE TO TREE ON WIRE AT P147 RIVER ST	TREE FELL	CHARLESTOWN
7 59010	16L1	8/4/2020	18 12	502	31		HANOVER	BLOWN 25K LINE FUSE P13 DOGFORD RD/TREE BETWEEN P6 & P7 DOGFORD RD	TREE FELL	LEBANON
			17 45		71		HANOVER	BLOWN 25K LINE FUSE @ P52 MOOSE-MOUNTAIN RD / TREE REMOVED	TREE FELL	
8 58931	7L1	8/4/2020		1099				@ P70 MOOSE MOUNTAIN RD BLOWN 65K FUSE P128 MAMMOTH RD. CAUSE WINDS. NO TROUBLE		LEBANON
9 59031	14L2	8/4/2020	18 23	66	98		PELHAM	FOUND BLOWN 40K LINE FUSE AT ERMA AND GOOD HUE/TREE ON WIRES	UNKNOWN	SALEM
59047	13L1	8/4/2020	18 47	42	50	2,100	DERRY	BLOWN 25K LINE FUSE P155 NH ROUTE 4A/TREE LIMBS ON WIRES	TREE FELL TREE - BROKEN	SALEM
1 59051	1L2	8/4/2020	17 54	270	140	37,800	ENFIELD	BLOWN 25K LINE FUSE P155 NH ROUTE 4A/TREE LIMBS ON WIKES  BLOWN 80K FUSE P40 SHERBOURNE RD/SPAULDING HILL RD DUE TO	LIMB TREE - BROKEN	LEBANON
59060	14L2	8/4/2020	18 46	99	113	11,187	PELHAM	FALLEN TREE LIMB. BLOWN 15K LINE FUSE P13 PINNEO HILL RD / REMOVED TREE P13	LIMB	SALEM
59062	6L3	8/4/2020	19 00	1076	2	2,152	HANOVER	REHUNG PRIMARY P13-P13-3 MANUALLY OPENED 3-65K LINE FUSES P247 NH ROUTE 120, BLOWN 40K	TREE FELL	LEBANON
	47.0	0.4.4000	40.00	4000		40.5.400		LINE FUSE P309 NH ROUTE 120, BROKEN P249 NH ROUTE 120, LARGE	mp. p.p. p.p. v	
4 59066	1L2	8/4/2020	19 22	1200	163		PLAINFIELD	TREE FELL REMOVED SERVICE P11 CAROL AVE DUE TO DAMAGE FROM FALLEN	TREE FELL	LEBANON
5 59070	1L2	8/4/2020	19 27	7	1		SALEM	TREE DISCONNECTED SERVICE P28 LOCKEHAVEN RD TO MAKE REPAIRS TO	TREE FELL	SALEM
6 59074	7L2	8/4/2020	19 45	1130	1	1,130	ENFIELD	WIRES FROM FALLEN TREE. REMOVED SERVICE P2 SULLIVAN AVE DUE TO DAMAGE FROM FALLEN	TREE FELL	LEBANON
7 59075	9L2	8/4/2020	19 48	29	1	29	SALEM	TREE	TREE FELL	SALEM
8 59092	16L1	8/4/2020	18 42	932	1	932	HANOVER	RECONNECTED SERVICE P65 KING RD DUE TO FALLEN TREE	TREE FELL	LEBANON
59094	13L3	8/4/2020	19 57	84	1	84	SALEM	BLOWN 15K FUSE P14 PARK AVE, CAUSE TREE ON PHASE.	TREE FELL TREE - BROKEN	SALEM
59100	13L2	8/4/2020	19 58	107	3	321	SALEM	BLOWN 15K FUSE P34 ZION-HILL RD. CAUSE BRANCH CONTACT P34-2	LIMB	SALEM
59103	7L2	8/4/2020	20 12	1087	1	1,087	ENFIELD	TO FALLEN TREE LIMB	TREE - BROKEN LIMB	LEBANON
2 59104	13L3	8/4/2020	20 13	134	1	134	SALEM	RECONNECTED AND MADE REPAIRS TO SERVICE P5 BANNISTER RD DUE TO FALLEN TREE	TREE FELL	SALEM
3 59108	9L3	8/4/2020	20 10	484	1	484	WINDHAM	RECONNECTED AND MADE REPAIRS TO SERVICE P19 SEARLES RD DUE TO FALLEN TREE	TREE FELL	SALEM
4 59110	16L1	8/4/2020	18 00	389	81		HANOVER	BLOWN 40K LINE FUSE P151 HANOVER CENTER RD DUE TO TREE ON LINE BETWEEN P154-P155 HANOVER CENTER RD	TREE FELL	LEBANON
5 59111	1L2	8/4/2020	17 27	873	28		PLAINFIELD	BLOWN 25K LINE FUSE PS CAMP RD, BLOWN 40K LINE FUSE P23 HOPKINS RD, MULTIPLE TREES ON PRIMARY ON BURR RD	TREE FELL	LEBANON
								BLOWN 15K LINE FUSE P15 BACK BAY RD/LARGE LIMB ON WIRES P22		
59117	7L1	8/4/2020	17 38	612	19		CANAAN	BAY BAY RD MANUALLY OPENED TRIPSAVER P51 RANGE RD TO MAKE REPAIRS AT	TREE FELL	LEBANON
7 59124	9L3	8/4/2020	20 45	159	176		WINDHAM	P8 W SHORE DR TREE ON WIRES RECONNECTED AND MADE REPAIRS TO SERVICE P15-1 COLONIAL DR	TREE FELL	SALEM
59138	14L2	8/4/2020	21 19	265	1	265	PELHAM	DUE TO FALLEN TREE BLOWN 15K LINE FUSE P185 COUNTY RD/LARGE TREE BETWEEN P2	TREE FELL	SALEM
59142	12L2	8/4/2020	20 46	133	10	1 330	WALPOLE	AND P3 CARPENTER HILL RD BLOWN 25K LINE FUSE P19 NORTH RD / REHUNG PRIMARY P19-P23	TREE FELL	CHARLESTOWN
59147	12L1	8/4/2020	22 00	794	33	26,202	ALSTEAD	REMOVED TREE P21 - P22 3 BLOWN 25K LINE FUSES P202 COUNTY RD DUE TO TREE ON P7	TREE FELL	CHARLESTOWN
59148	12L2	8/4/2020	22 12	88	27	2,376	WALPOLE	MERRIAM RD	TREE FELL	CHARLESTOWN
59157	1L2	8/4/2020	22 26	37	437	16,169	LEBANON	PTR 751040 P18 SCHOOL ST, LEBANON LOCKED OUT / CAUSE UNKNOWN	UNKNOWN	LEBANON
3 59159	1L2	8/4/2020	22 26	851	686	583,786	PLAINFIELD	PTR 759001 P141 RT 120 LOCKED OUT FROM FALLEN TREES AND BROKEN POLE AT RT 120	TREE FELL	LEBANON
4 59161	12L1	8/4/2020	23 27	153	20	3,060	ALSTEAD	BLOWN 25K LINE FUSE NH ROUTE 12A. REMOVED TREE FROM PRIMARY P3 &P4 BONNIE-BREA DR	TREE FELL	CHARLESTOWN
					<u> </u>			BLOWN 25K STEPDOWN TRANSFORMER FUSE P4 BALL RD / REMOVED		
59162	12L1	8/4/2020	23 24	485	12	5,820	ACWORTH	TREE FROM PRIMARY & NEUTRAL BETWEEN P5 & P6 BALL RD BLOWN 3K LINE FUSE P184, REPLACED DAMAGED 10KVA	TREE FELL	CHARLESTOWN
6 59163	12L2	8/5/2020	0 10	814	2	1 620	WALPOLE	TRANSFORMER P184 COUNTY RD/ TREE ON PRIMARY P1 CARPENTER HILL RD	TREE FELL	CHARLESTOWN
								BLOWN 25K STEP DOWN TRANSFORMER FUSE P3 1/2 FERSON RD/TREE		
59167	16L1	8/5/2020	0 30	62	16	992	HANOVER	LIMBS ON WIRES	TREE FELL	LEBANON

											3
48	59168	1L2	8/5/2020	0 08	396	42	16,632	LEBANON	BLOWN 40K LINE FUSE P62 RT120 / REMOVED BURNING TREE P1-P2 KINNE RD	TREE FELL	LEBANON
49	59169	1L2	8/5/2020	5 00	750	21	15,750	ENFIELD	MANUALLY OPENED 40K LINE FUSE P29 METHODIST HILL TO REMOVE TREE FROM WIRE	TREE FELL	LEBANON
	59172	14L1	8/4/2020	20 58	381	178		PELHAM	BLOWN 40K FUSE P2 GRACE/S SHORE RD & BLOWN 40K FUSE P43 WOEKEL CIR. CAUSE TREE ON LINES P20 TO P21 SPRING RD	TREE FELL	SALEM
	59176	7L2	8/5/2020	4 23	636	1		ENFIELD	REPLACED SERVICE FROM P7 LAKE ST / TREES ON WIRES	TREE FELL	LEBANON
									MANUALLY OPENED LINE FUSE P34 CANAAN ST TO MAKE REPAIRS / PRIMARY DOWN P10 CORNO RD CAUSED BY LIMB ON WIRE P12 CORNO		
52	59178	7L1	8/4/2020	19 45	554	31	17,174	CANAAN	RD	TREE FELL	LEBANON
53	59179	16L1	8/5/2020	5 13	146	1	146	HANOVER	BLOWN 10K LINE FUSE P8 STEVENS RD / CLEARED BROKEN LIMB	TREE - BROKEN LIMB	LEBANON
54	59185	1L2	8/5/2020	6 52	227	2	454	PLAINFIELD	BLOWN 6K TRANSFORMER FUSE P7-2, BRANCH ON TRANSFORMER ARM	TREE - BROKEN LIMB	LEBANON
55	59194	7L1	8/5/2020	8 13	726	1	726	CANAAN	TREE ON SERVICE P14 JONES HILL RD / REATTACHED SERVICE	TREE FELL	LEBANON
56	59196	7L1	8/5/2020	8 29	143	2	286	ENFIELD	BLOWN 10K LINE FUSE P21 CHOATE RD, CLEARED TREE P23 CHOATE RD	TREE FELL	LEBANON
57	59200	12L1	8/5/2020	8 50	304	1	304	ALSTEAD	REATTACHED SERVICE, ALSTEAD CENTER RD	TREE FELL	CHARLESTOWN
58	59202	7L1	8/5/2020	8 45	422	7		CANAAN	BLOWN 25K LINE FUSE P201 RTE 4 / TREE REMOVED AT P3 HALL RD	TREE FELL	LEBANON
59	59203	7L1	8/4/2020	18 06	919	3	2,757	ENFIELD	BLOWN 10K TRANSFORMER FUSE P12 HAZEN RD NO CAUSE FOUND	UNKNOWN	LEBANON
60	59206	7L1	8/5/2020	4 44	345	21	7,245	CANAAN	BLOWN 25K LINE FUSE P43-50 SAWYER HILL RD, TREE FELL P60 SAWYER HILL	TREE FELL	LEBANON
61	59214	7L1	8/5/2020	9 44	345	2	690	ENFIELD	BLOWN 10K LINE FUSE P111-1 POTATO RD - TREE FELL P111-1	TREE FELL	LEBANON
62	59217	1L2	8/5/2020	9 55	113	172	19,436	LEBANON	MANUALLY OPENED PTR 751149 P33 EASTMAN HILL RD INTERSECTION FURLOW & EASTMAN HILL 2 LARGE TREES ON HENDRIX PRIMARY	TREE FELL	LEBANON
63	59221	12L2	8/5/2020	10 36	328	1	328	WALPOLE	REATTACHED SERVICE P46-1 PROSPECT HILL RD, TREE FELL	TREE FELL	CHARLESTOWN
64	59232	7L1	8/5/2020	12 57	92	13	1,196	CANAAN	MANUALLY OPENED 25K FUSE P51 GRISTMIILL HILL RD FOR TREE REMOVAL - TREE FELL P152-P153 ABBOTT RD	TREE FELL	LEBANON
65	59236	16L1	8/5/2020	13 05	192	1	192	HANOVER	BLOWN 10K LINE FUSE P74 THOMPSON RD, TREE CONTACT BETWEEN P75 & P76 THOMPSON RD	TREE FELL	LEBANON
66	59246	7L1	8/5/2020	12 57	463	5	2,315	CANAAN	REPLACED BAD 10KVA TRANSFORMER, CUTOUT AND CROSS ARM P140 ABBOTT RD / ALSO REPLACED CROSS ARM AT P150 ABBOTT RD	TREE FELL	LEBANON
67	59248	1L2	8/5/2020	17 00	30	21	630	ENFIELD	MANUALLY OPENED 40K LINE FUSE P29 METHODIST HILL RD TO REMOVE TREE FROM WIRE	TREE FELL	LEBANON

Forecaster: cody.fishman

#### **Heather Tebbetts**

From: DTN <EnergyEventIndex@dtn.com>
Sent: Saturday, December 5, 2020 7:24 AM
To: DL NH Londonderry Emergency Dispatch
Subject: Energy Event Index: Threat Level 3

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## Energy Event Index for ALGONQUIN POWER & UTILITIES CORP

Your forecast administrator: kathleen.kelley@libertyutilities.com

Valid Time: December 5, 2020 7:00 AM EST

Parameter	Region	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Wind Speed	Montauk NY	1	1	1	1	1	1	1	1	1	1
·	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Wind/Gust	Montauk NY	2	1	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Snow	Montauk NY	1	1	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	3	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Ice	Montauk NY	1	1	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Confidence Level	Montauk NY	Medium	High								
	Northern Lebanon Hanover NH	Medium	High								
	Northwest Monroe Bath NH	Medium	High								
	Southern Salem Derry NH	High	High	High	High	High	High	High	High	High	High
	Western Alstead Charlestown NH	Medium	High								

#### **Energy Event Index Definition**

No Leaves (Nov 1 - Mar 31)

囯囯	Wind Speed	Wind/Gust	Snow	Ice
1	< 40 mph	< 45 mph	< 6 in.	< 1/10 in.
2	>= 40 mph	>= 45 mph	>= 6 in.	>= 1/10 in.
3	>= 50 mph	>= 55 mph	>= 8 in.	>= 3/8 in.
4	>= 60 mph	>= 70 mph	>= 12 in.	>= 1/2 in.
5	>= 70 mph	>= 85 mph	>= 24 in.	>= 1 in.

	Confidence Level					
Low	Low <30% chance the most likely index level remains at that level through the event					
Medium	Medium 30-60% chance the most likely index level remains at that level through the event					
High	>=60% chance the most likely index level remains at that level through the event					

\*Note: Confidence is NOT a measure of probability of an event occurring; if you have an accompanying forecast discussion, that information can be found there. Confidence is a measure of how likely the forecasted index level will stay at that level from now through the event, or a way to measure the potential for variability in the forecast. So for example, if it is Monday and there are level 2 gusts forecasted on Wednesday with high confidence, and if your customizable threshold for high confidence is set at 60%, it means the following: There is a >=60% chance the most likely forecasted gusts will remain at level 2 with all updates from now through Wednesday.

For Phone Consulting: 1-800-361-4972

Issued Date: 12/05 0730 Forecaster: Cody Fishman

Zones (Forecast for next 30 hrs)	SALEM	CHARLESTOWN	LEBANON
Event	SNOW/GUSTS	SNOW	SNOW
Event Begin Time	11am Sat	10am Sat	11am Sat

Event End Time	2am Sun	8pm Sat	9pm Sat
Event Confidence	60%	20%	10%
Thunderstorm Wind Gusts			
Lightning Intensity			
Storm Direction			
Rain Amount			
Snow Amount	7-14"	2-6"	2-4"
Snow Ratio	6:1-9:1	7:1-10:1	8:1-10:1
Max Sustained Winds			
Wind Gust			
Temp. Extremes	53/28	36/20	44/25

UPDATE: Increased EEI-2/3 snow chances and decreased peak wind gusts in Salem.

#### LIBERTY UTILITIES SERVICE AREA 48 HOUR OUTLOOK:

SALEM: A Nor'easter will bring accumulating snow and gusty winds today and tonight. Rain is expected to change to snow between 10am-12pm today. Snow continues through the afternoon and eventually diminishing in the evening. Timing of heaviest snow: 2-8pm. See table above for more snow details. Wind gusts of 30-40 mph are likely this evening, with a slight chance of a peak gust to 40-45 mph between 5-10pm today. Sunday, dry and hazard-free. Wind gusts of 25-35 mph possible during the day.

Confidence: Confidence in snowfall amounts Saturday is medium-high. Confidence in snowfall amounts reaching hazard levels Saturday is high. EEI-2/3/4 snow chance: 80%/60%/5%. Confidence is medium that EEI-2 gusts will occur on Saturday. Chance for EEI-2 gusts: 30%. Confidence is high that no hazards will occur Sunday.

CHARLESTOWN: A Nor'easter is expected to bring accumulating snow and gusty winds today and tonight. Rain is expected to change to snow between 7-10am today. Snow continues through Saturday afternoon/evening and eventually diminishing overnight. The axis of heaviest snowfall continues to shift across the northeast, leaving the exact location of the heaviest snowfall uncertain, subtle changes in the track of low pressure will have a large impact on the heaviest snow totals. Timing of heaviest snow: 12-6pm. See table above for more snow details. Wind gusts of 35-45 mph possible late in the afternoon and evening today. Sunday, dry and hazard-free. Wind gusts of 25-35 mph possible during the day.

Confidence: Confidence in snowfall amounts Saturday is medium-low. Confidence in snowfall amounts reaching hazard levels Saturday is medium-high. EEI-2 snow chance: 10%. Confidence is high that wind gusts Saturday will not exceed hazard levels. Confidence is high that no hazards will occur Sunday.

LEBANON: A Nor'easter is expected to bring accumulating snow and gusty winds today and tonight. Rain is expected to change to snow between 7-10am Saturday. Snow continues through Saturday afternoon and eventually diminishing Saturday evening. The axis of heaviest snowfall continues to shift across the northeast, leaving the exact location of the heaviest snowfall uncertain, subtle changes in the track of low pressure will have a large impact on the heaviest snow totals. Timing of heaviest snow: 12-6pm. See table above for more snow details. Wind gusts of 30-40 mph possible late in the afternoon and overnight. Sunday, dry and hazard-free. Wind gusts of 25-35 mph possible during the day.

Confidence: Confidence in snowfall amounts Saturday is medium-low. Confidence in snowfall amounts reaching hazard levels Saturday is medium-high. Confidence is high that wind gusts Saturday will not exceed hazard levels. Confidence is high that no hazards will occur Sunday.

ALGONQUIN POWER SERVICE AREA 3-5 DAY OUTLOOK: Dry and hazard-free conditions will be in place Monday. The potential for a coastal system will have to be monitored on Tuesday. Right now, current indications have a track well offshore but conditions have become more favorable over the last 24 hours.

Confidence: Confidence is high that no hazards will occur Monday and Wednesday. Confidence is medium that no hazards occur Tuesday.

DAYS 6-10 OUTLOOK FOR SERVICE AREA: Limited weather concerns through the end of the week. Next potential organized system possible in the December 12-14th timeframe.

	<u>D</u> .	ATE: Friday, De	ecember 04, 2020		
	<u>Lebanon</u>	<u>Salem</u>	<u>Charlestown</u>		Comments
Weather Forecast	We are expecting a Nor'easter beginning Saturday morning 7am through Saturday evening. Snow totals 2" to 4" with wind gusts 25 to 35 mph	We are expecting a Nor'easter beginning Saturday morning 10am through Saturday evening. Snow totals 6" to 10" with wind gusts 25 to 35 mph	We are expecting a Nor'easter beginning 7am Saturday morning through Saturday evening. Snow totals 2" to 6" with wind gusts 25 to 35 mph		start out as rain turning to ly Saturday morning for all
Anticipated EERP Event Level	Level 4	Level 4	Level 4		
Resources	es				3customer service
Internal Crews	Crews will be on pager standby for the weekend	3 crews	Crews will be on pager standby for the weekend	3	reps from 3pm to 11pm. We will have the
Contractor Crews		10 crews		North Crews on pager standby fo	
Total Line Crews available	13 crews		13	the weekend We will have 5 wires	
Tree Crews	Pager standby	10	Pager standby	10	down/damage assessors day shift
Wires Down	2	10			and 5 nights shift
Other Support	Customer service	Customer service	Customer service		from gas ops.
EOC/Storm Room Status	N/A	N/A	N/A		
Municipal Room Status	N/A	N/A	N/A		
Customer Outage Count	N/A	N/A	N/A	Total	
Estimated Date/Time for Total Restoration	Click here to enter a date. Choose an item.	Click here to enter a date. Choose an item.	Click here to enter a date. Choose an item.		
Planned Storm Conference Calls	No call set up at this t	ime			
Notifications with Regulators. NHPUC/NH OEM	Not at this time				

EII Event Index &	Description	GP Expense Job	GP VM Job
Storm Accounting	EEI – 4 Winter Nor'easter	STORM-EXP-2015	VGMT-2015

Forecaster: cassie.happel

#### **Heather Tebbetts**

From: DTN <EnergyEventIndex@dtn.com>
Sent: Wednesday, December 16, 2020 6:57 AM
To: DL NH Londonderry Emergency Dispatch
Subject: Energy Event Index: Threat Level 3



### Energy Event Index for ALGONQUIN POWER & UTILITIES CORP

Your forecast administrator: kathleen.kelley@libertyutilities.com

Valid Time: December 16, 2020 7:00 AM EST

Parameter	Region	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Wind Speed	Montauk NY	1 1	1 1	1	1	Day 0	1	1 1	1	1 1	1 1
Willia Speed	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Wind/Gust	Montauk NY	2	2	1	1	1	1	1	1	1	1
· · · · · · · · · · · · · · · · · · ·	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Snow	Montauk NY	2	2	1	1	1	1	1	1	1	1
Onow	Northern Lebanon Hanover NH	3	3	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	3	3	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	3	3	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	3	3	1	1	1	1	1	1	1	1
Ice	Montauk NY	1	1	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Confidence Level	Montauk NY	Medium	Medium	High	High	Medium	Medium	High	High	High	High
	Northern Lebanon Hanover NH	Medium	Medium	High	High	Medium	Medium	High	High	High	High
	Northwest Monroe Bath NH	High	High	High	High	Medium	Medium	High	High	High	High
	Southern Salem Derry NH	High	High	High	High	Medium	Medium	High	High	High	High
	Western Alstead Charlestown NH	High	High	High	High	Medium	Medium	High	High	High	High

#### **Energy Event Index Definition**

No Leaves (Nov 1 - Mar 31)

EEI	Wind Speed	Wind/Gust	Snow	Ice
1	< 40 mph	< 45 mph	< 6 in.	< 1/10 in.
2	>= 40 mph	>= 45 mph	>= 6 in.	>= 1/10 in.
3	>= 50 mph	>= 55 mph	>= 8 in.	>= 3/8 in.
4	>= 60 mph	>= 70 mph	>= 12 in.	>= 1/2 in.
5	>= 70 mph	>= 85 mph	>= 24 in.	>= 1 in.

	Confidence Level
Low	<30% chance the most likely index level remains at that level through the event
Medium	30-60% chance the most likely index level remains at that level through the event
High	>=60% chance the most likely index level remains at that level through the event

\*Note: Confidence is NOT a measure of probability of an event occurring; if you have an accompanying forecast discussion, that information can be found there. Confidence is a measure of how likely the forecasted index level will stay at that level from now through the event, or a way to measure the potential for variability in the forecast. So for example, if it is Monday and there are level 2 gusts forecasted on Wednesday with high confidence, and if your customizable threshold for high confidence is set at 60%, it means the following: There is a >=60% chance the most likely forecasted gusts will remain at level 2 with all updates from now through Wednesday.

Forecast for Algonquin Power From DTN For Phone Consulting: 1-800-361-4972

Issued Date: 12/16 0700 Forecaster: Cassie Happel

Zones (Forecast for next 30 hrs)	SALEM	CHARLESTOWN	LEBANON
Event	SNOW	SNOW	SNOW
Event Begin Time	11pm Wed	11pm Wed	12am Thu
Event End Time	3pm Thu	2pm Thu	2pm Thu
Event Confidence	Medium	Medium	Medium
Thunderstorm Wind Gusts			
Lightning Intensity			
Storm Direction			
Rain Amount			
Snow Amount	9-13"	10-14"	8-12"
Snow Ratio	15:1	15:1	15:1
Max Sustained Winds			
Wind Gust			
Temp. Extremes	27/13	27/10	26/8

#### LIBERTY UTILITIES SERVICE AREA 48 HOUR OUTLOOK:

SALEM: Wednesday, dry conditions expected during the afternoon then moderate to heavy snow moves in during the late evening. See table above for likely snow amounts and timing. Worst case scenario snowfall amounts Wednesday night/Thursday of 13-17" possible. Winds may gust 35-40 mph Wednesday night through Thursday afternoon. Snow and breezy winds come to an end Thursday afternoon. Dry conditions Thursday night.

Confidence: Confidence is high that no hazards will occur through the day Wednesday. Confidence is high that EEI-2/3 snow will occur Wednesday night into Thursday. Confidence is medium in EEI-4 snow occurring. Chance of EEI-2/3/4 snowfall: 100%/70%/40%.

CHARLESTOWN: Wednesday, dry conditions expected during the afternoon then moderate to heavy snow moves in during the late evening. See table above for likely snow amounts and timing. Worst case scenario snowfall amounts Wednesday night/Thursday of 15-19" possible. Winds may gust 35-40 mph Wednesday night through Thursday afternoon. Snow and breezy winds come to an end Thursday afternoon. Dry conditions Thursday night.

Confidence: Confidence is high that no hazards will occur through the day Wednesday. Confidence is high that EEI-2/3 snow will occur Wednesday night into Thursday. Confidence is medium in EEI-4 snow occurring. Chance of EEI-2/3/4 snowfall: 100%/60%/40%.

LEBANON: Wednesday, dry conditions expected during the afternoon then moderate to heavy snow moves in during the late evening. See table above for likely snow amounts and timing. Worst case scenario snowfall amounts Wednesday night/Thursday of 12-15" possible. Winds may gust 35-40 mph Wednesday night through Thursday afternoon. Snow and breezy winds come to an end Thursday afternoon. Dry conditions Thursday night.

Confidence: Confidence is high that no hazards will occur through the day Wednesday. Confidence is high that EEI-2/3 snow will occur Wednesday night into Thursday. Confidence is medium in EEI-4 snow occurring. Chance of EEI-2/3/4 snowfall: 100%/50%/10%.

ALGONQUIN POWER SERVICE AREA 3-5 DAY OUTLOOK: Friday and Saturday, dry and hazard-free. Sunday, isolated to scattered light snow showers. Snowfall: less than 1".

Confidence: Confidence is high that no hazards will occur Friday through Sunday.

DAYS 6-10 OUTLOOK FOR SERVICE AREA: Light snow showers will be possible Monday and Tuesday. Another disturbance may develop at the end of the week that could bring another chance for accumulating snow and breezy winds but models differ in the location and timing so confidence is lower.

Go to WeatherSentry® Online for a complete view of the forecast and other business critical weather information.

	DAT	TE: Wednesday,	December 16, 2020		
	<u>Lebanon</u>	<u>Salem</u>	<u>Charlestown</u>		<u>Comments</u>
Weather Forecast	Moderate to Heavy snow will move in late this evening close to midnight and continue thru Thurs. afternoon. It is expected to be a dry snow – 12 to 15" is possible. Wind gusts 35-40 mph.	Moderate to Heavy snow will move in late this evening close to midnight and continue thru Thurs. afternoon. It is expected to be a dry snow – 13 to 1" is possible. Wind gusts 35-40 mph.	Moderate to Heavy snow will move in late this evening close to midnight and continue thru Thurs. afternoon. It is expected to be a dry snow – 15 to 19" is possible. Wind gusts 35-40 mph.		ratio is 15:1 which makes fluffy snow.
Anticipated EERP Event Level	Level 3	Level 3	Level 3		
Resources				Totals	Customer service
Internal Crews	7	4	See Lebanon	11	will have reps start at 6:00 am and
Contractor Crews	3	4		7	extend hours as
Total Line Crews available	10	8		18	needed. Wires down and damage assessors
Tree Crews	4	4		8	are ready to be
Wires Down	On standby	On standby	On standby		utilized if needed.
Other Support	Customer service	Customer service	Customer service		
EOC/Storm Room Status		Open at 6:00 AM	N/A		em Storm room will be 6:00 am tomorrow
Municipal Room Status	N/A	N/A	N/A		
Customer Outage Count	N/A	N/A	N/A	Total	
Estimated Date/Time for Total Restoration	Click here to enter a date. Choose an item.	Click here to enter a date. Choose an item.	Click here to enter a date. Choose an item.		
Planned Storm Conference Calls	No call set up at this	time			
Notifications with Regulators. NHPUC/NH OEM	Not at this time				

EII Event Index &	Description	GP Expense Job	GP VM Job
Storm Accounting	EEI – 3 Winter Storm Gail	STORM-EXP-2016	VGMT-2016

Forecaster: cody.fishman

#### **Heather Tebbetts**

From: DTN <EnergyEventIndex@dtn.com>
Sent: Thursday, December 24, 2020 12:57 PM
To: DL NH Londonderry Emergency Dispatch
Subject: Energy Event Index: Threat Level 3

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## Energy Event Index for ALGONQUIN POWER & UTILITIES CORP

Your forecast administrator: kathleen.kelley@libertyutilities.com

Valid Time: December 24, 2020 1:00 PM EST

Parameter	Region	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Wind Speed	Montauk NY	1	1	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Wind/Gust	Montauk NY	3	3	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	1	2	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	2	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	3	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	2	1	1	1	1	1	1	1	1
Snow	Montauk NY	1	1	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Ice	Montauk NY	1	1	1	1	1	1	1	1	1	1
	Northern Lebanon Hanover NH	1	1	1	1	1	1	1	1	1	1
	Northwest Monroe Bath NH	1	1	1	1	1	1	1	1	1	1
	Southern Salem Derry NH	1	1	1	1	1	1	1	1	1	1
	Western Alstead Charlestown NH	1	1	1	1	1	1	1	1	1	1
Confidence Level	Montauk NY	High	High	High	High	Medium	Medium	Medium	High	Medium	High
	Northern Lebanon Hanover NH	High	High	High	High	Medium	Medium	Medium	High	Medium	High
	Northwest Monroe Bath NH	High	High	High	High	Medium	Medium	Medium	High	Medium	High
	Southern Salem Derry NH	High	High	High	High	Medium	Medium	Medium	High	Medium	High
	Western Alstead Charlestown NH	High	High	High	High	Medium	Medium	Medium	High	Medium	High

#### **Energy Event Index Definition**

No Leaves (Nov 1 - Mar 31)

囯目	Wind Speed	Wind/Gust	Snow	Ice
1	< 40 mph	< 45 mph	< 6 in.	< 1/10 in.
2	>= 40 mph	>= 45 mph	>= 6 in.	>= 1/10 in.
3	>= 50 mph	>= 55 mph	>= 8 in.	>= 3/8 in.
4	>= 60 mph	>= 70 mph	>= 12 in.	>= 1/2 in.
5	>= 70 mph	>= 85 mph	>= 24 in.	>= 1 in.

	Confidence Level
Low	<30% chance the most likely index level remains at that level through the event
Medium	30-60% chance the most likely index level remains at that level through the event
High	>=60% chance the most likely index level remains at that level through the event

\*Note: Confidence is NOT a measure of probability of an event occurring; if you have an accompanying forecast discussion, that information can be found there. Confidence is a measure of how likely the forecasted index level will stay at that level from now through the event, or a way to measure the potential for variability in the forecast. So for example, if it is Monday and there are level 2 gusts forecasted on Wednesday with high confidence, and if your customizable threshold for high confidence is set at 60%, it means the following: There is a >=60% chance the most likely forecasted gusts will remain at level 2 with all updates from now through Wednesday.

For Phone Consulting: 1-800-361-4972

Issued Date: 12/24 1300 Forecaster: Cody Fishman

Zones (Forecast for next 30 hrs)	SALEM	CHARLESTOWN	LEBANON
Event	GUSTS/RAIN	GUSTS/RAIN	GUSTS/RAIN
Event Begin Time	11pm Thu	9pm Thu	9pm Thu

Event End Time	12pm Fri	10am Fri	10am Fri
Event Confidence	High	High	High
Thunderstorm Wind Gusts	50-60 mph	50-60 mph	50-60 mph
Lightning Intensity	Low	Low	Low
Storm Direction	N-NNE	N-NNE	N-NNE
Rain Amount	1.00-2.50"	1.00-2.50"	1.00-2.50"
Snow Amount			
Snow Ratio			
Max Sustained Winds	12-25 mph	12-25 mph	12-25 mph
Wind Gust	35-45 mph	30-40 mph	30-40 mph
Temp. Extremes	57/29	55/24	55/29

#### LIBERTY UTILITIES SERVICE AREA 48 HOUR OUTLOOK:

SALEM: Heavy rain and strong winds move into the area this evening and continue overnight. See table above for details. A short period will exist tonight/Friday morning when max gusts could reach 50-60 mph within heavier rain showers/thunderstorms, generally between 3-9am Fri. Friday, heavy rain and winds come to an end in the late morning. Total rainfall: 1.00-2.50".

Confidence: Confidence is high EEI-2 gusts will occur tonight/Friday morning. Confidence is medium EEI-3 gusts will occur tonight/Friday morning. Chance EEI-2 gust: 70%. EEI-3 gust chance: 50%. Confidence is medium hazard rainfall will occur tonight/Friday morning. Chance rain >1": 70%.

CHARLESTOWN: Heavy rain and strong winds move into the area this evening and continue overnight. See table above for details. A short period will exist tonight/Friday morning when max gusts could reach 50-60 mph within heavier rain showers/thunderstorms, generally between 3-9am Fri. Friday, heavy rain and winds come to an end in the late morning. An isolated light snow shower is possible in the evening but little to no accumulation is expected. Total rainfall: 1.00-2.50".

Confidence: Confidence is high EEI-2 gusts will occur tonight/Friday morning. Confidence is medium EEI-3 gusts will occur tonight/Friday morning. Chance EEI-2 gust: 70%. EEI-3 gust chance: 40%. Confidence is medium hazard rainfall will occur tonight/Friday morning. Chance rain >1": 70%.

LEBANON: Heavy rain and strong winds move into the area this evening and continue overnight. See table above for details. A short period will exist tonight/Friday morning when max gusts could reach 50-60 mph within heavier rain showers/thunderstorms, generally between 3-9am Fri. Friday, heavy rain and winds come to an end in the late morning. An isolated light snow shower is possible in the evening but little to no accumulation is expected. Total rainfall: 1.00-2.50".

Confidence: Confidence is high EEI-2 gusts will occur tonight/Friday morning. Confidence is medium EEI-3 gusts will occur tonight/Friday morning. Chance EEI-2 gust: 70%. EEI-3 gust chance: 40%. Confidence is medium hazard rainfall will occur tonight/Friday morning. Chance rain >1": 70%.

ALGONQUIN POWER SERVICE AREA 3-5 DAY OUTLOOK: Saturday and Sunday, dry and hazard-free. On Monday, mostly dry during the day. Scattered rain/snow showers may develop in the evening/overnight. Rainfall: up to 0.10". Little to no snow accumulation expected.

Confidence: Confidence is high no hazards will occur Saturday through Monday.

DAYS 6-10 OUTLOOK FOR SERVICE AREA: A weak system will continue to move through for Tuesday. The next possible system looks to occur late next week. Main impacts being breezy winds and heavy rain.

Go to WeatherSentry® Online for a complete view of the forecast and other business critical weather information.

Please do not respond to this email.

	DAT	TE: Wednesday,	<b>December 23, 2020</b>		
	<u>Lebanon</u>	<u>Salem</u>	<u>Charlestown</u>		Comments
Weather Forecast	Heavy Rain and wind move in Thursday evening through Friday afternoon. Peak wind gusts between 3-9am Friday reaching upwards of 45-60 MPH.	Heavy Rain and wind move in Thursday evening through Friday afternoon. Peak wind gusts between 3-9am Friday reaching upwards of 50-60 MPH.	Heavy Rain and wind move in Thursday evening through Friday afternoon. Peak wind gusts between 3-9am Friday reaching upwards of 45-60 MPH.	mph thro peak gust	t will range from 30-40 ughout the event with is between 45-60 mph. I rain will diminish early ernoon.
Anticipated EERP Event Level	Level 3	Level 3	Level 3		
Resources				Totals	We will have other
Internal Crews	2	3	1	6	support on stand-by including customer
Contractor Crews		6		6	service if needed.
Total Line Crews available	2	9	1	12	Contractor crews can be moved up North if needed.
Tree Crews	2	4	2	8	North in fleeded.
Wires Down					
Other Support					
EOC/Storm Room Status					
Municipal Room Status	N/A	N/A	N/A		
Customer Outage Count	N/A	N/A	N/A	Total	
Estimated Date/Time for Total Restoration	Click here to enter a date. Choose an item.	Click here to enter a date. Choose an item.	Click here to enter a date. Choose an item.		
Planned Storm Conference Calls	First call 12/23 – 10:0				
Notifications with Regulators. NHPUC/NH OEM	Not at this time				

EII Event Index &	Description	GP Expense Job	GP VM Job
Storm Accounting	EEI – 3 Christmas Wind Storm	STORM-EXP-2017	VGMT-2017