

Northern Utilities
Simplified Market Based Allocator (MBA) Calculations
ALLOCATION OF NORTHERN FIXED CAPACITY COSTS BETWEEN ME & NH DIVISIONS

Total Fixed Capacity Costs To Be Allocated

	NUI Total
Pipeline Demand	\$ 17,953,274
Storage Demand	\$ 24,992,506
On-system Peaking Demand	\$ 3,992,171
Subtotal Demand	\$ 46,937,950

Capacity Release (Credit)	\$ -
Asset Management (Credit)	\$ (9,902,100)
Total Net Demand Costs	\$ 37,035,850

Off-System Peaking Demand \$ 9,621,667 PR Allocation on Page 5

Total Demand Costs \$ 46,657,516

Proportional Responsibility (PR) Allocators

Allocation of Product and Pipeline Demand Costs (including Injections) to Months

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Annual
Design Year Pipeline Sendout	1,251,924	1,257,820	1,257,819	1,207,638	1,484,768	1,216,238	692,758	427,492	407,061	428,105	513,700	888,799	11,034,123
Rank	4	2	3	6	1	5	8	11	12	10	9	7	
% Max Month	84.32%	84.71%	84.71%	81.34%	100.00%	81.91%	46.66%	28.79%	27.42%	28.83%	34.60%	59.86%	
PR	0.60%	0.00%	0.13%	3.58%	15.29%	0.12%	1.51%	0.13%	2.28%	0.00%	0.64%	1.89%	26.16%
CumPR	10.74%	10.88%	10.88%	10.03%	26.16%	10.14%	4.56%	2.41%	2.28%	2.41%	3.05%	6.45%	100.00%
Product and Pipeline Demand Costs	\$ 1,928,863	\$ 1,952,631	\$ 1,952,625	\$ 1,800,189	\$ 4,696,796	\$ 1,820,988	\$ 819,006	\$ 432,629	\$ 410,169	\$ 433,369	\$ 548,367	\$ 1,157,641	\$ 17,953,274

Allocation of Storage Injection Fees to Months

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Annual
Storage Injection Volume	-	-	-	-	-	-	-	-	-	-	-	-	-
Design Year Pipeline Sendout	1,251,924	1,257,820	1,257,819	1,207,638	1,484,768	1,216,238	692,758	427,492	407,061	428,105	513,700	888,799	11,034,123
% of Deliveries Injected	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Injection Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Allocation of Storage Demand Costs to Months

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Annual
Design Year Storage	384,599	949,630	1,116,303	1,034,206	647,868	-	-	-	-	-	-	-	4,132,606
Rank	5	3	1	2	4	6	6	6	6	6	6	6	
% Max Month	34.45%	85.07%	100.00%	92.65%	58.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
PR	6.89%	9.01%	7.35%	3.79%	5.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	32.94%
CumPR	6.89%	21.80%	32.94%	25.59%	12.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Storage Demand Costs	\$ 1,722,128	\$ 5,447,705	\$ 8,232,513	\$ 6,394,467	\$ 3,195,692	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,992,506
Plus Injection Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 1,722,128	\$ 5,447,705	\$ 8,232,513	\$ 6,394,467	\$ 3,195,692	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,992,506

Allocation of All Peaking Demand Costs Excluding Off-System Peaking

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Annual
Design Year Peaking Volumes	1,795	79,083	112,600	79,389	13,513	1,794	1,860	1,800	1,860	1,860	1,800	1,860	299,213
Rank	11	3	1	2	4	12	8	10	7	6	9	5	
% Max Month	1.59%	70.23%	100.00%	70.51%	12.00%	1.59%	1.65%	1.60%	1.65%	1.65%	1.60%	1.65%	
PR	0.00%	19.41%	29.49%	0.14%	2.59%	0.13%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	51.77%
CumPR	0.13%	22.14%	51.77%	22.27%	2.73%	0.13%	0.14%	0.13%	0.14%	0.14%	0.13%	0.14%	100.00%
Peaking Demand Costs	\$ 5,304	\$ 883,785	\$ 2,066,699	\$ 889,215	\$ 108,876	\$ 5,300	\$ 5,587	\$ 5,321	\$ 5,587	\$ 5,587	\$ 5,321	\$ 5,587	\$ 3,992,171

Northern Utilities
Simplified Market Based Allocator (MBA) Calculations
ALLOCATION OF NORTHERN FIXED CAPACITY COSTS BETWEEN ME & NH DIVISIONS

Pipeline Demand	NUI-FXW-5, PG 1, LN 1
Storage Demand	NUI-FXW-5, PG 1, LN 2 + 3
<u>On-system Peaking Demand</u>	NUI-FXW-5, PG 1, LN 4 + 5
Subtotal Demand	Sum LN 3 : LN 5
Capacity Release (Credit)	NUI-FXW-5, PG 6
<u>Asset Management (Credit)</u>	NUI-FXW-5, PG 6
Total Net Demand Costs	Sum LN 6 : LN 9
Off-System Peaking Demand	NUI-FXW-5, PG 5
Total Demand Costs	LN 10 + LN 12

Proportional Responsibility (PR) Allocators

Allocation of Product and Pipeline Demand Costs (including Injections) to Months

Design Year Pipeline Sendout	Company Analysis
Rank	LN 20 Ranking
% Max Month	LN 20 / LN 20 MAX
PR	The difference between LN 22 for the month and LN 22 for next highest rank
CumPR	Cumulative Values, LN 23
Product and Pipeline Demand Costs	LN 24 * LN 3

Allocation of Storage Injection Fees to Months

Storage Injection Volume	Company Analysis
Design Year Pipeline Sendout	LN 20
% of Deliveries Injected	LN 29 / Sum (LN 29 : LN 30)
Injection Fees	LN 31 * LN 25

Allocation of Storage Demand Costs to Months

Design Year Storage	Company Analysis
Rank	LN 36 Ranking
% Max Month	LN 36 / LN 36 MAX
PR	The difference between LN 38 for the month and LN 38 for next highest rank
CumPR	Cumulative Values, LN 39
Storage Demand Costs	LN 40 * LN 4
Plus Injection Fees	LN 32
TOTAL	LN 41 + LN 42

Allocation of All Peaking Demand Costs Excluding Off-System Peaking

Design Year Peaking Volumes	Company Analysis
Rank	LN 47 Ranking
% Max Month	LN 47 / LN 47 MAX
PR	The difference between LN 49 for the month and LN 49 for next highest rank
CumPR	Cumulative Values, LN 50
Peaking Demand Costs	LN 51 * LN 5

Northern Utilities
Simplified Market Based Allocator (MBA) Calculations
ALLOCATION OF NORTHERN FIXED CAPACITY COSTS BETWEEN ME & NH DIVISIONS

	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual
Pipeline & Product Demand	\$ 1,928,863	\$ 1,952,631	\$ 1,952,625	\$ 1,800,189	\$ 4,696,796	\$ 1,820,988	\$ 819,006	\$ 432,629	\$ 410,169	\$ 433,369	\$ 548,367	\$ 1,157,641	\$ 17,953,274
Storage Incl Inj Fees	\$ 1,722,128	\$ 5,447,705	\$ 8,232,513	\$ 6,394,467	\$ 3,195,692	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 24,992,506
On-system Peaking	\$ 5,304	\$ 883,785	\$ 2,066,699	\$ 889,215	\$ 108,876	\$ 5,300	\$ 5,587	\$ 5,321	\$ 5,587	\$ 5,587	\$ 5,321	\$ 5,587	\$ 3,992,171
Less: Injection Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Less: Capacity Release	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Less: Asset Mgmt	\$ (1,650,350)	\$ (1,650,350)	\$ (1,650,350)	\$ (1,650,350)	\$ (1,650,350)	\$ (1,650,350)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (9,902,100)
Total Demand	\$ 2,005,945	\$ 6,633,771	\$ 10,601,487	\$ 7,433,521	\$ 6,351,014	\$ 175,938	\$ 824,593	\$ 437,950	\$ 415,757	\$ 438,956	\$ 553,689	\$ 1,163,229	\$ 37,035,850

Capacity Cost Allocator based on Design Year Firm Sendout

	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Annual
Therms													
Maine	953,078	1,363,286	1,655,363	1,470,818	1,299,001	742,868	427,912	252,221	240,495	254,997	306,067	513,458	9,479,564
New Hampshire	685,239	1,007,317	1,192,761	1,033,962	885,575	475,164	266,707	177,072	168,426	174,968	209,433	377,201	6,653,824
Total	1,638,317	2,370,603	2,848,124	2,504,780	2,184,576	1,218,032	694,618	429,292	408,921	429,965	515,500	890,659	16,133,388

	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual
Percentage of Total													
Maine	58.17%	57.51%	58.12%	58.72%	59.46%	60.99%	61.60%	58.75%	58.81%	59.31%	59.37%	57.65%	58.49%
New Hampshire	41.83%	42.49%	41.88%	41.28%	40.54%	39.01%	38.40%	41.25%	41.19%	40.69%	40.63%	42.35%	41.51%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Allocation of Demand Costs by Division

Maine	\$1,166,942	\$3,814,947	\$6,161,708	\$4,364,996	\$3,776,464	\$107,303	\$507,981	\$257,307	\$244,515	\$260,330	\$328,741	\$670,593	\$21,661,828
New Hampshire	\$839,002	\$2,818,823	\$4,439,780	\$3,068,525	\$2,574,550	\$68,635	\$316,612	\$180,643	\$171,242	\$178,627	\$224,948	\$492,636	\$15,374,022
Total	\$ 2,005,945	\$ 6,633,771	\$ 10,601,487	\$ 7,433,521	\$ 6,351,014	\$ 175,938	\$ 824,593	\$ 437,950	\$ 415,757	\$ 438,956	\$ 553,689	\$ 1,163,229	\$ 37,035,850

Detailed Allocation of Demand Costs by Division

Maine	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	
Pipeline & Product Demand	\$ 1,122,101	\$ 1,122,918	\$ 1,134,888	\$ 1,057,079	\$ 2,792,827	\$ 1,110,606	\$ 504,539	\$ 254,181	\$ 241,229	\$ 257,016	\$ 325,582	\$ 667,372	\$ 10,590,338	58.99%
Storage Incl Injection Fees	\$ 1,001,834	\$ 3,132,865	\$ 4,784,832	\$ 3,754,859	\$ 1,900,235	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,574,625	58.32%
On-system Peaking	\$ 3,085	\$ 508,247	\$ 1,201,190	\$ 522,151	\$ 64,740	\$ 3,233	\$ 3,442	\$ 3,126	\$ 3,286	\$ 3,314	\$ 3,159	\$ 3,221	\$ 2,322,194	58.17%
Less: Injection Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
Capacity Release (Credit)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
Asset Management (Credit)	\$ (960,078)	\$ (949,083)	\$ (959,203)	\$ (969,093)	\$ (981,337)	\$ (1,006,536)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (5,825,329)	58.83%
Total Allocated Demand	\$ 1,166,942	\$ 3,814,947	\$ 6,161,708	\$ 4,364,996	\$ 3,776,464	\$ 107,303	\$ 507,981	\$ 257,307	\$ 244,515	\$ 260,330	\$ 328,741	\$ 670,593	\$ 21,661,828	58.49%

New Hampshire	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	
Pipeline & Product Demand	\$ 806,762	\$ 829,712	\$ 817,737	\$ 743,110	\$ 1,903,969	\$ 710,382	\$ 314,467	\$ 178,448	\$ 168,940	\$ 176,353	\$ 222,786	\$ 490,270	\$ 7,362,936	41.01%
Storage Incl Injection Fees	\$ 720,294	\$ 2,314,840	\$ 3,447,681	\$ 2,639,608	\$ 1,295,457	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,417,880	41.68%
On-system Peaking	\$ 2,218	\$ 375,538	\$ 865,510	\$ 367,064	\$ 44,136	\$ 2,068	\$ 2,145	\$ 2,195	\$ 2,301	\$ 2,274	\$ 2,162	\$ 2,366	\$ 1,669,977	41.83%
Less: Injection Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
Capacity Release	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.00%
Asset Management	\$ (690,272)	\$ (701,267)	\$ (691,147)	\$ (681,257)	\$ (669,013)	\$ (643,814)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (4,076,771)	41.17%
Total Allocated Demand	\$ 839,002	\$ 2,818,823	\$ 4,439,780	\$ 3,068,525	\$ 2,574,550	\$ 68,635	\$ 316,612	\$ 180,643	\$ 171,242	\$ 178,627	\$ 224,948	\$ 492,636	\$ 15,374,022	41.51%

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Simplified Market Based Allocator (MBA) Calculations
ALLOCATION OF NORTHERN FIXED CAPACITY COSTS BETWEEN ME & NH DIVISIONS

53		
54	Pipeline & Product Demand	LN 25
55	Storage	LN 43
56	Peaking	LN 52
57	Less: Injection Fees	-(LN 32)
58	Less: Capacity Release	-(LN 8 / 5)
59	Less: Asset Management	-(LN 9 / 6)
60	Total Demand	Sum (LN 54 : LN 59)
61		
62	Capacity Cost Allocator based on Design Year Firm Sendout	
63		
64	Therms	
65	Maine	Company Analysis
66	New Hampshire	Company Analysis
67	Total	LN 65 + LN 66
68		
69	Percentage of Total	
70	Maine	LN 65 / LN 67
71	New Hampshire	LN 66 / LN 67
72	Total	LN 70 + LN 71
73		
74	Allocation of Demand Costs by Division	
75	Maine	LN 60 * LN 70
76	New Hampshire	LN 60 * LN 71
77	Total	LN 75 + LN 76
78		
79	Detailed Allocation of Demand Costs by Division	
80	Maine	
81	Pipeline & Product Demand	LN 54 * LN 70
82	Storage	LN 55 * LN 70
83	Peaking	LN 56 * LN 70
84	Injection Fees	LN 57 * LN 70
85	Capacity Release (Credit)	LN 58 * LN 70
86	Asset Management (Credit)	LN 59 * LN 70
87	Total Allocated Demand	Sum (LN 81 : LN 86)
88		
89	New Hampshire	
90	Pipeline & Product Demand	LN 54 * LN 71
91	Storage	LN 55 * LN 71
92	Peaking	LN 56 * LN 71
93	Injection Fees	LN 57 * LN 71
94	Capacity Release	LN 58 * LN 71
95	Asset Management (Credit)	LN 59 * LN 71
96	Total Allocated Demand	Sum (LN 90 : LN 95)

Northern Utilities
Simplified Market Based Allocator (MBA) Calculations
ALLOCATION OF NORTHERN FIXED CAPACITY COSTS BETWEEN ME & NH DIVISIONS

97 **Off-System Peaking Demand Costs** \$ 9,621,667

98
99 **Allocation of Off-system Peaking Demand Costs to Months**

	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Annual
Design Year Peaking Volumes	-	84,071	361,402	183,548	38,427	-	-	-	-	-	-	-	667,448
Rank	5	3	1	2	4	5	5	5	5	5	5	5	
% Max Month	0.00%	23.26%	100.00%	50.79%	10.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
PR	0.00%	4.21%	49.21%	13.76%	2.66%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	69.84%
CumPR	0.00%	6.87%	69.84%	20.63%	2.66%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Peaking Demand Costs	\$ -	\$ 660,823	\$ 6,720,056	\$ 1,985,025	\$ 255,763	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,621,667

108 **Capacity Cost Allocator based on Design Year Sales**

	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual
Therms													
Maine	769,970	1,118,218	1,373,487	1,222,295	1,075,734	602,565	335,601	186,167	184,179	197,150	232,899	397,265	7,695,530
New Hampshire	473,924	746,005	884,060	759,575	635,070	312,572	164,969	91,875	82,497	87,972	108,619	227,211	4,574,349
Total	1,243,894	1,864,223	2,257,548	1,981,870	1,710,804	915,137	500,570	278,043	266,676	285,122	341,518	624,476	12,269,879

	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Annual
Percentage of Total													
Maine	61.90%	59.98%	60.84%	61.67%	62.88%	65.84%	67.04%	66.96%	69.06%	69.15%	68.20%	63.62%	61.01%
New Hampshire	38.10%	40.02%	39.16%	38.33%	37.12%	34.16%	32.96%	33.04%	30.94%	30.85%	31.80%	36.38%	38.99%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

120 **Allocation of Off-System Peaking Demand Costs by Division**

Maine	\$0	\$396,382	\$4,088,469	\$1,224,241	\$160,821	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,869,912
New Hampshire	\$0	\$264,441	\$2,631,588	\$760,784	\$94,942	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,751,755
Total	\$ -	\$ 660,823	\$ 6,720,056	\$ 1,985,025	\$ 255,763	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,621,667

Total Weighted Average MPR Factor

Maine	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	
Total Pipeline, Storage & On-system	\$ 1,166,942	\$ 3,814,947	\$ 6,161,708	\$ 4,364,996	\$ 3,776,464	\$ 107,303	\$ 507,981	\$ 257,307	\$ 244,515	\$ 260,330	\$ 328,741	\$ 670,593	\$ 21,661,828	58.49%
Total Off-system Peaking	\$0	\$396,382	\$4,088,469	\$1,224,241	\$160,821	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$ 5,869,912	61.01%
Total Demand Cost Allocation	\$ 1,166,942	\$ 4,211,329	\$ 10,250,176	\$ 5,589,237	\$ 3,937,285	\$ 107,303	\$ 507,981	\$ 257,307	\$ 244,515	\$ 260,330	\$ 328,741	\$ 670,593	\$ 27,531,741	59.01%
New Hampshire	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	
Total Pipeline, Storage & On-system	\$ 839,002	\$ 2,818,823	\$ 4,439,780	\$ 3,068,525	\$ 2,574,550	\$ 68,635	\$ 316,612	\$ 180,643	\$ 171,242	\$ 178,627	\$ 224,948	\$ 492,636	\$ 15,374,022	41.51%
Total Off-system Peaking	\$0	\$264,441	\$2,631,588	\$760,784	\$94,942	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$ 3,751,755	38.99%
Total Demand Cost Allocation	\$ 839,002	\$ 3,083,265	\$ 7,071,367	\$ 3,829,309	\$ 2,669,492	\$ 68,635	\$ 316,612	\$ 180,643	\$ 171,242	\$ 178,627	\$ 224,948	\$ 492,636	\$ 19,125,776	40.99%
Total Northern	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	
Total Pipeline, Storage & On-system	\$ 2,005,945	\$ 6,633,771	\$ 10,601,487	\$ 7,433,521	\$ 6,351,014	\$ 175,938	\$ 824,593	\$ 437,950	\$ 415,757	\$ 438,956	\$ 553,689	\$ 1,163,229	\$ 37,035,850	
Total Off-system Peaking	\$ -	\$ 660,823	\$ 6,720,056	\$ 1,985,025	\$ 255,763	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,621,667	
Total Demand Cost Allocation	\$ 2,005,945	\$ 7,294,594	\$ 17,321,544	\$ 9,418,546	\$ 6,606,777	\$ 175,938	\$ 824,593	\$ 437,950	\$ 415,757	\$ 438,956	\$ 553,689	\$ 1,163,229	\$ 46,657,517	

97	Off-System Peaking Demand Costs	LN 12
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Allocation of Off-system Peaking Demand Costs to Months

100		
101	Design Year Peaking Volumes	Company Analysis
102	Rank	LN 101 Ranking
103	% Max Month	LN 101 / LN 101 MAX
104	PR	The difference between LN 103 for the month and LN 103 for next highest rank
105	CumPR	Cumulative Values, LN 104
106	Peaking Demand Costs	LN 105 * LN 97

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Capacity Cost Allocator based on Design Year Sales

108		
109		
110	Therms	
111	Maine	Company Analysis
112	New Hampshire	Company Analysis
113	Total	LN 111 + LN 112

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115	Percentage of Total	
116	Maine	LN 111 / LN 113
117	New Hampshire	LN 112 / LN 113
118	Total	LN 116 + LN 117

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Allocation of Off-System Peaking Demand Costs by Division

120		
121	Maine	LN 106 * LN 116
122	New Hampshire	LN 106 * LN 117
123	Total	LN 121 + LN 122

Total Weighted Average MPR Factor

124	Maine	
125	Total Pipeline, Storage & On-system	LN 87
126	Total Off-system Peaking	LN 121
127	Total Demand Cost Allocation	LN 125 + LN 126

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129	New Hampshire	
130	Total Pipeline, Storage & On-system	LN 96
131	Total Off-system Peaking	LN 122
132	Total Demand Cost Allocation	LN 130 + Ln 131

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134	Total Northern	
135	Total Pipeline, Storage & On-system	LN 125 + LN 130
136	Total Off-system Peaking	LN 126 + LN 131
137	Total Demand Cost Allocation	LN 127 + LN 132

Northern Utilities - NEW HAMPSHIRE DIVISION
Simplified Market Based Allocator (SMBA) Calculations
DEMAND COSTS

NH Division Total Annual Demand Cost Allocation		
1	Resource	Costs
2	Pipeline & Product Demand	\$ 7,362,936
3	Storage	\$ 10,417,880
4	On-system Peaking	\$ 1,669,977
5	Total Gross Demand Cost	\$ 19,450,793
6		
7	Capacity Assignment Demand Revenue Estimate	\$ 5,012,735
8	NH Total Pipeline, Storage & Peaking Demand Cost	\$ 19,450,793
9	Capacity Assignment as % of Total Gross Demand Cost	25.77%
10		
11		Costs
12	Pipeline & Product Demand	\$ 1,897,529
13	Storage	\$ 2,684,830
14	On-system Peaking	\$ 430,376
15	Total Capacity Assignment Credit	\$ 5,012,735
16		
17	NH Net Annual Demand Cost (Less Capacity Assignment)	
18		Costs
19	Pipeline & Product Demand	\$ 5,465,407
20	Storage	\$ 7,733,050
21	On-system Peaking	\$ 1,239,601
22	Total Net Demand Cost (Less Capacity Assignment)	\$ 14,438,058
23		
24	DEVELOPMENT OF BASE AND REMAINING PIPELINE DEMAND COSTS	
25		MMBtu/day
26	Pipeline MDQ	16,645
27	Less 25.77% NH Transp. Capacity Assignment	(4,290)
28	Net Pipeline MDQ	12,355
29		
30	Net Pipeline MDQ	12,355
31	Less: Firm Sales Base Use	3,536
32	Remaining Pipeline MDQ	8,820
33		
34		Unit Cost
35	Pipeline Unit Cost	\$442.35
36		
37		Costs
38	Pipeline & Product Demand	\$ 5,465,407
39	Less: Base Pipeline Use	\$ 1,563,940
40	Remaining Pipeline Use	\$ 3,901,466

1	Resource	
2	Pipeline & Product Demand	Attachment NUI-CAK-1, LN 90 + Attachment NUI-CAK-1, LN 93
3	Storage	Attachment NUI-CAK-1, LN 91
4	On-system Peaking	Attachment NUI-CAK-1, LN 92
5	Total Gross Demand Cost	Sum (LN 2 : LN 4)
6		
7	Capacity Assignment Demand Revenue Estimate	Attachment NUI-FXW-6, Page 1
8	NH Total Pipeline, Storage & Peaking Demand Cost	LN 5
9	Capacity Assignment as % of Total Gross Demand Cost	LN 7 / LN 8
10		
11		
12	Pipeline & Product Demand	LN 2 * LN 9
13	Storage	LN 3 * LN 9
14	On-system Peaking	LN 4 * LN 9
15	Total Capacity Assignment Credit	Sum (LN 12 : LN 14)
16		
17	NH Net Annual Demand Cost (Less Capacity Assignment)	
18		
19	Pipeline & Product Demand	LN 2 - LN 12
20	Storage	LN 3 - LN 13
21	On-system Peaking	LN 4 - LN 14
22	Total Net Demand Cost (Less Capacity Assignment)	LN 5 - LN 15
23		
24	DEVELOPMENT OF BASE AND REMAINING PIPELINE DEMAND (	
25		
26	Pipeline MDQ	Company Analysis
27	Less 25.77% NH Transp. Capacity Assignment	-(LN 26) * LN 9
28	Net Pipeline MDQ	Sum (LN 26 : LN 27)
29		
30	Net Pipeline MDQ	LN 28
31	Less: Firm Sales Base Use	Attachment NUI-CAK-3, LN 48 / 10
32	Remaining Pipeline MDQ	LN 30 - LN 31
33		
34		
35	Pipeline Unit Cost	LN 19 / LN 30
36		
37		
38	Pipeline & Product Demand	LN 19
39	Less: Base Pipeline Use	LN 35 * LN 31
40	Remaining Pipeline Use	LN 38 - LN 39

Northern Utilities - NEW HAMPSHIRE DIVISION
Simplified Market Based Allocator (SMBA) Calculations
DEMAND COSTS

41 **NH DIVISION MONTHLY PROPORTIONAL RESPONSIBILITY (PR ALLOCATORS)**

42 (Based on NH Firm Sales Sendout for Remaining Temperature Sensitive Load)

43

44 All Months	Nov	Dec	Jan	Feb	Mar	Apr
45 Remaining Load for All Months	3,712,185	5,709,500	6,884,032	5,870,407	4,771,592	2,439,637
46 Rank	5	3	1	2	4	6
47 % Max Month	53.92%	82.94%	100.00%	85.28%	69.31%	35.44%
48 PR	3.70%	4.54%	14.72%	1.17%	3.85%	2.75%
49 CumPR	8.87%	17.25%	33.15%	18.42%	12.71%	5.17%

50

51 Peak Months Only	Nov	Dec	Jan	Feb	Mar	Apr
52 Remaining Load for Peak Months Only	3,712,185	5,709,500	6,884,032	5,870,407	4,771,592	2,439,637
53 Rank	5	3	1	2	4	6
54 % Max Month	53.92%	82.94%	100.00%	85.28%	69.31%	35.44%
55 PR	3.70%	4.54%	14.72%	1.17%	3.85%	5.91%
56 CumPR	9.60%	17.99%	33.89%	19.16%	13.45%	5.91%

57

58 **DEMAND COST PR ALLOCATORS**

59	Nov	Dec	Jan	Feb	Mar	Apr
60 Pipeline - Base	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%
61 Pipeline - Remaining	8.87%	17.25%	33.15%	18.42%	12.71%	5.17%
62 Storage & Peaking	8.87%	17.25%	33.15%	18.42%	12.71%	5.17%
63 Capacity Release	9.60%	17.99%	33.89%	19.16%	13.45%	5.91%
64 Off-system Peaking	9.29%	17.64%	34.66%	18.93%	13.70%	5.79%
65 Interr. Margins & Off Sys Sales	9.60%	17.99%	33.89%	19.16%	13.45%	5.91%

66

67 **DEMAND COSTS ALLOCATED TO MONTHS**

68	Nov	Dec	Jan	Feb	Mar	Apr
69 Pipeline - Base	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328
70 Pipeline - Remaining	\$ 345,883	\$ 673,169	\$ 1,293,229	\$ 718,765	\$ 495,985	\$ 201,641
71 Total Pipeline	\$ 476,211	\$ 803,497	\$ 1,423,557	\$ 849,094	\$ 626,313	\$ 331,970
72						
73 Storage & On-system Peaking	\$ 795,466	\$ 1,548,164	\$ 2,974,187	\$ 1,653,027	\$ 1,140,674	\$ 463,738
74 Off-system Peaking	\$348,528	\$661,712	\$1,300,321	\$710,247	\$513,808	\$217,139
75 Outage Replacement	\$ 3,933	\$ 7,655	\$ 14,707	\$ 8,174	\$ 5,640	\$ 2,293
76 Less Credits to Demand Cost						
77 Cap Rel Margins & Asset Mgt Credits	\$ 391,517	\$ 733,509	\$ 1,381,430	\$ 781,155	\$ 548,364	\$ 240,795
78 Interruptible Margins	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
79 Conversion Rate and Re-entry Rate Credits	\$ 480	\$ 900	\$ 1,694	\$ 958	\$ 673	\$ 295
80 Total Direct Demand Costs	\$ 1,232,141	\$ 2,286,619	\$ 4,329,647	\$ 2,438,429	\$ 1,737,398	\$ 774,050

81

82 Indirect Demand Costs/(Credits)	
83 Miscellaneous Overhead	
84 Local Production & Storage	
85 Subtotal	

Northern Utilities - NEW HAMPSHIRE DIVISION
Simplified Market Based Allocator (SMBA) Calculations
DEMAND COSTS

41 **NH DIVISION MONTHLY PROPORTIONAL RESPONSIBILITY (PR /ALLOCATORS)**

42 (Based on NH Firm Sales Sendout for Remaining Temperature Sensitive Load)

44 All Months	May	Jun	Jul	Aug	Sep	Oct	Annual	Winter	Summer
45 Remaining Load for All Months	835,747	214,153	0	8,214	162,755	1,303,416	31,911,637	29,387,353	2,524,285
46 Rank	8	9	12	11	10	7			
47 % Max Month	12.14%	3.11%	0.00%	0.12%	2.36%	18.93%			
48 PR	1.13%	0.08%	0.00%	0.01%	0.22%	0.97%	33.15%		
49 CumPR	1.45%	0.32%	0.00%	0.01%	0.24%	2.42%	100.00%	95.57%	4.43%

51 Peak Months Only	Annual	Winter	Summer
52 Remaining Load for Peak Months Only	29,387,353	29,387,353	
53 Rank			
54 % Max Month			
55 PR	33.89%		
56 CumPR	100.00%	100.00%	0.00%

57 **DEMAND COST PR ALLOCATORS**

59	May	Jun	Jul	Aug	Sep	Oct	Annual	Winter	Summer
60 Pipeline - Base	8.33%	8.33%	8.33%	8.33%	8.33%	8.33%	100.00%	50.00%	50.00%
61 Pipeline - Remaining	1.45%	0.32%	0.00%	0.01%	0.24%	2.42%	100.00%	95.57%	4.43%
62 Storage & Peaking	1.45%	0.32%	0.00%	0.01%	0.24%	2.42%	100.00%	95.57%	4.43%
63 Capacity Release	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%
64 Off-system Peaking	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%
65 Interr. Margins & Off Sys Sales	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	0.00%

66 **DEMAND COSTS ALLOCATED TO MONTHS**

68	May	Jun	Jul	Aug	Sep	Oct	Annual	Winter	Summer	Winter	Summer
69 Pipeline - Base	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 1,563,940	\$ 781,970	\$ 781,970	50.00%	50.00%
70 Pipeline - Remaining	\$ 56,454	\$ 12,418	\$ -	\$ 423	\$ 9,182	\$ 94,318	\$ 3,901,466	\$ 3,728,672	\$ 172,794	95.57%	4.43%
71 Total Pipeline	\$ 186,782	\$ 142,747	\$ 130,328	\$ 130,752	\$ 139,510	\$ 224,646	\$ 5,465,407	\$ 4,510,642	\$ 954,764	82.53%	17.47%
72											
73 Storage & On-system Peaking	\$ 129,833	\$ 28,560	\$ -	\$ 973	\$ 21,116	\$ 216,913	\$ 8,972,651	\$ 8,575,256	\$ 397,395	95.57%	4.43%
74 Off-system Peaking	\$0	\$0	\$0	\$0	\$0	\$0	\$ 3,751,755	\$ 3,751,755	\$ -	100.00%	0.00%
75 Outage Replacement	\$ 642	\$ 141	\$ -	\$ 5	\$ 104	\$ 1,073	\$ 44,367	\$ 42,402	\$ 1,965		
76 Less Credits to Demand Cost											
77 Cap Rel Margins & Asset Mgt Credits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$4,076,771	\$ 4,076,771	\$ -	100.00%	0.00%
78 Interruptible Margins	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
79 Conversion Rate and Re-entry Rate Credits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 5,000	\$ -		
80 Total Direct Demand Costs	\$ 317,257	\$ 171,448	\$ 130,328	\$ 131,730	\$ 160,731	\$ 442,631	\$ 14,152,409	\$ 12,798,284	\$ 1,354,125	90.43%	9.57%
81											
82 Indirect Demand Costs/(Credits)											
83 Miscellaneous Overhead							\$ 580,455	\$ 463,606	\$ 116,849	79.87%	20.13%
84 Local Production & Storage							\$ 476,106	\$ 476,106	\$ -	100.00%	0.00%
85 Subtotal							\$ 1,056,561	\$ 939,712	\$ 116,849	88.94%	11.06%

Northern Utilities - NEW HAMPSHIRE DIVISION
Simplified Market Based Allocator (SMBA) Calculations
DEMAND COSTS

41 **NH DIVISION MONTHLY PROPORTIONAL RESPONSIBILITY (PR /ALLOCATORS)**

42 (Based on NH Firm Sales Sendout for Remaining Temperature Sensitive Load)

43

44	All Months	
45	Remaining Load for All Months	Attachment NUI-CAK-3, LN 80
46	Rank	Rank LN 45
47	% Max Month	LN 45 / MAX Month LN 45
48	PR	The difference between LN 47 for the month and LN 47 for next highest rank
49	CumPR	Cumulative Values, LN 48

50

51	Peak Months Only	
52	Remaining Load for Peak Months Only	LN 45
53	Rank	Rank LN 52
54	% Max Month	LN 52 / MAX Month LN 52
55	PR	The difference between LN 54 for the month and LN 54 for next highest rank
56	CumPR	Cumulative Values, LN 55

57

58 **DEMAND COST PR ALLOCATORS**

59		
60	Pipeline - Base	1/12
61	Pipeline - Remaining	LN 49
62	Storage & Peaking	LN 49
63	Capacity Release	LN 56
64	Off-system Peaking	LN 56
65	Interr. Margins & Off Sys Sales	LN 56

66

67 **DEMAND COSTS ALLOCATED TO MONTHS**

68		
69	Pipeline - Base	LN 39 * LN 60
70	Pipeline - Remaining	LN 40 * LN 61
71	Total Pipeline	LN 69 + LN 70
72		
73	Storage & On-system Peaking	LN 62 * (Sum LN 20 : LN 21)
74	Off-system Peaking	Attachment NUI-CAK-1, LN 122,* LN 64
75	Outage Replacement	Attachment NUI-CAK-2A
76	Less Credits to Demand Cost	
77	Cap Rel Margins & Asset Mgt Credits	Attachment NUI-CAK-1, LN 95 * LN 63
78	Interruptible Margins	
79	Conversion Rate and Re-entry Rate Credits	Company Analysis
80	Total Direct Demand Costs	LN 71 + LN 73 + LN 74 - (Sum LN 76 : LN 79)

81

82	Indirect Demand Costs/(Credits)	
83	Miscellaneous Overhead	Company Analysis
84	Local Production & Storage	Company Analysis
85	Subtotal	LN 83 + LN 84

Denotes Confidential Data

\$286,008

June 2020 Outage Costs

Allocated % to New
Hampshire Division

June 2021 Outage Costs

40.88%	\$36,792
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REDACTED



Invoice

To: Northern Utilities
6 Liberty Lane West
Hampton, NH 03842

Invoice Number: NU001
Invoice Date: 26 May 21
Due Date: 1 Jun 21

DESCRIPTION	AMOUNT	TOTAL
Reservation Charge		\$ 90,000.00
Total Due		\$ 90,000.00

Invoice amounts and all payments to be made in United States dollars.

Please wire payments to



Northern Utilities - NEW HAMPSHIRE DIVISION
2021 - 2022 Period

Forecasted Normal Sales By Class- Therms																
Calendar Month Firm Sales Volumes																
Line No.	Normal Winter	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	Summer
1	Res Heat	2,214,836	3,176,763	3,717,973	3,190,785	2,720,227	1,601,139	774,136	505,683	427,329	433,379	480,902	970,020	20,213,169	16,621,722	3,591,447
2	Res General	20,357	29,198	34,173	29,327	25,002	14,716	17,608	11,502	9,720	9,858	10,939	22,064	234,465	152,774	81,691
3	Total Residential	2,235,193	3,205,961	3,752,145	3,220,112	2,745,230	1,615,855	791,744	517,185	437,049	443,237	491,840	992,084	20,447,634	16,774,496	3,673,138
4	G50 Low Annual-Low Winter	118,323	169,711	198,624	170,460	145,322	85,537	146,159	95,474	80,681	81,823	90,796	183,143	1,566,054	887,978	678,076
5	G40 Low Annual-High Winter	1,128,570	1,618,720	1,894,493	1,625,865	1,386,092	815,860	293,304	191,593	161,906	164,199	182,204	367,521	9,830,327	8,469,600	1,360,727
6	G51 Med Annual-Low Winter	196,136	281,320	329,247	282,562	240,891	141,790	219,962	143,684	121,421	123,140	136,643	275,620	2,492,415	1,471,945	1,020,469
7	G41 Med Annual-High Winter	828,952	1,188,975	1,391,535	1,194,223	1,018,107	599,262	310,158	202,602	171,210	173,634	192,674	388,639	7,659,971	6,221,055	1,438,916
8	G52 High Annual-Low Winter	53,899	52,129	58,595	56,625	58,318	53,429	52,740	45,879	48,194	49,987	48,339	53,274	631,408	332,996	298,412
9	G42 High Annual-High Winter	152,111	203,629	255,657	224,755	200,301	144,806	93,544	60,828	53,739	54,403	65,622	109,154	1,618,550	1,181,259	437,291
10	Total C&I	2,477,990	3,514,485	4,128,152	3,554,490	3,049,031	1,840,685	1,115,867	740,061	637,150	647,185	716,278	1,377,351	23,798,725	18,564,833	5,233,892
11	Total Sales	4,713,183	6,720,446	7,880,297	6,774,602	5,794,261	3,456,540	1,907,611	1,257,246	1,074,199	1,090,422	1,208,118	2,369,434	44,246,359	35,339,329	8,907,030
12																
13	Residential Heat & Non Heat	2,235,193	3,205,961	3,752,145	3,220,112	2,745,230	1,615,855	791,744	517,185	437,049	443,237	491,840	992,084	20,447,634	16,774,496	3,673,138
14	SALES HLF CLASSES	368,357	503,160	586,466	509,647	444,531	280,756	418,861	285,038	250,296	254,950	275,778	512,036	4,689,876	2,692,919	1,996,958
15	SALES LLF CLASSES	2,109,633	3,011,324	3,541,686	3,044,843	2,604,500	1,559,929	697,006	455,024	386,854	392,235	440,500	865,314	19,108,849	15,871,915	3,236,934
16	Total Firm Sales	4,713,183	6,720,446	7,880,297	6,774,602	5,794,261	3,456,540	1,907,611	1,257,246	1,074,199	1,090,422	1,208,118	2,369,434	44,246,359	35,339,329	8,907,030
17																
18	ESTIMATED SENDOUT BY CLASS - Therms															
19	Calendar Month Sendout Volumes (Includes Loss & Unaccounted For)															
20	Normal Winter	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	SUMMER
21	Res Heat	2,242,870	3,216,973	3,765,033	3,231,172	2,754,659	1,621,405	783,934	512,083	432,738	438,865	486,989	982,298	20,469,017	16,832,111	3,636,906
22	Res General	20,615	29,568	34,605	29,699	25,319	14,903	17,831	11,648	9,843	9,982	11,077	22,343	237,433	154,708	82,725
23	G50 Low Annual-Low Winter	119,820	171,859	201,138	172,618	147,161	86,620	148,009	96,683	81,702	82,859	91,945	185,461	1,585,876	899,217	686,659
24	G40 Low Annual-High Winter	1,142,855	1,639,209	1,918,473	1,646,444	1,403,637	826,187	297,017	194,018	163,956	166,277	184,510	372,173	9,954,754	8,576,804	1,377,950
25	G51 Med Annual-Low Winter	198,619	284,881	333,414	286,138	243,940	143,584	222,746	145,503	122,958	124,699	138,372	279,109	2,523,962	1,490,576	1,033,386
26	G41 Med Annual-High Winter	839,445	1,204,025	1,409,149	1,209,339	1,030,993	606,847	314,084	205,167	173,377	175,832	195,112	393,558	7,756,927	6,299,798	1,457,129
27	G52 High Annual-Low Winter	54,581	52,789	59,336	57,342	59,056	54,106	53,407	46,460	48,804	50,619	48,951	53,948	639,400	337,210	302,189
28	G42 High Annual-High Winter	154,036	206,207	258,893	227,600	202,837	146,639	94,728	61,598	54,419	55,092	66,453	110,536	1,639,037	1,196,211	442,826
29	Subtotal															
30	Residential	2,263,485	3,246,541	3,799,638	3,260,870	2,779,977	1,636,308	801,765	523,731	442,581	448,847	498,066	1,004,641	20,706,450	16,986,819	3,719,631
31	SALES HLF CLASSES	373,020	509,529	593,889	516,098	450,158	284,310	424,162	288,645	253,464	258,177	279,268	518,517	4,749,238	2,727,004	2,022,234
32	SALES LLF CLASSES	2,136,335	3,049,440	3,586,515	3,083,383	2,637,466	1,579,674	705,829	460,783	391,751	397,200	446,076	876,267	19,350,718	16,072,813	3,277,905
33	Total Firm Sales	4,772,840	6,805,510	7,980,042	6,860,351	5,867,601	3,500,291	1,931,757	1,273,159	1,087,795	1,104,224	1,223,410	2,399,425	44,806,406	35,786,636	9,019,770

Northern Utilities - NEW HAMPSHIRE DIVISION
2021 - 2022 Period

Line No.	Forecasted Normal Sales By Class- Therms	
	Calendar Month Firm Sales Volumes	
	Firm Sales	
1	Res Heat	(Attachment NUI-FXW-2, Page 1) * 10
2	Res General	(Attachment NUI-FXW-2, Page 1) * 10
3	Total Residential	Sum LN 1 : LN 2
4	G50 Low Annual-Low Winter	(Attachment NUI-FXW-2, Page 1) * 10
5	G40 Low Annual-High Winter	(Attachment NUI-FXW-2, Page 1) * 10
6	G51 Med Annual-Low Winter	(Attachment NUI-FXW-2, Page 1) * 10
7	G41 Med Annual-High Winter	(Attachment NUI-FXW-2, Page 1) * 10
8	G52 High Annual-Low Winter	(Attachment NUI-FXW-2, Page 1) * 10
9	G42 High Annual-High Winter	(Attachment NUI-FXW-2, Page 1) * 10
10	Total C&I	Sum LN 4 : LN 9
11	Total Sales	LN 3 + LN 10
12		
13	Residential Heat & Non Heat	LN 3
14	SALES HLF CLASSES	LN 4 + LN 6 + LN 8
15	SALES LLF CLASSES	LN 5 + LN 7 + LN 9
16	Total Firm Sales	Sum LN 13 : LN 15
17		
18	ESTIMATED SENDOUT BY CLASS - Therms	
19	Calendar Month Sendout Volumes (Includes Loss & Unaccounted For)	
20	Normal Winter	Unaccounted For)
21	Res Heat	LN 1 x Adj factor (Attachment NUI-FXW-2, Page 4)
22	Res General	LN 2 x Adj factor (Attachment NUI-FXW-2, Page 4)
23	G50 Low Annual-Low Winter	LN 4 x Adj factor (Attachment NUI-FXW-2, Page 4)
24	G40 Low Annual-High Winter	LN 5 x Adj factor (Attachment NUI-FXW-2, Page 4)
25	G51 Med Annual-Low Winter	LN 6 x Adj factor (Attachment NUI-FXW-2, Page 4)
26	G41 Med Annual-High Winter	LN 7 x Adj factor (Attachment NUI-FXW-2, Page 4)
27	G52 High Annual-Low Winter	LN 8 x Adj factor (Attachment NUI-FXW-2, Page 4)
28	G42 High Annual-High Winter	LN 9 x Adj factor (Attachment NUI-FXW-2, Page 4)
29	Subtotal	
30	Residential	LN 21 + LN 22
31	SALES HLF CLASSES	LN 23 + LN 25 + LN 27
32	SALES LLF CLASSES	LN 24 + LN 26 + LN 28
33	Total Firm Sales	Sum LN 30 : LN 32

Northern Utilities - NEW HAMPSHIRE DIVISION

Sendout by Class - Allocation between Base & Remaining Sendout

34																	
35	DAILY BASE GAS ENTITLEMENT - Therms/day																
36	Res Heat		14,058														
37	Res General		320														
38	G50 Low Annual-Low Winter		2,654														
39	G40 Low Annual-High Winter		5,326														
40	G51 Med Annual-Low Winter		3,994														
41	G41 Med Annual-High Winter		5,632														
42	G52 High Annual-Low Winter		1,604														
43	G42 High Annual-High Winter		1,766														
44	Subtotal																
45	Residential		14,378														
46	SALES HLF CLASSES		8,252														
47	SALES LLF CLASSES		12,725														
48	Total Firm Sales		35,355														
49	BASE SENDOUT BY CLASS - Therms																
50	Days per Month	30	31	31	28	31	30	31	30	31	31	30	31				
51		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	SUMMER	
52	Res Heat	421,743	435,801	435,801	393,627	435,801	421,743	435,801	421,743	432,738	435,801	421,743	435,801	5,128,145	2,544,517	2,583,628	
53	Res General	9,593	9,913	9,913	8,953	9,913	9,593	9,913	9,593	9,843	9,913	9,593	9,913	116,644	57,877	58,767	
54	G50 Low Annual-Low Winter	79,626	82,281	82,281	74,318	82,281	79,626	82,281	79,626	81,702	82,281	79,626	82,281	968,209	480,412	487,797	
55	G40 Low Annual-High Winter	159,790	165,116	165,116	149,137	165,116	159,790	165,116	159,790	163,956	165,116	159,790	165,116	1,942,950	964,066	978,884	
56	G51 Med Annual-Low Winter	119,834	123,828	123,828	111,845	123,828	119,834	123,828	119,834	122,958	123,828	119,834	123,828	1,457,105	722,996	734,109	
57	G41 Med Annual-High Winter	168,972	174,604	174,604	157,707	174,604	168,972	174,604	168,972	173,377	174,604	168,972	174,604	2,054,595	1,019,463	1,035,133	
58	G52 High Annual-Low Winter	48,108	49,712	49,712	44,901	49,712	48,108	49,712	46,460	48,804	49,712	48,108	49,712	582,759	290,252	292,507	
59	G42 High Annual-High Winter	52,989	54,755	54,755	49,456	54,755	52,989	54,755	52,989	54,419	54,755	52,989	54,755	644,362	319,700	324,662	
60	Subtotal																
61	Residential	431,336	445,714	445,714	402,580	445,714	431,336	445,714	431,336	442,581	445,714	431,336	445,714	5,244,789	2,602,394	2,642,395	
62	SALES HLF CLASSES	247,568	255,820	255,820	231,063	255,820	247,568	255,820	245,920	253,464	255,820	247,568	255,820	3,008,073	1,493,660	1,514,413	
63	SALES LLF CLASSES	381,751	394,476	394,476	356,301	394,476	381,751	394,476	381,751	391,751	394,476	381,751	394,476	4,641,907	2,303,228	2,338,679	
64	Total Firm Sales	1,060,655	1,096,010	1,096,010	989,944	1,096,010	1,060,655	1,096,010	1,059,006	1,087,795	1,096,010	1,060,655	1,096,010	12,894,769	6,399,283	6,495,486	
65																	
66	REMAINING SENDOUT BY CLASS - Therms																
67		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	SUMMER	
68	Res Heat	1,821,127	2,781,171	3,329,231	2,837,545	2,318,857	1,199,662	348,133	90,340	-	3,064	65,245	546,496	15,340,872	14,287,594	1,053,279	
69	Res General	11,022	19,655	24,693	20,745	15,406	5,310	7,919	2,055	-	70	1,484	12,431	120,789	96,831	23,958	
70	G50 Low Annual-Low Winter	40,194	89,579	118,858	98,300	64,881	6,994	65,729	17,056	-	578	12,319	103,180	617,667	418,805	198,862	
71	G40 Low Annual-High Winter	983,065	1,474,093	1,753,357	1,497,307	1,238,520	666,397	131,900	34,228	-	1,161	24,720	207,056	8,011,804	7,612,738	399,066	
72	G51 Med Annual-Low Winter	78,785	161,053	209,586	174,293	120,112	23,751	98,918	25,669	-	870	18,539	155,281	1,066,858	767,580	299,277	
73	G41 Med Annual-High Winter	670,473	1,029,421	1,234,544	1,051,632	856,389	437,876	139,480	36,195	-	1,227	26,141	218,954	5,702,332	5,280,335	421,997	
74	G52 High Annual-Low Winter	6,473	3,077	9,625	12,441	9,344	5,998	3,695	-	-	908	843	4,236	56,640	46,958	9,682	
75	G42 High Annual-High Winter	101,047	151,451	204,138	178,143	148,081	93,650	39,973	8,610	-	336	13,464	55,781	994,676	876,512	118,164	
76	Subtotal																
77	Residential	1,832,149	2,800,827	3,353,924	2,858,290	2,334,263	1,204,972	356,051	92,395	-	3,133	66,730	558,927	15,461,661	14,384,425	1,077,236	
78	SALES HLF CLASSES	125,452	253,709	338,069	285,035	194,337	36,742	168,342	42,726	-	2,356	31,700	262,697	1,741,165	1,233,344	507,822	
79	SALES LLF CLASSES	1,754,585	2,654,964	3,192,039	2,727,082	2,242,991	1,197,923	311,353	79,032	-	2,725	64,325	481,791	14,708,811	13,769,585	939,227	
80	Total Firm Sales	3,712,185	5,709,500	6,884,032	5,870,407	4,771,592	2,439,637	835,747	214,153	-	8,214	162,755	1,303,416	31,911,637	29,387,353	2,524,285	

Northern Utilities - NEW HAMPSHIRE DIVISION

Sendout by Class - Allocation between Base & Remaining Sendout

34		
35	DAILY BASE GAS ENTITLEMENT - Therms/day	
36	Res Heat	Avg (LN 21 Jul : LN 21 Aug) / 31 days
37	Res General	Avg (LN 22 Jul : LN 22 Aug) / 31 days
38	G50 Low Annual-Low Winter	Avg (LN 23 Jul : LN 23 Aug) / 31 days
39	G40 Low Annual-High Winter	Avg (LN 24 Jul : LN 24 Aug) / 31 days
40	G51 Med Annual-Low Winter	Avg (LN 25 Jul : LN 25 Aug) / 31 days
41	G41 Med Annual-High Winter	Avg (LN 26 Jul : LN 26 Aug) / 31 days
42	G52 High Annual-Low Winter	Avg (LN 27 Jul : LN 27 Aug) / 31 days
43	G42 High Annual-High Winter	Avg (LN 28 Jul : LN 28 Aug) / 31 days
44	Subtotal	
45	Residential	LN 36 + LN 37
46	SALES HLF CLASSES	LN 38 + LN 40 + LN 42
47	SALES LLF CLASSES	LN 39 + LN 41 + LN 43
48	Total Firm Sales	Sum LN 45 : LN 47
49	BASE SENDOUT BY CLASS - Therms	
50	Days per Month	
51		
52	Res Heat	MIN(LN 36 * LN 50, LN 21)
53	Res General	MIN(LN 37 * LN 50, LN 22)
54	G50 Low Annual-Low Winter	MIN(LN 38 * LN 50, LN 23)
55	G40 Low Annual-High Winter	MIN(LN 39 * LN 50, LN 24)
56	G51 Med Annual-Low Winter	MIN(LN 40 * LN 50, LN 25)
57	G41 Med Annual-High Winter	MIN(LN 41 * LN 50, LN 26)
58	G52 High Annual-Low Winter	MIN(LN 42 * LN 50, LN 27)
59	G42 High Annual-High Winter	MIN(LN 43 * LN 50, LN 28)
60	Subtotal	
61	Residential	LN 52 + LN 53
62	SALES HLF CLASSES	LN 54 + LN 56 + LN 58
63	SALES LLF CLASSES	LN 55 + LN 57 + LN 59
64	Total Firm Sales	Sum LN 61 : LN 63
65		
66	REMAINING SENDOUT BY CLASS - Therms	
67		
68	Res Heat	LN 21 - LN 52
69	Res General	LN 22 - LN 53
70	G50 Low Annual-Low Winter	LN 23 - LN 54
71	G40 Low Annual-High Winter	LN 24 - LN 55
72	G51 Med Annual-Low Winter	LN 25 - LN 56
73	G41 Med Annual-High Winter	LN 26 - LN 57
74	G52 High Annual-Low Winter	LN 27 - LN 58
75	G42 High Annual-High Winter	LN 28 - LN 59
76	Subtotal	
77	Residential	LN 68 + LN 69
78	SALES HLF CLASSES	LN 70 + LN 72 + LN 74
79	SALES LLF CLASSES	LN 71 + LN 73 + LN 75
80	Total Firm Sales	Sum LN 77 : LN 79

Northern Utilities - NEW HAMPSHIRE DIVISION
Allocation of Demand Costs to Customer Classes

Base Capacity Costs

	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	SUMMER
BASE SENDOUT BY CLASS															
Total Therms															
Res Heat	421,743	435,801	435,801	393,627	435,801	421,743	435,801	421,743	432,738	435,801	421,743	435,801	5,128,145	2,544,517	2,583,628
Res General	9,593	9,913	9,913	8,953	9,913	9,593	9,913	9,593	9,843	9,913	9,593	9,913	116,644	57,877	58,767
G50 Low Annual-Low Winter	79,626	82,281	82,281	74,318	82,281	79,626	82,281	79,626	81,702	82,281	79,626	82,281	968,209	480,412	487,797
G40 Low Annual-High Winter	159,790	165,116	165,116	149,137	165,116	159,790	165,116	159,790	163,956	165,116	159,790	165,116	1,942,950	964,066	978,884
G51 Med Annual-Low Winter	119,834	123,828	123,828	111,845	123,828	119,834	123,828	119,834	122,958	123,828	119,834	123,828	1,457,105	722,996	734,109
G41 Med Annual-High Winter	168,972	174,604	174,604	157,707	174,604	168,972	174,604	168,972	173,377	174,604	168,972	174,604	2,054,595	1,019,463	1,035,133
G52 High Annual-Low Winter	48,108	49,712	49,712	44,901	49,712	48,108	49,712	46,460	48,804	49,712	48,108	49,712	582,759	290,252	292,507
G42 High Annual-High Winter	52,989	54,755	54,755	49,456	54,755	52,989	54,755	52,989	54,419	54,755	52,989	54,755	644,362	319,700	324,662
Total Firm Sales	1,060,655	1,096,010	1,096,010	989,944	1,096,010	1,060,655	1,096,010	1,059,006	1,087,795	1,096,010	1,060,655	1,096,010	12,894,769	6,399,283	6,495,486
% of Total															
Res Heat	39.76%	39.76%	39.76%	39.76%	39.76%	39.76%	39.76%	39.82%	39.78%	39.76%	39.76%	39.76%			
Res General	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.91%	0.90%	0.90%	0.90%	0.90%			
G50 Low Annual-Low Winter	7.51%	7.51%	7.51%	7.51%	7.51%	7.51%	7.51%	7.52%	7.51%	7.51%	7.51%	7.51%			
G40 Low Annual-High Winter	15.07%	15.07%	15.07%	15.07%	15.07%	15.07%	15.07%	15.09%	15.07%	15.07%	15.07%	15.07%			
G51 Med Annual-Low Winter	11.30%	11.30%	11.30%	11.30%	11.30%	11.30%	11.30%	11.32%	11.30%	11.30%	11.30%	11.30%			
G41 Med Annual-High Winter	15.93%	15.93%	15.93%	15.93%	15.93%	15.93%	15.93%	15.96%	15.94%	15.93%	15.93%	15.93%			
G52 High Annual-Low Winter	4.54%	4.54%	4.54%	4.54%	4.54%	4.54%	4.54%	4.39%	4.49%	4.54%	4.54%	4.54%			
G42 High Annual-High Winter	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
Total Firm Sales	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%			
PIPELINE BASE DEMAND COSTS															
TOTAL PIPELINE BASE DEMAND COST	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 130,328	\$ 1,563,940	\$ 781,970	\$ 781,970
Res Heat	\$ 51,822	\$ 51,822	\$ 51,822	\$ 51,822	\$ 51,822	\$ 51,822	\$ 51,822	\$ 51,903	\$ 51,846	\$ 51,822	\$ 51,822	\$ 51,822	\$ 621,967	\$ 310,931	\$ 311,036
Res General	\$ 1,179	\$ 1,179	\$ 1,179	\$ 1,179	\$ 1,179	\$ 1,179	\$ 1,179	\$ 1,181	\$ 1,179	\$ 1,179	\$ 1,179	\$ 1,179	\$ 14,147	\$ 7,072	\$ 7,075
G50 Low Annual-Low Winter	\$ 9,784	\$ 9,784	\$ 9,784	\$ 9,784	\$ 9,784	\$ 9,784	\$ 9,784	\$ 9,799	\$ 9,789	\$ 9,784	\$ 9,784	\$ 9,784	\$ 117,429	\$ 58,705	\$ 58,725
G40 Low Annual-High Winter	\$ 19,634	\$ 19,634	\$ 19,634	\$ 19,634	\$ 19,634	\$ 19,634	\$ 19,634	\$ 19,665	\$ 19,643	\$ 19,634	\$ 19,634	\$ 19,634	\$ 235,651	\$ 117,805	\$ 117,845
G51 Med Annual-Low Winter	\$ 14,725	\$ 14,725	\$ 14,725	\$ 14,725	\$ 14,725	\$ 14,725	\$ 14,725	\$ 14,748	\$ 14,731	\$ 14,725	\$ 14,725	\$ 14,725	\$ 176,725	\$ 88,348	\$ 88,377
G41 Med Annual-High Winter	\$ 20,762	\$ 20,762	\$ 20,762	\$ 20,762	\$ 20,762	\$ 20,762	\$ 20,762	\$ 20,795	\$ 20,772	\$ 20,762	\$ 20,762	\$ 20,762	\$ 249,192	\$ 124,575	\$ 124,617
G52 High Annual-Low Winter	\$ 5,911	\$ 5,911	\$ 5,911	\$ 5,911	\$ 5,911	\$ 5,911	\$ 5,911	\$ 5,911	\$ 5,847	\$ 5,911	\$ 5,911	\$ 5,911	\$ 70,678	\$ 35,468	\$ 35,210
G42 High Annual-High Winter	\$ 6,511	\$ 6,511	\$ 6,511	\$ 6,511	\$ 6,511	\$ 6,511	\$ 6,511	\$ 6,521	\$ 6,520	\$ 6,511	\$ 6,511	\$ 6,511	\$ 78,151	\$ 39,066	\$ 39,085
Residential	\$ 53,001	\$ 53,001	\$ 53,001	\$ 53,001	\$ 53,001	\$ 53,001	\$ 53,001	\$ 53,083	\$ 53,025	\$ 53,001	\$ 53,001	\$ 53,001	\$ 636,114	\$ 318,004	\$ 318,111
SALES HLF CLASSES	\$ 30,420	\$ 30,420	\$ 30,420	\$ 30,420	\$ 30,420	\$ 30,420	\$ 30,420	\$ 30,265	\$ 30,367	\$ 30,420	\$ 30,420	\$ 30,420	\$ 364,832	\$ 182,520	\$ 182,312
SALES LLF CLASSES	\$ 46,908	\$ 46,908	\$ 46,908	\$ 46,908	\$ 46,908	\$ 46,908	\$ 46,908	\$ 46,981	\$ 46,936	\$ 46,908	\$ 46,908	\$ 46,908	\$ 562,994	\$ 281,446	\$ 281,547

**Northern Utilities - NEW HAMPSHIRE
Allocation of Demand Costs to Customers**

Base Capacity Costs

1	BASE SENDOUT BY CLASS	
2	Total Therms	
3	Res Heat	Attachment NUI-CAK-3, LN 52
4	Res General	Attachment NUI-CAK-3, LN 53
5	G50 Low Annual-Low Winter	Attachment NUI-CAK-3, LN 54
6	G40 Low Annual-High Winter	Attachment NUI-CAK-3, LN 55
7	G51 Med Annual-Low Winter	Attachment NUI-CAK-3, LN 56
8	G41 Med Annual-High Winter	Attachment NUI-CAK-3, LN 57
9	G52 High Annual-Low Winter	Attachment NUI-CAK-3, LN 58
10	G42 High Annual-High Winter	Attachment NUI-CAK-3, LN 59
11	Total Firm Sales	Sum LN 3 : LN 10
12		
13	% of Total	
14	Res Heat	LN 3 / LN 11
15	Res General	LN 4 / LN 11
16	G50 Low Annual-Low Winter	LN 5 / LN 11
17	G40 Low Annual-High Winter	LN 6 / LN 11
18	G51 Med Annual-Low Winter	LN 7 / LN 11
19	G41 Med Annual-High Winter	LN 8 / LN 11
20	G52 High Annual-Low Winter	LN 9 / LN 11
21	G42 High Annual-High Winter	LN 10 / LN 11
22	Total Firm Sales	LN 11 / LN 11
23		
24	PIPELINE BASE DEMAND COSTS	
25	TOTAL PIPELINE BASE DEMAND COST	Attachment NUI-CAK-2, LN 69
26	Res Heat	LN 25 * LN 14
27	Res General	LN 25 * LN 15
28	G50 Low Annual-Low Winter	LN 25 * LN 16
29	G40 Low Annual-High Winter	LN 25 * LN 17
30	G51 Med Annual-Low Winter	LN 25 * LN 18
31	G41 Med Annual-High Winter	LN 25 * LN 19
32	G52 High Annual-Low Winter	LN 25 * LN 20
33	G42 High Annual-High Winter	LN 25 * LN 21
34		
35	Residential	LN 26 + LN 27
36	SALES HLF CLASSES	LN 28 + LN 30 + LN 32
37	SALES LLF CLASSES	LN 29 + LN 31 + LN 33
38		

Remaining Capacity Costs

	Column A	Column B	Column C	Column D
	Design Day Demand (MMBtu)	Avg Daily Base Use Load (MMBtu)	Remaining Design Day Demand (MMBtu)	% of Total Remaining Design Day Demand
Res Heat	24,141	1,406	22,735	48.80%
Res General	222	32	190	0.41%
G50 Low Annual-Low Winter	905	265	640	1.37%
G40 Low Annual-High Winter	11,858	533	11,325	24.31%
G51 Med Annual-Low Winter	1,441	399	1,041	2.23%
G41 Med Annual-High Winter	9,240	563	8,677	18.62%
G52 High Annual-Low Winter	365	160	205	0.44%
G42 High Annual-High Winter	1,952	177	1,776	3.81%
TOTAL	50,124	3,536	46,588	100.00%

REMAINING PIPELINE DEMAND

	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	SUMMER
NH DIVISION TOTAL - REMAINING PIPELINE	\$ 345,883	\$ 673,169	\$ 1,293,229	\$ 718,765	\$ 495,985	\$ 201,641	\$ 56,454	\$ 12,418	\$ -	\$ 423	\$ 9,182	\$ 94,318	\$ 3,901,466	\$ 3,728,672	\$ 172,794
Res Heat	\$ 168,790	\$ 328,505	\$ 631,093	\$ 350,756	\$ 242,040	\$ 98,401	\$ 27,549	\$ 6,060	\$ -	\$ 207	\$ 4,481	\$ 46,027	\$ 1,903,907	\$ 1,819,584	\$ 84,323
Res General	\$ 1,411	\$ 2,745	\$ 5,274	\$ 2,931	\$ 2,023	\$ 822	\$ 230	\$ 51	\$ -	\$ 2	\$ 37	\$ 385	\$ 15,911	\$ 15,207	\$ 705
G50 Low Annual-Low Winter	\$ 4,750	\$ 9,244	\$ 17,759	\$ 9,870	\$ 6,811	\$ 2,769	\$ 775	\$ 171	\$ -	\$ 6	\$ 126	\$ 1,295	\$ 53,576	\$ 51,203	\$ 2,373
G40 Low Annual-High Winter	\$ 84,082	\$ 163,643	\$ 314,376	\$ 174,727	\$ 120,571	\$ 49,018	\$ 13,724	\$ 3,019	\$ -	\$ 103	\$ 2,232	\$ 22,928	\$ 948,422	\$ 906,417	\$ 42,005
G51 Med Annual-Low Winter	\$ 7,730	\$ 15,044	\$ 28,902	\$ 16,063	\$ 11,084	\$ 4,506	\$ 1,262	\$ 278	\$ -	\$ 9	\$ 205	\$ 2,108	\$ 87,191	\$ 83,330	\$ 3,862
G41 Med Annual-High Winter	\$ 64,418	\$ 125,372	\$ 240,853	\$ 133,864	\$ 92,373	\$ 37,554	\$ 10,514	\$ 2,313	\$ -	\$ 79	\$ 1,710	\$ 17,566	\$ 726,617	\$ 694,435	\$ 32,182
G52 High Annual-Low Winter	\$ 1,519	\$ 2,956	\$ 5,679	\$ 3,156	\$ 2,178	\$ 886	\$ 248	\$ 55	\$ -	\$ 2	\$ 40	\$ 414	\$ 17,133	\$ 16,375	\$ 759
G42 High Annual-High Winter	\$ 13,184	\$ 25,659	\$ 49,293	\$ 27,397	\$ 18,905	\$ 7,686	\$ 2,152	\$ 473	\$ -	\$ 16	\$ 350	\$ 3,595	\$ 148,709	\$ 142,123	\$ 6,586
TOTAL	\$ 345,883	\$ 673,169	\$ 1,293,229	\$ 718,765	\$ 495,985	\$ 201,641	\$ 56,454	\$ 12,418	\$ -	\$ 423	\$ 9,182	\$ 94,318	\$ 3,901,466	\$ 3,728,672	\$ 172,794
Residential	\$ 170,201	\$ 331,250	\$ 636,367	\$ 353,687	\$ 244,062	\$ 99,223	\$ 27,779	\$ 6,111	\$ -	\$ 208	\$ 4,518	\$ 46,411	\$ 1,919,818	\$ 1,834,790	\$ 85,028
SALES HLF CLASSES	\$ 13,999	\$ 27,245	\$ 52,340	\$ 29,090	\$ 20,074	\$ 8,161	\$ 2,285	\$ 503	\$ -	\$ 17	\$ 372	\$ 3,817	\$ 157,900	\$ 150,907	\$ 6,993
SALES LLF CLASSES	\$ 161,683	\$ 314,674	\$ 604,522	\$ 335,988	\$ 231,849	\$ 94,258	\$ 26,389	\$ 5,805	\$ -	\$ 198	\$ 4,292	\$ 44,089	\$ 1,823,748	\$ 1,742,975	\$ 80,773

STORAGE AND ON-SYSTEM PEAKING DEMAND

	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	SUMMER
NH DIVISION TOTAL - PEAKING & STORAGE	\$ 795,466	\$ 1,548,164	\$ 2,974,187	\$ 1,653,027	\$ 1,140,674	\$ 463,738	\$ 129,833	\$ 28,560	\$ -	\$ 973	\$ 21,116	\$ 216,913	\$ 8,972,651	\$ 8,575,256	\$ 397,395
Res Heat	\$ 388,186	\$ 755,501	\$ 1,451,397	\$ 806,674	\$ 556,646	\$ 226,303	\$ 63,358	\$ 13,937	\$ -	\$ 475	\$ 10,305	\$ 105,853	\$ 4,378,634	\$ 4,184,706	\$ 193,928
Res General	\$ 3,244	\$ 6,314	\$ 12,130	\$ 6,741	\$ 4,652	\$ 1,891	\$ 529	\$ 116	\$ -	\$ 4	\$ 86	\$ 885	\$ 36,593	\$ 34,972	\$ 1,621
G50 Low Annual-Low Winter	\$ 10,923	\$ 21,260	\$ 40,842	\$ 22,700	\$ 15,664	\$ 6,368	\$ 1,783	\$ 392	\$ -	\$ 13	\$ 290	\$ 2,979	\$ 123,214	\$ 117,757	\$ 5,457
G40 Low Annual-High Winter	\$ 193,373	\$ 376,349	\$ 723,006	\$ 401,840	\$ 277,291	\$ 112,732	\$ 31,562	\$ 6,943	\$ -	\$ 237	\$ 5,133	\$ 52,730	\$ 2,181,195	\$ 2,084,591	\$ 96,604
G51 Med Annual-Low Winter	\$ 17,777	\$ 34,599	\$ 66,468	\$ 36,942	\$ 25,492	\$ 10,364	\$ 2,902	\$ 638	\$ -	\$ 22	\$ 472	\$ 4,848	\$ 200,524	\$ 191,643	\$ 8,881
G41 Med Annual-High Winter	\$ 148,149	\$ 288,333	\$ 553,918	\$ 307,863	\$ 212,441	\$ 86,368	\$ 24,180	\$ 5,319	\$ -	\$ 181	\$ 3,933	\$ 40,398	\$ 1,671,084	\$ 1,597,073	\$ 74,012
G52 High Annual-Low Winter	\$ 3,493	\$ 6,799	\$ 13,061	\$ 7,259	\$ 5,009	\$ 2,037	\$ 570	\$ 125	\$ -	\$ 4	\$ 93	\$ 953	\$ 39,404	\$ 37,658	\$ 1,745
G42 High Annual-High Winter	\$ 30,320	\$ 59,010	\$ 113,365	\$ 63,007	\$ 43,478	\$ 17,676	\$ 4,949	\$ 1,089	\$ -	\$ 37	\$ 805	\$ 8,268	\$ 342,003	\$ 326,856	\$ 15,147
TOTAL	\$ 795,466	\$ 1,548,164	\$ 2,974,187	\$ 1,653,027	\$ 1,140,674	\$ 463,738	\$ 129,833	\$ 28,560	\$ -	\$ 973	\$ 21,116	\$ 216,913	\$ 8,972,651	\$ 8,575,256	\$ 397,395
Residential	\$ 391,430	\$ 761,814	\$ 1,463,526	\$ 813,415	\$ 561,298	\$ 228,194	\$ 63,888	\$ 14,054	\$ -	\$ 479	\$ 10,391	\$ 106,738	\$ 4,415,227	\$ 4,219,678	\$ 195,549
SALES HLF CLASSES	\$ 32,194	\$ 62,657	\$ 120,372	\$ 66,901	\$ 46,165	\$ 18,768	\$ 5,255	\$ 1,156	\$ -	\$ 39	\$ 855	\$ 8,779	\$ 363,142	\$ 347,058	\$ 16,083
SALES LLF CLASSES	\$ 371,842	\$ 723,692	\$ 1,390,289	\$ 772,711	\$ 533,210	\$ 216,775	\$ 60,691	\$ 13,350	\$ -	\$ 455	\$ 9,871	\$ 101,396	\$ 4,194,282	\$ 4,008,519	\$ 185,763

Off-SYSTEM PEAKING DEMAND & OUTAGE REPLACEMENT

	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	SUMMER
NH DIVISION - OFF-SYSTEM PEAKING	\$ 352,462	\$ 669,367	\$ 1,315,028	\$ 718,421	\$ 519,448	\$ 219,432	\$ 642	\$ 141	\$ -	\$ 5	\$ 104	\$ 1,073	\$ 3,796,122	\$ 3,794,157	\$ 1,965
Res Heat	\$ 172,000	\$ 326,650	\$ 641,731	\$ 350,588	\$ 253,489	\$ 107,082	\$ 313	\$ 69	\$ -	\$ 2	\$ 51	\$ 523	\$ 1,852,499	\$ 1,851,540	\$ 959
Res General	\$ 1,437	\$ 2,730	\$ 5,363	\$ 2,930	\$ 2,118	\$ 895	\$ 3	\$ 1	\$ -	\$ 0	\$ 0	\$ 4	\$ 15,482	\$ 15,474	\$ 8
G50 Low Annual-Low Winter	\$ 4,840	\$ 9,192	\$ 18,058	\$ 9,865	\$ 7,133	\$ 3,013	\$ 9	\$ 2	\$ -	\$ 0	\$ 1	\$ 15	\$ 52,129	\$ 52,102	\$ 27
G40 Low Annual-High Winter	\$ 85,681	\$ 162,719	\$ 319,675	\$ 174,644	\$ 126,274	\$ 53,343	\$ 156	\$ 34	\$ -	\$ 1	\$ 25	\$ 261	\$ 922,813	\$ 922,336	\$ 478
G51 Med Annual-Low Winter	\$ 7,877	\$ 14,959	\$ 29,389	\$ 16,056	\$ 11,609	\$ 4,904	\$ 14	\$ 3	\$ -	\$ 0	\$ 2	\$ 24	\$ 84,837	\$ 84,793	\$ 44
G41 Med Annual-High Winter	\$ 65,643	\$ 124,664	\$ 244,913	\$ 133,800	\$ 96,743	\$ 40,867	\$ 120	\$ 26	\$ -	\$ 1	\$ 19	\$ 200	\$ 706,997	\$ 706,631	\$ 366
G52 High Annual-Low Winter	\$ 1,548	\$ 2,940	\$ 5,775	\$ 3,155	\$ 2,281	\$ 964	\$ 3	\$ 1	\$ -	\$ 0	\$ 0	\$ 5	\$ 16,671	\$ 16,662	\$ 9
G42 High Annual-High Winter	\$ 13,434	\$ 25,514	\$ 50,124	\$ 27,383	\$ 19,799	\$ 8,364	\$ 24	\$ 5	\$ -	\$ 0	\$ 4	\$ 41	\$ 144,694	\$ 144,619	\$ 75
TOTAL	\$ 352,462	\$ 669,367	\$ 1,315,028	\$ 718,421	\$ 519,448	\$ 219,432	\$ 642	\$ 141	\$ -	\$ 5	\$ 104	\$ 1,073	\$ 3,796,122	\$ 3,794,157	\$ 1,965
Residential	\$ 173,438	\$ 329,379	\$ 647,094	\$ 353,518	\$ 255,608	\$ 107,977	\$ 316	\$ 69	\$ -	\$ 2	\$ 51	\$ 528	\$ 1,867,981	\$ 1,867,014	\$ 967
SALES HLF CLASSES	\$ 15,702	\$ 29,821	\$ 58,585	\$ 32,006	\$ 23,142	\$ 9,776	\$ 29	\$ 6	\$ -	\$ 0	\$ 5	\$ 48	\$ 169,119	\$ 169,031	\$ 88
SALES LLF CLASSES	\$ 336,759	\$ 639,546	\$ 1,256,443	\$ 686,415	\$ 496,306	\$ 209,656	\$ 613	\$ 135	\$ -	\$ 5	\$ 100	\$ 1,025	\$ 3,627,003	\$ 3,625,126	\$ 1,877

Remaining Capacity Costs

39		
40	Res Heat	Company Analysis
41	Res General	Company Analysis
42	G50 Low Annual-Low Winter	Company Analysis
43	G40 Low Annual-High Winter	Company Analysis
44	G51 Med Annual-Low Winter	Company Analysis
45	G41 Med Annual-High Winter	Company Analysis
46	G52 High Annual-Low Winter	Company Analysis
47	G42 High Annual-High Winter	Company Analysis
48	TOTAL	Sum LN 40 : LN 47
49		

REMAINING PIPELINE DEMAND

51		
52	NH DIVISION TOTAL - REMAINING PIPELINE	Attachment NUI-CAK-2, LN 70
53		
54	Res Heat	LN 40 Col D * LN 52
55	Res General	LN 41 Col D * LN 52
56	G50 Low Annual-Low Winter	LN 42 Col D * LN 52
57	G40 Low Annual-High Winter	LN 43 Col D * LN 52
58	G51 Med Annual-Low Winter	LN 44 Col D * LN 52
59	G41 Med Annual-High Winter	LN 45 Col D * LN 52
60	G52 High Annual-Low Winter	LN 46 Col D * LN 52
61	G42 High Annual-High Winter	LN 47 Col D * LN 52
62	TOTAL	Sum LN 54 : LN 61
63		
64	Residential	LN 54 + LN 55
65	SALES HLF CLASSES	LN 56 + LN 58 + LN 60
66	SALES LLF CLASSES	LN 57 + LN 59 + LN 61
67		

STORAGE AND ON-SYSTEM PEAKING DEMAND

69		
70	NH DIVISION TOTAL - PEAKING & STORAGE	Attachment NUI-CAK-2, LN 73
71		
72	Res Heat	LN 40 Col D * LN 70
73	Res General	LN 41 Col D * LN 70
74	G50 Low Annual-Low Winter	LN 42 Col D * LN 70
75	G40 Low Annual-High Winter	LN 43 Col D * LN 70
76	G51 Med Annual-Low Winter	LN 44 Col D * LN 70
77	G41 Med Annual-High Winter	LN 45 Col D * LN 70
78	G52 High Annual-Low Winter	LN 46 Col D * LN 70
79	G42 High Annual-High Winter	LN 47 Col D * LN 70
80	TOTAL	Sum LN 72 : LN 79
81		
82	Residential	LN 72 + LN 73
83	SALES HLF CLASSES	LN 74 + LN 76 + LN 78
84	SALES LLF CLASSES	LN 75 + LN 77 + LN 79
85		

Off-SYSTEM PEAKING DEMAND & OUTAGE

87		
88	NH DIVISION - OFF-SYSTEM PEAKING	Attachment NUI-CAK-2, LN 74
89		
90	Res Heat	LN 40 Col D * LN 88
91	Res General	LN 41 Col D * LN 88
92	G50 Low Annual-Low Winter	LN 42 Col D * LN 88
93	G40 Low Annual-High Winter	LN 43 Col D * LN 88
94	G51 Med Annual-Low Winter	LN 44 Col D * LN 88
95	G41 Med Annual-High Winter	LN 45 Col D * LN 88
96	G52 High Annual-Low Winter	LN 46 Col D * LN 88
97	G42 High Annual-High Winter	LN 47 Col D * LN 88
98	TOTAL	Sum LN 90 : LN 97
99		
100	Residential	LN 90 + LN 91
101	SALES HLF CLASSES	LN 92 + LN 94 + LN 96
102	SALES LLF CLASSES	LN 93 + LN 95 + LN 97
103		
104		

105 **CAPACITY RELEASE MARGINS & ASSET MANAGEMENT CREDIT BY CLASS**

106		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	SUMMER
107	NH DIVISION - MONTHLY CAP. RELEASE	\$ (391,517)	\$ (733,509)	\$ (1,381,430)	\$ (781,155)	\$ (548,364)	\$ (240,795)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (4,076,771)	\$ (4,076,771)	\$ -
108																
109	Res Heat	\$ (191,060)	\$ (357,951)	\$ (674,135)	\$ (381,202)	\$ (267,601)	\$ (117,507)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (1,989,455)	\$ (1,989,455)	\$ -
110	Res General	\$ (1,597)	\$ (2,991)	\$ (5,634)	\$ (3,186)	\$ (2,236)	\$ (982)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (16,626)	\$ (16,626)	\$ -
111	G50 Low Annual-Low Winter	\$ (5,376)	\$ (10,073)	\$ (18,970)	\$ (10,727)	\$ (7,530)	\$ (3,307)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (55,983)	\$ (55,983)	\$ -
112	G40 Low Annual-High Winter	\$ (95,175)	\$ (178,312)	\$ (335,817)	\$ (189,894)	\$ (133,304)	\$ (58,536)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (991,037)	\$ (991,037)	\$ -
113	G51 Med Annual-Low Winter	\$ (8,750)	\$ (16,393)	\$ (30,873)	\$ (17,458)	\$ (12,255)	\$ (5,381)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (91,109)	\$ (91,109)	\$ -
114	G41 Med Annual-High Winter	\$ (72,917)	\$ (136,610)	\$ (257,280)	\$ (145,484)	\$ (102,128)	\$ (44,846)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (759,266)	\$ (759,266)	\$ -
115	G52 High Annual-Low Winter	\$ (1,719)	\$ (3,221)	\$ (6,067)	\$ (3,430)	\$ (2,408)	\$ (1,057)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (17,903)	\$ (17,903)	\$ -
116	G42 High Annual-High Winter	\$ (14,923)	\$ (27,959)	\$ (52,655)	\$ (29,775)	\$ (20,902)	\$ (9,178)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (155,391)	\$ (155,391)	\$ -
117	TOTAL	\$ (391,517)	\$ (733,509)	\$ (1,381,430)	\$ (781,155)	\$ (548,364)	\$ (240,795)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (4,076,771)	\$ (4,076,771)	\$ -
118																
119	Residential	\$ (192,656)	\$ (360,942)	\$ (679,769)	\$ (384,388)	\$ (269,837)	\$ (118,489)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (2,006,081)	\$ (2,006,081)	\$ -
120	SALES HLF CLASSES	\$ (15,846)	\$ (29,687)	\$ (55,909)	\$ (31,615)	\$ (22,193)	\$ (9,745)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (164,995)	\$ (164,995)	\$ -
121	SALES LLF CLASSES	\$ (183,015)	\$ (342,880)	\$ (645,752)	\$ (365,152)	\$ (256,334)	\$ (112,560)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (1,905,694)	\$ (1,905,694)	\$ -

123 **MISCELLANEOUS CREDITS BY CLASS (Includes Re-entry Rate & Conversion Rate Revenues)**

124		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	SUMMER
125	NH DIVISION - MISCELLANEOUS CREDIT	\$ (480)	\$ (900)	\$ (1,694)	\$ (958)	\$ (673)	\$ (295)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (5,000)	\$ (5,000)	\$ -
126																
127	Res Heat	\$ (234)	\$ (439)	\$ (827)	\$ (468)	\$ (328)	\$ (144)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (2,440)	\$ (2,440)	\$ -
128	Res General	\$ (2)	\$ (4)	\$ (7)	\$ (4)	\$ (3)	\$ (1)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (20)	\$ (20)	\$ -
129	G50 Low Annual-Low Winter	\$ (7)	\$ (12)	\$ (23)	\$ (13)	\$ (9)	\$ (4)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (69)	\$ (69)	\$ -
130	G40 Low Annual-High Winter	\$ (117)	\$ (219)	\$ (412)	\$ (233)	\$ (163)	\$ (72)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (1,215)	\$ (1,215)	\$ -
131	G51 Med Annual-Low Winter	\$ (11)	\$ (20)	\$ (38)	\$ (21)	\$ (15)	\$ (7)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (112)	\$ (112)	\$ -
132	G41 Med Annual-High Winter	\$ (89)	\$ (168)	\$ (316)	\$ (178)	\$ (125)	\$ (55)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (931)	\$ (931)	\$ -
133	G52 High Annual-Low Winter	\$ (2)	\$ (4)	\$ (7)	\$ (4)	\$ (3)	\$ (1)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (22)	\$ (22)	\$ -
134	G42 High Annual-High Winter	\$ (18)	\$ (34)	\$ (65)	\$ (37)	\$ (26)	\$ (11)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (191)	\$ (191)	\$ -
135	TOTAL	\$ (480)	\$ (900)	\$ (1,694)	\$ (958)	\$ (673)	\$ (295)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (5,000)	\$ (5,000)	\$ -
136																
137	Residential	\$ (236)	\$ (443)	\$ (834)	\$ (471)	\$ (331)	\$ (145)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (2,460)	\$ (2,460)	\$ -
138	SALES HLF CLASSES	\$ (21)	\$ (40)	\$ (75)	\$ (43)	\$ (30)	\$ (13)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (223)	\$ (223)	\$ -
139	SALES LLF CLASSES	\$ (459)	\$ (860)	\$ (1,619)	\$ (915)	\$ (643)	\$ (282)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (4,777)	\$ (4,777)	\$ -

141 **TOTAL NON-BASE CAPACITY COSTS**

142		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	SUMMER
143	Res Heat	\$ 537,682	\$ 1,052,265	\$ 2,049,258	\$ 1,126,348	\$ 784,247	\$ 314,135	\$ 91,221	\$ 20,066	\$ -	\$ 684	\$ 14,836	\$ 152,403	\$ 6,143,145	\$ 5,863,935	\$ 279,210
144	Res General	\$ 4,493	\$ 8,794	\$ 17,126	\$ 9,413	\$ 6,554	\$ 2,625	\$ 762	\$ 168	\$ -	\$ 6	\$ 124	\$ 1,274	\$ 51,339	\$ 49,006	\$ 2,333
145	G50 Low Annual-Low Winter	\$ 15,130	\$ 29,611	\$ 57,666	\$ 31,695	\$ 22,069	\$ 8,840	\$ 2,567	\$ 565	\$ -	\$ 19	\$ 417	\$ 4,289	\$ 172,867	\$ 165,010	\$ 7,857
146	G40 Low Annual-High Winter	\$ 267,844	\$ 524,181	\$ 1,020,828	\$ 561,085	\$ 390,669	\$ 156,485	\$ 45,441	\$ 9,996	\$ -	\$ 341	\$ 7,391	\$ 75,919	\$ 3,060,177	\$ 2,921,090	\$ 139,087
147	G51 Med Annual-Low Winter	\$ 24,624	\$ 48,190	\$ 93,848	\$ 51,582	\$ 35,915	\$ 14,386	\$ 4,178	\$ 919	\$ -	\$ 31	\$ 679	\$ 6,979	\$ 281,332	\$ 268,545	\$ 12,787
148	G41 Med Annual-High Winter	\$ 205,204	\$ 401,592	\$ 782,089	\$ 429,865	\$ 299,304	\$ 119,888	\$ 34,814	\$ 7,658	\$ -	\$ 261	\$ 5,662	\$ 58,164	\$ 2,344,501	\$ 2,237,942	\$ 106,559
149	G52 High Annual-Low Winter	\$ 4,839	\$ 9,469	\$ 18,441	\$ 10,136	\$ 7,057	\$ 2,827	\$ 821	\$ 181	\$ -	\$ 6	\$ 134	\$ 1,371	\$ 55,283	\$ 52,770	\$ 2,513
150	G42 High Annual-High Winter	\$ 41,997	\$ 82,190	\$ 160,062	\$ 87,976	\$ 61,255	\$ 24,536	\$ 7,125	\$ 1,567	\$ -	\$ 53	\$ 1,159	\$ 11,904	\$ 479,824	\$ 458,016	\$ 21,808
151	TOTAL	\$ 1,101,813	\$ 2,156,291	\$ 4,199,319	\$ 2,308,101	\$ 1,607,070	\$ 643,721	\$ 186,929	\$ 41,119	\$ -	\$ 1,401	\$ 30,402	\$ 312,303	\$ 12,588,468	\$ 12,016,314	\$ 572,154
152																
153	Residential	\$ 542,176	\$ 1,061,059	\$ 2,066,384	\$ 1,135,761	\$ 790,801	\$ 316,760	\$ 91,983	\$ 20,234	\$ -	\$ 690	\$ 14,960	\$ 153,677	\$ 6,194,484	\$ 5,912,941	\$ 281,544
154	SALES HLF CLASSES	\$ 44,593	\$ 87,270	\$ 169,955	\$ 93,414	\$ 65,041	\$ 26,053	\$ 7,565	\$ 1,664	\$ -	\$ 57	\$ 1,230	\$ 12,640	\$ 509,482	\$ 486,325	\$ 23,156
155	SALES LLF CLASSES	\$ 515,045	\$ 1,007,962	\$ 1,962,979	\$ 1,078,926	\$ 751,228	\$ 300,909	\$ 87,380	\$ 19,221	\$ -	\$ 655	\$ 14,212	\$ 145,987	\$ 5,884,503	\$ 5,617,048	\$ 267,455

156 **TOTAL CAPACITY COSTS**

157		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	SUMMER
158																
159	Res Heat	\$ 589,504	\$ 1,104,087	\$ 2,101,080	\$ 1,178,170	\$ 836,068	\$ 365,956	\$ 143,043	\$ 71,969	\$ 51,846	\$ 52,506	\$ 66,658	\$ 204,225	\$ 6,765,112	\$ 6,174,866	\$ 590,246
160	Res General	\$ 5,672	\$ 9,973	\$ 18,305	\$ 10,592	\$ 7,733	\$ 3,804	\$ 1,941	\$ 1,348	\$ 1,179	\$ 1,184	\$ 1,303	\$ 2,452	\$ 65,486	\$ 56,078	\$ 9,408
161	G50 Low Annual-Low Winter	\$ 24,914	\$ 39,395	\$ 67,450	\$ 41,479	\$ 31,853	\$ 18,624	\$ 12,351	\$ 10,364	\$ 9,789	\$ 9,803	\$ 10,202	\$ 14,073	\$ 290,296	\$ 223,715	\$ 66,581
162	G40 Low Annual-High Winter	\$ 287,478	\$ 543,815	\$ 1,040,462	\$ 580,719	\$ 410,303	\$ 176,119	\$ 65,075	\$ 29,661	\$ 19,643	\$ 19,975	\$ 27,025	\$ 95,553	\$ 3,295,828	\$ 3,038,896	\$ 256,932
163	G51 Med Annual-Low Winter	\$ 39,348	\$ 62,914	\$ 108,573	\$ 66,307	\$ 50,640	\$ 29,111	\$ 18,902	\$ 15,666	\$ 14,731	\$ 14,756	\$ 15,404	\$ 21,704	\$ 458,057	\$ 356,893	\$ 101,164
164	G41 Med Annual-High Winter	\$ 225,966	\$ 422,354	\$ 802,852	\$ 450,628	\$ 320,066	\$ 140,650	\$ 55,576	\$ 28,453	\$ 20,772	\$ 21,023	\$ 26,425	\$ 78,926	\$ 2,593,693	\$ 2,362,517	\$ 231,176
165	G52 High Annual-Low Winter	\$ 10,750	\$ 15,381	\$ 24,353	\$ 16,047	\$ 12,969	\$ 8,738	\$ 6,732	\$ 5,898	\$ 5,847	\$ 5,917	\$ 6,045	\$ 7,283	\$ 125,961	\$ 88,238	\$ 37,723
166	G42 High Annual-High Winter	\$ 48,508	\$ 88,701	\$ 166,573	\$ 94,487	\$ 67,766	\$ 31,047	\$ 13,636	\$ 8,088	\$ 6,520	\$ 6,564	\$ 7,670	\$ 18,415	\$ 557,975	\$ 497,082	\$ 60,893
167	TOTAL	\$ 1,232,141	\$ 2,286,619	\$ 4,329,647	\$ 2,438,429	\$ 1,737,398	\$ 774,050	\$ 317,257	\$ 171,448	\$ 130,328	\$ 131,730	\$ 160,731	\$ 442,631	\$ 14,152,409	\$ 12,798,284	\$ 1,354,125
168																
169	Residential	\$ 595,176	\$ 1,114,060	\$ 2,119,385	\$ 1,188,762	\$ 843,801	\$ 369,760	\$ 144,984	\$ 73,317	\$ 53,025	\$ 53,690	\$ 67,961	\$ 206,677	\$ 6,830,599	\$ 6,230,944	\$ 599,654
170	SALES HLF CLASSES	\$ 75,013	\$ 117,690	\$ 200,375	\$ 123,834	\$ 95,461	\$ 56,473	\$ 37,985	\$ 31,929	\$ 30,367	\$ 30,477	\$ 31,650	\$ 43,060	\$ 874,314	\$ 668,845	\$ 205,468
171	SALES LLF CLASSES	\$ 561,952	\$ 1,054,870	\$ 2,009,887	\$ 1,125,834	\$ 798,136	\$ 347,816	\$ 134,288	\$ 66,202	\$ 46,936	\$ 47,563	\$ 61,119	\$ 192,894	\$ 6,447,496	\$ 5,898,495	\$ 549,002

172 % ALLOCATION BETWEEN SALES HLF AND LLF

173																
174	SALES HLF CLASSES															
175	SALES LLF CLASSES															

105	CAPACITY RELEASE MARGINS & ASSET MANAGEMENT CREDIT BY CLASS	
106		
107	NH DIVISION - MONTHLY CAP. RELEASE	Attachment NUI-CAK-2, LN 77
108		
109	Res Heat	LN 40 Col D * LN 107
110	Res General	LN 41 Col D * LN 107
111	G50 Low Annual-Low Winter	LN 42 Col D * LN 107
112	G40 Low Annual-High Winter	LN 43 Col D * LN 107
113	G51 Med Annual-Low Winter	LN 44 Col D * LN 107
114	G41 Med Annual-High Winter	LN 45 Col D * LN 107
115	G52 High Annual-Low Winter	LN 46 Col D * LN 107
116	G42 High Annual-High Winter	LN 47 Col D * LN 107
117	TOTAL	Sum LN 109 : LN 116
118		
119	Residential	LN 109 + LN 110
120	SALES HLF CLASSES	LN 111 + LN 113 + LN 115
121	SALES LLF CLASSES	LN 112 + LN 114 + LN 116
122		
123	MISCELLANEOUS CREDITS BY CLASS (Includes Re-entry Rate & Conversion Ra	
124		
125	NH DIVISION - MISCELLANEOUS CREDIT	Attachment NUI-CAK-2, LN 78 + LN 79
126		
127	Res Heat	LN 40 Col D * LN 125
128	Res General	LN 41 Col D * LN 125
129	G50 Low Annual-Low Winter	LN 42 Col D * LN 125
130	G40 Low Annual-High Winter	LN 43 Col D * LN 125
131	G51 Med Annual-Low Winter	LN 44 Col D * LN 125
132	G41 Med Annual-High Winter	LN 45 Col D * LN 125
133	G52 High Annual-Low Winter	LN 46 Col D * LN 125
134	G42 High Annual-High Winter	LN 47 Col D * LN 125
135	TOTAL	Sum LN 127 : LN 134
136		
137	Residential	LN 127 + LN 128
138	SALES HLF CLASSES	LN 129 + LN 131 + LN 133
139	SALES LLF CLASSES	LN 130 + LN 132 + LN 134
140		
141	TOTAL NON-BASE CAPACITY COSTS	
142		
143	Res Heat	Sum of Ln 54, 72, 90, 109, 127
144	Res General	Sum of Ln 55, 73, 91, 110, 128
145	G50 Low Annual-Low Winter	Sum of Ln 56, 74, 92, 111, 129
146	G40 Low Annual-High Winter	Sum of Ln 57, 75, 93, 112, 130
147	G51 Med Annual-Low Winter	Sum of Ln 58, 76, 94, 113, 131
148	G41 Med Annual-High Winter	Sum of Ln 59, 77, 95, 114, 132
149	G52 High Annual-Low Winter	Sum of Ln 60, 78, 96, 115, 133
150	G42 High Annual-High Winter	Sum of Ln 61, 79, 97, 116, 134
151	TOTAL	Sum LN 143 : LN 150
152		
153	Residential	LN 143 + LN 144
154	SALES HLF CLASSES	LN 145 + LN 147 + LN 149
155	SALES LLF CLASSES	LN 146 + LN 148 + LN 150
156		
157	TOTAL CAPACITY COSTS	
158		
159	Res Heat	LN 143 + LN 26
160	Res General	LN 144 + LN 27
161	G50 Low Annual-Low Winter	LN 145 + LN 28
162	G40 Low Annual-High Winter	LN 146 + LN 29
163	G51 Med Annual-Low Winter	LN 147 + LN 30
164	G41 Med Annual-High Winter	LN 148 + LN 31
165	G52 High Annual-Low Winter	LN 149 + LN 32
166	G42 High Annual-High Winter	LN 150 + LN 33
167	TOTAL	Sum LN 159 : LN 166
168		
169	Residential	LN 159 + LN 160
170	SALES HLF CLASSES	LN 161 + LN 163 + LN 165
171	SALES LLF CLASSES	LN 162 + LN 164 + LN 166
172		
173	% ALLOCATION BETWEEN SALES HLF AND	
174	SALES HLF CLASSES	LN 170 / (LN170 + LN 171)
175	SALES LLF CLASSES	LN 171 / (LN 170 + LN 171)

Northern Utilities
ALLOCATION OF COMMODITY COSTS BETWEEN ME & NH DIVISIONS

	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	Summer
1 Supply Volumes - MMBtu															
2 Total Pipeline	982,127	978,933	926,892	846,586	1,023,092	1,103,596	623,919	427,539	395,807	401,078	426,093	718,859	8,854,520	5,861,225	2,993,295
3 Total Storage	334,018	731,204	814,153	870,348	598,789	0	0	0	0	0	0	0	3,348,512	3,348,512	0
4 Total Peaking	1,794	132,447	416,567	168,774	66,406	1,794	1,860	1,800	1,860	1,860	1,800	1,860	798,822	787,782	11,040
5 Total Off-system Sales													0	0	0
6 Subtotal	1,317,939	1,842,583	2,157,613	1,885,708	1,688,286	1,105,390	625,779	429,339	397,667	402,938	427,893	720,719	13,001,854	9,997,519	3,004,335
7 Less Interruptible - Maine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Less Interruptible - New Hampshire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Total Firm Supply	1,317,939	1,842,583	2,157,613	1,885,708	1,688,286	1,105,390	625,779	429,339	397,667	402,938	427,893	720,719	13,001,854	9,997,519	3,004,335
10 Total Firm Pipeline Sendout	982,127	978,933	926,892	846,586	1,023,092	1,103,596	623,919	427,539	395,807	401,078	426,093	718,859	8,854,520	5,861,225	2,993,295
11 Variable Costs															
12 Base Pipeline Costs Modeled in Sendout™	\$ 5,248,530	\$ 5,735,184	\$ 6,062,675	\$ 5,455,995	\$ 5,436,340	\$ 4,220,796	\$ 2,197,031	\$ 1,475,856	\$ 1,373,084	\$ 1,382,979	\$ 1,410,783	\$ 2,512,274	\$ 42,511,526	\$ 32,159,520	\$ 10,352,007
13 NYMEX Price Used for Forecast	\$5.305	\$5.398	\$5.465	\$5.370	\$5.013	\$3.939	\$3.810	\$3.839	\$3.871	\$3.879	\$3.863	\$3.890			
14 NYMEX Price Used for Update	\$5.305	\$5.398	\$5.465	\$5.370	\$5.013	\$3.939	\$3.810	\$3.839	\$3.871	\$3.879	\$3.863	\$3.890			
15 Increase/(Decrease) NYMEX Price	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
16 Increase/(Decrease) in Pipeline Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17 Total Updated Pipeline Costs	\$ 5,248,530	\$ 5,735,184	\$ 6,062,675	\$ 5,455,995	\$ 5,436,340	\$ 4,220,796	\$ 2,197,031	\$ 1,475,856	\$ 1,373,084	\$ 1,382,979	\$ 1,410,783	\$ 2,512,274	\$ 42,511,526	\$ 32,159,520	\$ 10,352,007
18															
19 Total Pipeline	\$ 5,248,530	\$ 5,735,184	\$ 6,062,675	\$ 5,455,995	\$ 5,436,340	\$ 4,220,796	\$ 2,197,031	\$ 1,475,856	\$ 1,373,084	\$ 1,382,979	\$ 1,410,783	\$ 2,512,274	\$ 42,511,526	\$ 32,159,520	\$ 10,352,007
20 Total Storage	\$ 1,044,295	\$ 2,265,206	\$ 2,524,545	\$ 2,702,360	\$ 1,867,551	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,403,958	\$ 10,403,958	\$ -
21 Total Peaking	\$ 9,526	\$ 2,091,388	\$ 4,553,220	\$ 2,865,280	\$ 1,286,222	\$ 10,221	\$ 10,555	\$ 11,094	\$ 11,464	\$ 11,464	\$ 13,455	\$ 14,402	\$ 10,888,290	\$ 10,815,857	\$ 72,433
22 Total Off-sytem Sales	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23															
24 Subtotal	\$ 6,302,351	\$10,091,778	\$13,140,440	\$11,023,635	\$ 8,590,113	\$ 4,231,017	\$ 2,207,586	\$ 1,486,950	\$ 1,384,547	\$ 1,394,443	\$ 1,424,238	\$ 2,526,676	\$ 63,803,774	\$ 53,379,334	\$ 10,424,440
25															
26 Interruptible Cost Estimate															
27 Variable Pipeline Costs	\$ 5,248,530	\$ 5,735,184	\$ 6,062,675	\$ 5,455,995	\$ 5,436,340	\$ 4,220,796	\$ 2,197,031	\$ 1,475,856	\$ 1,373,084	\$ 1,382,979	\$ 1,410,783	\$ 2,512,274	\$ 42,511,526	\$ 32,159,520	\$ 10,352,007
28 Average Supply Cost (\$/MMBtu)	\$ 5.344	\$ 5.859	\$ 6.541	\$ 6.445	\$ 5.314	\$ 3.825	\$ 3.521	\$ 3.452	\$ 3.469	\$ 3.448	\$ 3.311	\$ 3.495			
29 Interruptible Cost - Maine	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30 Interruptible Cost - New Hampshire	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31															
32 Total Pipeline	\$ 5,248,530	\$ 5,735,184	\$ 6,062,675	\$ 5,455,995	\$ 5,436,340	\$ 4,220,796	\$ 2,197,031	\$ 1,475,856	\$ 1,373,084	\$ 1,382,979	\$ 1,410,783	\$ 2,512,274	\$ 42,511,526	\$ 32,159,520	\$ 10,352,007
33 Total Storage	\$ 1,044,295	\$ 2,265,206	\$ 2,524,545	\$ 2,702,360	\$ 1,867,551	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,403,958	\$ 10,403,958	\$ -
34 Total Peaking	\$ 9,526	\$ 2,091,388	\$ 4,553,220	\$ 2,865,280	\$ 1,286,222	\$ 10,221	\$ 10,555	\$ 11,094	\$ 11,464	\$ 11,464	\$ 13,455	\$ 14,402	\$ 10,888,290	\$ 10,815,857	\$ 72,433
35 Off-system Sales	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36 Total Firm Sales Variable Costs	\$ 6,302,351	\$10,091,778	\$13,140,440	\$11,023,635	\$ 8,590,113	\$ 4,231,017	\$ 2,207,586	\$ 1,486,950	\$ 1,384,547	\$ 1,394,443	\$ 1,424,238	\$ 2,526,676	\$ 63,803,774	\$ 53,379,334	\$ 10,424,440

Northern Utilities
ALLOCATION OF COMMODITY COSTS BETWEEN ME & NH DIVISIONS

1	Supply Volumes - MMBtu	
2	Total Pipeline	Attachment NUI-FXW-8, Page 2
3	Total Storage	Attachment NUI-FXW-8, Page 2
4	Total Peaking	Attachment NUI-FXW-8, Page 2
5	Total Off-system Sales	NA
6	Subtotal	SUM LN 2: LN 6
7	Less Interruptible - Maine	Company Analysis
8	Less Interruptible - New Hampshire	Company Analysis
9	Total Firm Supply	LN 7 - LN 8 - LN 9
10	Total Firm Pipeline Sendout	LN 2 + LN 3- LN 8 - LN 9
11	Variable Costs	
12	Pipeline Costs Modeled in Sendout™	Attachment NUI-FXW-8, Page 1
13	NYMEX Price Used for Forecast	Attachment NUI-FXW10, Page 1
14	NYMEX Price Used for Update	Attachment NUI-FXW10, Page 1
15	Increase/(Decrease) NYMEX Price	LN 13 - LN 14
16	Increase/(Decrease) in Pipeline Costs	LN 2 * LN 15
17	Total Updated Pipeline Costs	LN 12 + LN 16
18		
19	Total Pipeline Baseload	LN 17
20	Total Storage	Attachment NUI-FXW-8, Page 1
21	Total Peaking	Attachment NUI-FXW-8, Page 1
22	Total Off-sytem Sales	NA
23		
24	Subtotal	Sum LN 19 : LN 22
25		
26	Interruptible Cost Estimate	Company Analysis
27	Variable Pipeline Costs Excl'd Hedges	LN 17
28	Average Supply Cost (\$/MMBtu)	LN 27 / LN 2
29	Interruptible Cost - Maine	LN 28 * LN 7
30	Interruptible Cost - New Hampshire	LN 28 * LN 8
31		
32	Firm Sales Pipeline Commodity	LN 19 - LN 29 - LN 30
33	Total Storage	LN 20
34	Total Peaking	LN 21
35	Off-system Sales	LN 22
36	Total Firm Sales Variable Costs	SUM LN 32 : LN 35

Northern Utilities
ALLOCATION OF COMMODITY COSTS BETWEEN ME & NH DIVISIONS

37 **Commodity Allocation Factors**

38 Firm Sales Sendout for Normal Winter, MMBtu

	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	Summer
40 Maine	840,656	1,162,033	1,359,609	1,199,672	1,101,525	755,361	432,603	302,023	288,888	292,515	305,552	480,776	8,521,213	6,418,856	2,102,357
41 New Hampshire	477,284	680,551	798,004	686,035	586,760	350,029	193,176	127,316	108,780	110,422	122,341	239,943	4,480,641	3,578,664	901,977
42 Total	1,317,940	1,842,584	2,157,613	1,885,708	1,688,285	1,105,390	625,779	429,339	397,667	402,938	427,893	720,719	13,001,854	9,997,520	3,004,334

44 **Percentage of Total**

45 Maine	63.79%	63.07%	63.01%	63.62%	65.25%	68.33%	69.13%	70.35%	72.65%	72.60%	71.41%	66.71%	65.54%	64.20%	69.98%
46 New Hampshire	36.21%	36.93%	36.99%	36.38%	34.75%	31.67%	30.87%	29.65%	27.35%	27.40%	28.59%	33.29%	34.46%	35.80%	30.02%
47 Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

49 **Commodity Allocation by Jurisdiction**

50 **Maine**

51 Total Pipeline	\$ 3,347,806	\$ 3,616,916	\$ 3,820,363	\$ 3,471,061	\$ 3,546,951	\$ 2,884,253	\$ 1,518,815	\$ 1,038,207	\$ 997,484	\$ 1,003,983	\$ 1,007,419	\$ 1,675,884	\$ 27,929,145	\$ 20,687,352	\$ 7,241,793
52 Storage	\$ 666,110	\$ 1,428,561	\$ 1,590,829	\$ 1,719,221	\$ 1,218,487	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,623,208	\$ 6,623,208	\$ -
53 Peaking	\$ 6,076	\$ 1,318,942	\$ 2,869,188	\$ 1,822,868	\$ 839,198	\$ 6,984	\$ 7,297	\$ 7,804	\$ 8,328	\$ 8,322	\$ 9,608	\$ 9,607	\$ 6,914,224	\$ 6,863,258	\$ 50,966
54 Off-system Sales	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
55 Total Maine Commodity Costs	\$ 4,019,993	\$ 6,364,420	\$ 8,280,380	\$ 7,013,150	\$ 5,604,637	\$ 2,891,238	\$ 1,526,112	\$ 1,046,011	\$ 1,005,812	\$ 1,012,305	\$ 1,017,028	\$ 1,685,492	\$ 41,466,577	\$ 34,173,818	\$ 7,292,759
56 Maine Inventory Finance Costs	\$ 335	\$ 522	\$ 640	\$ 561	\$ 485	\$ 284	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,827	\$ 2,827	\$ -
57 Total Maine Variable Costs	\$ 4,020,328	\$ 6,364,941	\$ 8,281,020	\$ 7,013,711	\$ 5,605,122	\$ 2,891,522	\$ 1,526,112	\$ 1,046,011	\$ 1,005,812	\$ 1,012,305	\$ 1,017,028	\$ 1,685,492	\$ 41,469,404	\$ 34,176,644	\$ 7,292,759

58 **New Hampshire**

59 Total Pipeline	\$ 1,900,723	\$ 2,118,268	\$ 2,242,311	\$ 1,984,934	\$ 1,889,389	\$ 1,336,543	\$ 678,216	\$ 437,649	\$ 375,599	\$ 378,996	\$ 403,363	\$ 836,389	\$ 14,582,381	\$ 11,472,168	\$ 3,110,213
60 Storage	\$ 378,185	\$ 836,645	\$ 933,716	\$ 983,140	\$ 649,063	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,780,749	\$ 3,780,749	\$ -
61 Peaking	\$ 3,450	\$ 772,446	\$ 1,684,032	\$ 1,042,411	\$ 447,024	\$ 3,237	\$ 3,258	\$ 3,290	\$ 3,136	\$ 3,142	\$ 3,847	\$ 4,795	\$ 3,974,066	\$ 3,952,599	\$ 21,467
62 Off-system Sales	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63 Total New Hampshire Commodity Costs	\$ 2,282,359	\$ 3,727,358	\$ 4,860,059	\$ 4,010,484	\$ 2,985,476	\$ 1,339,779	\$ 681,474	\$ 440,939	\$ 378,735	\$ 382,138	\$ 407,210	\$ 841,184	\$ 22,337,197	\$ 19,205,516	\$ 3,131,680
64 New Hampshire Inventory Finance Costs	\$ 174	\$ 268	\$ 323	\$ 275	\$ 224	\$ 114	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,378	\$ 1,378	\$ -
65 Total New Hampshire Variable Costs	\$ 2,282,533	\$ 3,727,626	\$ 4,860,382	\$ 4,010,760	\$ 2,985,700	\$ 1,339,894	\$ 681,474	\$ 440,939	\$ 378,735	\$ 382,138	\$ 407,210	\$ 841,184	\$ 22,338,575	\$ 19,206,895	\$ 3,131,680

66 **Northern Utilities**

67 Total Pipeline	\$ 5,248,530	\$ 5,735,184	\$ 6,062,675	\$ 5,455,995	\$ 5,436,340	\$ 4,220,796	\$ 2,197,031	\$ 1,475,856	\$ 1,373,084	\$ 1,382,979	\$ 1,410,783	\$ 2,512,274	\$ 42,511,526	\$ 32,159,520	\$ 10,352,007
68 Storage	\$ 1,044,295	\$ 2,265,206	\$ 2,524,545	\$ 2,702,360	\$ 1,867,551	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,403,958	\$ 10,403,958	\$ -
69 Peaking	\$ 9,526	\$ 2,091,388	\$ 4,553,220	\$ 2,865,280	\$ 1,286,222	\$ 10,221	\$ 10,555	\$ 11,094	\$ 11,464	\$ 11,464	\$ 13,455	\$ 14,402	\$ 10,888,290	\$ 10,815,857	\$ 72,433
70 Off-system Sales	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
71 Total Northern Commodity Costs	\$ 6,302,351	\$10,091,778	\$13,140,440	\$11,023,635	\$ 8,590,113	\$ 4,231,017	\$ 2,207,586	\$ 1,486,950	\$ 1,384,547	\$ 1,394,443	\$ 1,424,238	\$ 2,526,676	\$ 63,803,774	\$ 53,379,334	\$ 10,424,440
72 Northern Inventory Finance Costs	\$ 509	\$ 789	\$ 963	\$ 836	\$ 709	\$ 398	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,205	\$ 4,205	\$ -
73 Total Northern Variable Costs	\$ 6,302,860	\$10,092,567	\$13,141,403	\$11,024,471	\$ 8,590,822	\$ 4,231,415	\$ 2,207,586	\$ 1,486,950	\$ 1,384,547	\$ 1,394,443	\$ 1,424,238	\$ 2,526,676	\$ 63,807,979	\$ 53,383,539	\$ 10,424,440

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Northern Utilities
ALLOCATION OF COMMODITY COSTS BETWEEN ME & NH DIVISIONS

37 **Commodity Allocation Factors**

38 Firm Sales Sendout for Normal Winter, MMBtu

39		
40	Maine	Company Analysis
41	New Hampshire	NUI-CAK-3, LN 33/10
42	Total	LN 40 + LN 41

43		
44	Percentage of Total	
45	Maine	LN 40 / LN 42
46	New Hampshire	LN 41 / LN 42
47	Total	LN 45 + LN 46

48
49 **Commodity Allocation by Jurisdiction**

50 **Maine**

51	Firm Sales Pipeline Commodity	LN 32 * LN 45
52	Storage	LN 33 * LN 45
53	Peaking	LN 34 * LN 45
54	Off-system Sales	LN 35 * LN 45
55	Total Maine Commodity Costs	SUM LN 51 : LN 54
56	Maine Inventory Finance Costs	LN 95
57	Total Maine Variable Costs	LN 55 + LN 56

58 **New Hampshire**

59	Firm Sales Pipeline Commodity Excl'd Hedge	LN 32 * LN 46
60	Storage	LN 33 * LN 46
61	Peaking	LN 34 * LN 46
62	Off-system Sales	LN 35 * LN 46
63	Total New Hampshire Commodity Costs	SUM LN 59 : LN 62
64	New Hampshire Inventory Finance Costs	LN 100
65	Total New Hampshire Variable Costs	LN 63 + LN 64

66 **Northern Utilities**

67	Firm Sales Pipeline Commodity Excl'd Hedge	LN 51 + LN 59
68	Storage	LN 52 + LN 60
69	Peaking	LN 53 + LN 61
70	Off-system Sales	LN 54 + LN 62
71	Total Northern Commodity Costs	LN 55 + LN 63
72	Northern Inventory Finance Costs	LN 56 + LN 64
73	Total Northern Variable Costs	LN 57 + LN 65

74

Northern Utilities
ALLOCATION OF COMMODITY COSTS BETWEEN ME & NH DIVISIONS

75 **Northern Utilities**
76 **Simplified Market Based Allocator (MBA) Calculations**
77 **ALLOCATION OF NORTHERN INVENTORY FINANCE CHARGE**

	Col A	Col B	Col C	Col D	Col E	Col F	Col G	Col H	Col I	Col J	Col K	Col L	Col M	Col N	Col O	Col P
81	Inventory Finance Charge															
82		Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	Summer
83	Storage	\$ 606	\$ 509	\$ 314	\$ 130	\$ 21	\$ -	\$ 72	\$ 145	\$ 214	\$ 354	\$ 489	\$ 618	\$ 3,470		\$ 1,891
84	Peaking	\$ 64	\$ 53	\$ 43	\$ 33	\$ 29	\$ 52	\$ 74	\$ 77	\$ 74	\$ 61	\$ 76	\$ 99	\$ 735		\$ 461
85	Total	\$ 670	\$ 562	\$ 357	\$ 162	\$ 50	\$ 52	\$ 146	\$ 222	\$ 288	\$ 415	\$ 565	\$ 717	\$ 4,205		\$ 2,352
86	Inventory Finance Charge Allocation by Jurisdiction															
87	Maine	\$ 427	\$ 354	\$ 225	\$ 103	\$ 33	\$ 35	\$ 101	\$ 156	\$ 209	\$ 302	\$ 403	\$ 478	\$ 2,827		\$ 1,649
88	New Hampshire	\$ 243	\$ 208	\$ 132	\$ 59	\$ 17	\$ 16	\$ 45	\$ 66	\$ 79	\$ 114	\$ 161	\$ 239	\$ 1,378		\$ 703
89	Total	\$ 670	\$ 562	\$ 357	\$ 162	\$ 50	\$ 52	\$ 146	\$ 222	\$ 288	\$ 415	\$ 565	\$ 717	\$ 4,205		\$ 2,352
90	Inventory Finance Charge Allocation by Month															
91	Maine															
93	Firm Sales Normal Remaining Sendout	559,332	871,331	1,068,907	937,104	810,824	474,037	0	0	0	0	0	0	0	4,721,535	0
94	Monthly % Sendout of Total Winter	11.85%	18.45%	22.64%	19.85%	17.17%	10.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
95	ME Allocated Inventory Finance Charge	\$ 335	\$ 522	\$ 640	\$ 561	\$ 485	\$ 284	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,827	\$ -
96	New Hampshire															
98	Firm Sales Normal Remaining Sendout	371,219	570,950	688,403	587,041	477,159	243,964	0	0	0	0	0	0	0	2,938,735	0
99	Monthly % Sendout of Total Winter	12.63%	19.43%	23.43%	19.98%	16.24%	8.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
100	NH Allocated Inventory Finance Charge	\$ 174	\$ 268	\$ 323	\$ 275	\$ 224	\$ 114	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,378	\$ -

Northern Utilities
ALLOCATION OF COMMODITY COSTS BETWEEN ME & NH DIVISIONS

75 **Northern Utilities**
76 **Simplified Market Based Allocator (MBA) Calculations**
77 **ALLOCATION OF NORTHERN INVENTORY FINANCE CHARGE**
78
79
80

81	Inventory Finance Charge	
82	Storage	Attachment NUI-CAK-7 - 'Carrying Costs'
83	Peaking	Attachment NUI-CAK-7 - 'Carrying Costs'
84	Total	SUM LN 82 : LN 83

85	Inventory Finance Charge Allocation by Jurisdiction	
86		
87	Maine	LN 45 * LN 84
88	New Hampshire	LN 46 * LN 84
89	Total	SUM LN 87 : LN 88

90
91 **Inventory Finance Charge Allocation by Month**

92	Maine	
93	Firm Sales Remaining Sendout	Attachment NUI-CAK-3, LN 80/10
94	Monthly % Sendout of Total Winter	LN 93 / LN 93 COL O
95	ME Allocated Inventory Finance Charge	LN 94 * LN 87 COL N

96	New Hampshire	
97		
98	Firm Sales Remaining Sendout	Attachment NUI-CAK-3, LN 80/10
99	Monthly % Sendout of Total Winter	LN 98 / LN 98 COL O
100	NH Allocated Inventory Finance Charge	LN 99 * LN 88 COL N

**Northern Utilities - NEW HAMPSHIRE DIVISION
COMMODITY COSTS**

	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	Summer
Supply Volumes - Therms															
New Hampshire Sales Pipeline	3,556,713	3,615,649	3,428,159	3,079,946	3,555,734	3,494,609	1,926,016	1,267,821	1,082,707	1,099,128	1,218,262	2,393,235	29,717,980	20,730,811	8,987,169
New Hampshire Sales Storage	1,209,626	2,700,672	3,011,188	3,166,394	2,081,078	0	0	0	0	0	0	0	12,168,959	12,168,959	0
New Hampshire Sales Peaking	6,497	489,187	1,540,696	614,012	230,792	5,681	5,742	5,338	5,088	5,097	5,146	6,192	2,919,468	2,886,865	32,603
Total New Hampshire Firm Sales Sendout	4,772,837	6,805,508	7,980,043	6,860,353	5,867,604	3,500,290	1,931,758	1,273,159	1,087,795	1,104,225	1,223,408	2,399,427	44,806,406	35,786,634	9,019,772
New Hampshire Interruptible Sendout (Pipeline)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Firm Sendout	4,772,837	6,805,508	7,980,043	6,860,353	5,867,604	3,500,290	1,931,758	1,273,159	1,087,795	1,104,225	1,223,408	2,399,427	44,806,406	35,786,634	9,019,772
Total Firm Sales	4,713,183	6,720,446	7,880,297	6,774,602	5,794,261	3,456,540	1,907,611	1,257,246	1,074,199	1,090,422	1,208,118	2,369,434	44,246,359	35,339,329	8,907,030
Difference (LAUF & Company Use)	59,654	85,062	99,746	85,751	73,343	43,750	24,147	15,913	13,597	13,803	15,291	29,993	560,047	447,305	112,742
Percent Difference	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
Variable Costs															
New Hampshire Sales Pipeline	\$ 1,900,723	\$ 2,118,268	\$ 2,242,311	\$ 1,984,934	\$ 1,889,389	\$ 1,336,543	\$ 678,216	\$ 437,649	\$ 375,599	\$ 378,996	\$ 403,363	\$ 836,389	\$ 14,582,381	\$ 11,472,168	\$ 3,110,213
New Hampshire Total Storage	\$ 378,185	\$ 836,645	\$ 933,716	\$ 983,140	\$ 649,063	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,780,749	\$ 3,780,749	\$ -
New Hampshire Total Peaking	\$ 3,450	\$ 772,446	\$ 1,684,032	\$ 1,042,411	\$ 447,024	\$ 3,237	\$ 3,258	\$ 3,290	\$ 3,136	\$ 3,142	\$ 3,847	\$ 4,795	\$ 3,974,066	\$ 3,952,599	\$ 21,467
New Hampshire Inventory Finance Charge	\$ 174	\$ 268	\$ 323	\$ 275	\$ 224	\$ 114	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,378	\$ 1,378	\$ -
Total New Hampshire Sales Variable Costs	\$ 2,282,533	\$ 3,727,626	\$ 4,860,382	\$ 4,010,760	\$ 2,985,700	\$ 1,339,894	\$ 681,474	\$ 440,939	\$ 378,735	\$ 382,138	\$ 407,210	\$ 841,184	\$ 22,338,575	\$ 19,206,895	\$ 3,131,680
New Hampshire Interruptible Commodity Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total New Hampshire Commodity Costs	\$ 2,282,533	\$ 3,727,626	\$ 4,860,382	\$ 4,010,760	\$ 2,985,700	\$ 1,339,894	\$ 681,474	\$ 440,939	\$ 378,735	\$ 382,138	\$ 407,210	\$ 841,184	\$ 22,338,575	\$ 19,206,895	\$ 3,131,680
Supply Cost/Therm															
New Hampshire Sales Pipeline	\$ 0.534	\$ 0.586	\$ 0.654	\$ 0.644	\$ 0.531	\$ 0.382	\$ 0.352	\$ 0.345	\$ 0.347	\$ 0.345	\$ 0.331	\$ 0.349	\$ 0.491	\$ 0.553	\$ 0.346
New Hampshire Storage Excl Inventory Finance Costs	\$ 0.313	\$ 0.310	\$ 0.310	\$ 0.310	\$ 0.312	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.311	\$ 0.311	\$ -
New Hampshire Peaking Excl Inventory Finance Costs	\$ 0.531	\$ 1.579	\$ 1.093	\$ 1.698	\$ 1.937	\$ 0.570	\$ 0.567	\$ 0.616	\$ 0.616	\$ 0.616	\$ 0.748	\$ 0.774	\$ 1.361	\$ 1.369	\$ 0.658
New Hampshire Inventory Finance Costs per Dth Stor and Peak	\$ 0.000	\$ 0.000	\$ 0.000	\$ 0.000	\$ 0.000	\$ 0.020	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.000	\$ 0.000	\$ -
Weighted Average Cost per Dth Sendout	\$ 0.478	\$ 0.548	\$ 0.609	\$ 0.585	\$ 0.509	\$ 0.383	\$ 0.353	\$ 0.346	\$ 0.348	\$ 0.346	\$ 0.333	\$ 0.351	\$ 0.499	\$ 0.537	\$ 0.347
New Hampshire Interruptible Cost / Therm	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Commodity Costs															
Base Commodity, therms	1,060,655	1,096,010	1,096,010	989,944	1,096,010	1,060,655	1,096,010	1,059,006	1,087,795	1,096,010	1,060,655	1,096,010	12,894,769	6,399,283	6,495,486
Base Commodity Cost	\$ 566,819	\$ 642,109	\$ 716,885	\$ 637,990	\$ 582,380	\$ 405,656	\$ 385,942	\$ 365,567	\$ 377,364	\$ 377,921	\$ 351,180	\$ 383,034	\$ 5,792,848	\$ 3,551,839	\$ 2,241,009
Remaining Commodity	\$ 1,715,714	\$ 3,085,517	\$ 4,143,497	\$ 3,372,770	\$ 2,403,320	\$ 934,237	\$ 295,532	\$ 75,372	\$ 1,371	\$ 4,217	\$ 56,030	\$ 458,150	\$ 16,545,727	\$ 15,655,056	\$ 890,671
Total Commodity	\$ 2,282,533	\$ 3,727,626	\$ 4,860,382	\$ 4,010,760	\$ 2,985,700	\$ 1,339,894	\$ 681,474	\$ 440,939	\$ 378,735	\$ 382,138	\$ 407,210	\$ 841,184	\$ 22,338,575	\$ 19,206,895	\$ 3,131,680

**Northern Utilities - NEW HAMPSHIRE DIVISION
COMMODITY COSTS**

	Supply Volumes - Therms	
1	New Hampshire Sales Pipeline	Attachment NUI-CAK-5, LN 2 * LN 46 * 10
2	New Hampshire Sales Storage	Attachment NUI-CAK-5, LN 3 * LN 46 * 10
3	New Hampshire Sales Peaking	Attachment NUI-CAK-5, LN 4 * LN 46 * 10
4	Total New Hampshire Firm Sales Sendout	Sum LN 1 : LN 3
5		
6	New Hampshire Interruptible Sendout (Pipeline)	Attachment NUI-CAK-5, LN 8 * 10
7		
8	Total Firm Sendout	LN 4
9	Total Firm Sales	Attachment NUI-CAK-3, LN 11
10	Difference (LAUF & Company Use)	LN 8 - LN 9
11	Percent Difference	LN 10 / LN 8
12		
13	Variable Costs	
14	New Hampshire Sales Pipeline Commodity	Attachment NUI-CAK-5, LN 59
15	New Hampshire Total Storage	Attachment NUI-CAK-5, LN 60
16	New Hampshire Total Peaking	Attachment NUI-CAK-5, LN 61
17	New Hampshire Inventory Finance Charge	Attachment NUI-CAK-5, LN 64
18	Total New Hampshire Sales Variable Costs	Sum LN 14 : LN 17
19		
20	New Hampshire Interruptible Commodity Costs	Attachment NUI-CAK-5, LN 30
21	Total New Hampshire Commodity Costs	LN 18 + LN 20
22		
23	Supply Cost/Therm	
24	New Hampshire Sales Pipeline Commodity	LN 14 / LN 1
25	New Hampshire Storage Excl'd Inventory Finance Costs	LN 15 / LN 2
26	New Hampshire Peaking Excl'd Inventory Finance Costs	LN 16 / LN 3
27	New Hampshire Inventory Finance Costs per Dth Stor and Peak	LN 17 / Sum (LN 2 : LN 3)
28	Weighted Average Cost per Dth Sendout	LN 18 / LN 8
29		
30	New Hampshire Interruptible Cost / Therm	LN 20 / LN 6
31		
32	Commodity Costs	
33	Base Commodity, therms	Attachment NUI-CAK-3, LN 64
34	Base Commodity Cost	Min (LN 24 * LN 33), LN 18
35	Remaining Commodity	LN 21 - LN 34
36	Total Commodity	LN 34 + LN 35

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Northern Utilities, Inc.
New Hampshire Division
Attachment NUI-CAK-7
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Northern Utilities, Inc.
Storage Inventory and Activity Costs

Denotes Confidential Information

Tennessee Storage

Month	Beginning Inventory Volume	Injections	Withdrawals	Ending Inventory Volume	Beginning Inventory Cost	Beginning Inventory Rate	Injection Rate	Injected Value	Withdrawal Rate	Withdrawn Value	Ending Inventory Value	Interest Rate	Carrying Costs	Ending Inventory Value Excluding	Withdrawn Value plus Charges
Nov-21	210,132	-	-	210,132	559,161	\$ 2.66	NA	\$ -	\$ 2.66	\$ -	\$ 559,161	1.30%	\$ 606	\$ 559,161	\$ -
Dec-21	210,132	-	67,442	142,690	\$ 559,161	\$ 2.66	NA	\$ -	\$ 2.66	\$ 179,463	\$ 379,699	1.30%	\$ 509	\$ 379,699	\$ 179,463
Jan-22	142,690	-	67,442	75,248	\$ 379,699	\$ 2.66	NA	\$ -	\$ 2.66	\$ 179,463	\$ 200,236	1.30%	\$ 314	\$ 200,236	\$ 179,463
Feb-22	75,248	-	60,580	14,668	\$ 200,236	\$ 2.66	NA	\$ -	\$ 2.66	\$ 161,204	\$ 39,032	1.30%	\$ 130	\$ 39,032	\$ 161,204
Mar-22	14,668	-	14,668	-	\$ 39,032	\$ 2.66	NA	\$ -	\$ 2.66	\$ 39,032	\$ -	1.30%	\$ 21	\$ -	\$ 39,032
Apr-22	-	-	-	-	\$ -	NA	NA	\$ -	\$ -	\$ -	\$ -	1.30%	\$ -	\$ -	\$ -
May-22	-	42,727	-	42,727	\$ -	NA	\$ 3.13	\$ 133,552	\$ -	\$ -	\$ 133,552	1.30%	\$ 72	\$ 133,552	\$ -
Jun-22	42,727	-	-	42,727	\$ 133,552	\$ 3.13	NA	\$ -	\$ 3.13	\$ -	\$ 133,552	1.30%	\$ 145	\$ 133,552	\$ -
Jul-22	42,727	40,601	-	83,328	\$ 133,552	\$ 3.13	\$ 3.14	\$ 127,441	\$ 3.13	\$ -	\$ 260,992	1.30%	\$ 214	\$ 260,992	\$ -
Aug-22	83,328	42,727	-	126,055	\$ 260,992	\$ 3.13	\$ 3.08	\$ 131,423	\$ 3.11	\$ -	\$ 392,415	1.30%	\$ 354	\$ 392,414	\$ -
Sep-22	126,055	41,349	-	167,405	\$ 392,415	\$ 3.11	\$ 2.83	\$ 117,181	\$ 3.04	\$ -	\$ 509,596	1.30%	\$ 489	\$ 509,595	\$ -
Oct-22	167,405	42,727	-	210,132	\$ 509,596	\$ 3.04	\$ 2.84	\$ 121,256	\$ 3.00	\$ -	\$ 630,852	1.30%	\$ 618	\$ 630,851	\$ -

Union Storage

Month	Beginning Inventory Volume	Injections	Withdrawals	Ending Inventory Volume	Beginning Inventory Cost	Beginning Inventory Rate	Injection Rate	Injected Value	Withdrawal Rate	Withdrawn Value	Ending Inventory Value	Interest Rate	Carrying Costs	Ending Inventory Value Excluding	Withdrawn Value plus Charges
Nov-21	3,241,066	-	344,586	2,896,480	\$ 9,716,716	\$ 3.00	NA	\$ -	\$ 3.00	\$ 1,033,068	\$ 8,683,648			\$ 8,683,648	\$ 1,033,068
Dec-21	2,896,480	-	685,851	2,210,629	\$ 8,683,648	\$ 3.00	NA	\$ -	\$ 3.00	\$ 2,056,182	\$ 6,627,466			\$ 6,627,466	\$ 2,056,182
Jan-22	2,210,629	-	771,425	1,439,204	\$ 6,627,466	\$ 3.00	NA	\$ -	\$ 3.00	\$ 2,312,733	\$ 4,314,733			\$ 4,314,733	\$ 2,312,733
Feb-22	1,439,204	-	836,366	602,838	\$ 4,314,733	\$ 3.00	NA	\$ -	\$ 3.00	\$ 2,507,425	\$ 1,807,308			\$ 1,807,308	\$ 2,507,425
Mar-22	602,838	-	602,838	-	\$ 1,807,308	\$ 3.00	NA	\$ -	\$ 3.00	\$ 1,807,308	\$ -			\$ -	\$ 1,807,308
Apr-22	-	-	-	-	\$ -	#DIV/0!	NA	\$ -	#DIV/0!		\$ -			\$ -	\$ -
May-22	-	749,027	-	749,027	\$ -	#DIV/0!	\$ 3.66	\$ 2,741,099	\$ 3.66		\$ 2,741,099			\$ 2,741,099	\$ -
Jun-22	749,027	724,865	-	1,473,891	\$ 2,741,099	\$ 3.66	\$ 3.67	\$ 2,662,881	\$ 3.67		\$ 5,403,980			\$ 5,403,980	\$ -
Jul-22	1,473,891	-	-	1,473,891	\$ 5,403,980	\$ 3.67	NA	\$ -	\$ 3.67		\$ 5,403,980			\$ 5,403,980	\$ -
Aug-22	1,473,891	293,283	-	1,767,175	\$ 5,403,980	\$ 3.67	\$ 3.68	\$ 1,078,004	\$ 3.67		\$ 6,481,984			\$ 6,481,984	\$ -
Sep-22	1,767,175	724,865	-	2,492,039	\$ 6,481,984	\$ 3.67	\$ 3.66	\$ 2,656,322	\$ 3.67		\$ 9,138,306			\$ 9,138,306	\$ -
Oct-22	2,492,039	749,027	-	3,241,066	\$ 9,138,306	\$ 3.67	\$ -	\$ 2,752,370	\$ 3.67		\$ 11,890,676			\$ 11,890,676	\$ -

LNG Storage

Month	Beginning Inventory Volume	Injections	Withdrawals	Ending Inventory Volume	Beginning Inventory Cost	Beginning Inventory Rate	Injection Rate	Injected Value	Withdrawal Rate	Withdrawn Value	Ending Inventory Value	Interest Rate	Carrying Costs	Ending Inventory Value Excluding	Withdrawn Value plus Charges
Nov-21	12,000	-	1,794	10,206											
Dec-21	10,206	-	1,854	8,352											
Jan-22	8,352	-	1,854	6,498											
Feb-22	6,498	-	1,674	4,824											
Mar-22	4,824	1,830	1,854	4,800											
Apr-22	4,800	8,994	1,794	12,000											
May-22	12,000	1,860	1,860	12,000											
Jun-22	12,000	1,800	1,800	12,000											
Jul-22	12,000	-	1,860	10,140											
Aug-22	10,140	-	1,860	8,280											
Sep-22	8,280	5,520	1,800	12,000											
Oct-22	12,000	1,860	1,860	12,000											

Northern Utilities - NEW HAMPSHIRE DIVISION
Allocation of Commodity Costs to Customer Classes

Base Commodity Costs

1	BASE SENDOUT BY CLASS	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	Summer
2	Total Therms															
3	Res Heat	421,743	435,801	435,801	393,627	435,801	421,743	435,801	421,743	432,738	435,801	421,743	435,801	5,128,145	2,544,517	2,583,628
4	Res General	9,593	9,913	9,913	8,953	9,913	9,593	9,913	9,593	9,843	9,913	9,593	9,913	116,644	57,877	58,767
5	G50 Low Annual-Low Winter	79,626	82,281	82,281	74,318	82,281	79,626	82,281	79,626	81,702	82,281	79,626	82,281	968,209	480,412	487,797
6	G40 Low Annual-High Winter	159,790	165,116	165,116	149,137	165,116	159,790	165,116	159,790	163,956	165,116	159,790	165,116	1,942,950	964,066	978,884
7	G51 Med Annual-Low Winter	119,834	123,828	123,828	111,845	123,828	119,834	123,828	119,834	122,958	123,828	119,834	123,828	1,457,105	722,996	734,109
8	G41 Med Annual-High Winter	168,972	174,604	174,604	157,707	174,604	168,972	174,604	168,972	173,377	174,604	168,972	174,604	2,054,595	1,019,463	1,035,133
9	G52 High Annual-Low Winter	48,108	49,712	49,712	44,901	49,712	48,108	49,712	46,460	48,804	49,712	48,108	49,712	582,759	290,252	292,507
10	G42 High Annual-High Winter	52,989	54,755	54,755	49,456	54,755	52,989	54,755	52,989	54,419	54,755	52,989	54,755	644,362	319,700	324,662
11	Total Firm Sales	1,060,655	1,096,010	1,096,010	989,944	1,096,010	1,060,655	1,096,010	1,059,006	1,087,795	1,096,010	1,060,655	1,096,010	12,894,769	6,399,283	6,495,486
12	% of Total															
13	Res Heat	39.76%	39.76%	39.76%	39.76%	39.76%	39.76%	39.76%	39.82%	39.78%	39.76%	39.76%	39.76%			
14	Res General	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.91%	0.90%	0.90%	0.90%	0.90%			
15	G50 Low Annual-Low Winter	7.51%	7.51%	7.51%	7.51%	7.51%	7.51%	7.51%	7.52%	7.51%	7.51%	7.51%	7.51%			
16	G40 Low Annual-High Winter	15.07%	15.07%	15.07%	15.07%	15.07%	15.07%	15.07%	15.09%	15.07%	15.07%	15.07%	15.07%			
17	G51 Med Annual-Low Winter	11.30%	11.30%	11.30%	11.30%	11.30%	11.30%	11.30%	11.32%	11.30%	11.30%	11.30%	11.30%			
18	G41 Med Annual-High Winter	15.93%	15.93%	15.93%	15.93%	15.93%	15.93%	15.93%	15.96%	15.94%	15.93%	15.93%	15.93%			
19	G52 High Annual-Low Winter	4.54%	4.54%	4.54%	4.54%	4.54%	4.54%	4.54%	4.39%	4.49%	4.54%	4.54%	4.54%			
20	G42 High Annual-High Winter	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%			
21	Total Firm Sales	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%			
22	BASE COMMODITY COSTS	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	Summer
23	TOTAL BASE COMMODITY	\$ 566,819	\$ 642,109	\$ 716,885	\$ 637,990	\$ 582,380	\$ 405,656	\$ 385,942	\$ 365,567	\$ 377,364	\$ 377,921	\$ 351,180	\$ 383,034	\$ 5,792,848	\$ 3,551,839	\$ 2,241,009
24	Res Heat	\$ 225,381	\$ 255,319	\$ 285,052	\$ 253,681	\$ 231,569	\$ 161,299	\$ 153,460	\$ 145,585	\$ 150,120	\$ 150,271	\$ 139,638	\$ 152,304	\$ 2,303,679	\$ 1,412,301	\$ 891,378
25	Res General	\$ 5,127	\$ 5,807	\$ 6,484	\$ 5,770	\$ 5,267	\$ 3,669	\$ 3,491	\$ 3,311	\$ 3,415	\$ 3,418	\$ 3,176	\$ 3,464	\$ 52,399	\$ 32,124	\$ 20,275
26	G50 Low Annual-Low Winter	\$ 42,553	\$ 48,205	\$ 53,819	\$ 47,896	\$ 43,721	\$ 30,454	\$ 28,974	\$ 27,487	\$ 28,343	\$ 28,372	\$ 26,364	\$ 28,755	\$ 434,942	\$ 266,647	\$ 168,295
27	G40 Low Annual-High Winter	\$ 85,392	\$ 96,735	\$ 108,000	\$ 96,115	\$ 87,737	\$ 61,113	\$ 58,143	\$ 55,159	\$ 56,877	\$ 56,935	\$ 52,906	\$ 57,705	\$ 872,817	\$ 535,092	\$ 337,725
28	G51 Med Annual-Low Winter	\$ 64,040	\$ 72,546	\$ 80,994	\$ 72,081	\$ 65,798	\$ 45,831	\$ 43,604	\$ 41,366	\$ 42,655	\$ 42,698	\$ 39,677	\$ 43,276	\$ 654,565	\$ 401,289	\$ 253,275
29	G41 Med Annual-High Winter	\$ 90,299	\$ 102,294	\$ 114,206	\$ 101,637	\$ 92,778	\$ 64,625	\$ 61,484	\$ 58,329	\$ 60,146	\$ 60,206	\$ 55,946	\$ 61,021	\$ 922,971	\$ 565,840	\$ 357,132
30	G52 High Annual-Low Winter	\$ 25,709	\$ 29,124	\$ 32,516	\$ 28,937	\$ 26,415	\$ 18,399	\$ 17,505	\$ 16,038	\$ 16,931	\$ 17,141	\$ 15,928	\$ 17,373	\$ 262,017	\$ 161,101	\$ 100,917
31	G42 High Annual-High Winter	\$ 28,317	\$ 32,079	\$ 35,815	\$ 31,873	\$ 29,095	\$ 20,266	\$ 19,281	\$ 18,292	\$ 18,878	\$ 18,880	\$ 17,544	\$ 19,136	\$ 289,457	\$ 177,445	\$ 112,012
32																
33	Residential	\$ 230,508	\$ 261,126	\$ 291,535	\$ 259,451	\$ 236,836	\$ 164,968	\$ 156,951	\$ 148,896	\$ 153,534	\$ 153,689	\$ 142,814	\$ 155,768	\$ 2,356,079	\$ 1,444,425	\$ 911,654
34	SALES HLF CLASSES	\$ 132,301	\$ 149,875	\$ 167,329	\$ 148,914	\$ 135,934	\$ 94,684	\$ 90,083	\$ 84,891	\$ 87,928	\$ 88,211	\$ 81,969	\$ 89,404	\$ 1,351,524	\$ 829,037	\$ 522,487
35	SALES LLF CLASSES	\$ 204,009	\$ 231,108	\$ 258,021	\$ 229,625	\$ 209,610	\$ 146,004	\$ 138,908	\$ 131,780	\$ 135,901	\$ 136,021	\$ 126,397	\$ 137,862	\$ 2,085,246	\$ 1,278,377	\$ 806,869

Northern Utilities - NEW HAMPSHIRE DIVISION
Allocation of Commodity Costs to Customer Classes

Base Commodity Costs

1	BASE SENDOUT BY CLASS	
2	Total Therms	
3	Res Heat	Attachment NUI-CAK-3, LN 52
4	Res General	Attachment NUI-CAK-3, LN 53
5	G50 Low Annual-Low Winter	Attachment NUI-CAK-3, LN 54
6	G40 Low Annual-High Winter	Attachment NUI-CAK-3, LN 55
7	G51 Med Annual-Low Winter	Attachment NUI-CAK-3, LN 56
8	G41 Med Annual-High Winter	Attachment NUI-CAK-3, LN 57
9	G52 High Annual-Low Winter	Attachment NUI-CAK-3, LN 58
10	G42 High Annual-High Winter	Attachment NUI-CAK-3, LN 59
11	Total Firm Sales	Sum LN 3 : LN 10
12	% of Total	
13	Res Heat	LN 3 / LN 11
14	Res General	LN 4 / LN 11
15	G50 Low Annual-Low Winter	LN 5 / LN 11
16	G40 Low Annual-High Winter	LN 6 / LN 11
17	G51 Med Annual-Low Winter	LN 7 / LN 11
18	G41 Med Annual-High Winter	LN 8 / LN 11
19	G52 High Annual-Low Winter	LN 9 / LN 11
20	G42 High Annual-High Winter	LN 10 / LN 11
21	Total Firm Sales	Sum LN 13 : LN 20
22	BASE COMMODITY COSTS	
23	TOTAL BASE COMMODITY	Attachment NUI-CAK-6, LN 34
24	Res Heat	LN 23 * LN 13
25	Res General	LN 23 * LN 14
26	G50 Low Annual-Low Winter	LN 23 * LN 15
27	G40 Low Annual-High Winter	LN 23 * LN 16
28	G51 Med Annual-Low Winter	LN 23 * LN 17
29	G41 Med Annual-High Winter	LN 23 * LN 18
30	G52 High Annual-Low Winter	LN 23 * LN 19
31	G42 High Annual-High Winter	LN 23 * LN 20
32		
33	Residential	LN 24 + LN 25
34	SALES HLF CLASSES	LN 26 + LN 28 + LN 30
35	SALES LLF CLASSES	LN 27 + LN 29 + LN 31

Northern Utilities - NEW HAMPSHIRE DIVISION
Allocation of Commodity Costs to Customer Classes

Remaining Commodity Costs

REMAINING SENDOUT BY CLASS	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	Summer
Total Therms															
Res Heat	1,821,127	2,781,171	3,329,231	2,837,545	2,318,857	1,199,662	348,133	90,340	-	3,064	65,245	546,496	15,340,872	14,287,594	1,053,279
Res General	11,022	19,655	24,693	20,745	15,406	5,310	7,919	2,055	-	70	1,484	12,431	120,789	96,831	23,958
G50 Low Annual-Low Winter	40,194	89,579	118,858	98,300	64,881	6,994	65,729	17,056	-	578	12,319	103,180	617,667	418,805	198,862
G40 Low Annual-High Winter	983,065	1,474,093	1,753,357	1,497,307	1,238,520	666,397	131,900	34,228	-	1,161	24,720	207,056	8,011,804	7,612,738	399,066
G51 Med Annual-Low Winter	78,785	161,053	209,586	174,293	120,112	23,751	98,918	25,669	-	870	18,539	155,281	1,066,858	767,580	299,277
G41 Med Annual-High Winter	670,473	1,029,421	1,234,544	1,051,632	856,389	437,876	139,480	36,195	-	1,227	26,141	218,954	5,702,332	5,280,335	421,997
G52 High Annual-Low Winter	6,473	3,077	9,625	12,441	9,344	5,998	3,695	-	-	908	843	4,236	56,640	46,958	9,682
G42 High Annual-High Winter	101,047	151,451	204,138	178,143	148,081	93,650	39,973	8,610	-	336	13,464	55,781	994,676	876,512	118,164
Total Firm Sales	3,712,185	5,709,500	6,884,032	5,870,407	4,771,592	2,439,637	835,747	214,153	-	8,214	162,755	1,303,416	31,911,637	29,387,353	2,524,285
% of Total															
Res Heat	49.06%	48.71%	48.36%	48.34%	48.60%	49.17%	41.66%	42.18%	37.30%	37.30%	40.09%	41.93%			
Res General	0.30%	0.34%	0.36%	0.35%	0.32%	0.22%	0.95%	0.85%	0.85%	0.85%	0.91%	0.95%			
G50 Low Annual-Low Winter	1.08%	1.57%	1.73%	1.67%	1.36%	0.29%	7.86%	7.96%	7.04%	7.04%	7.57%	7.92%			
G40 Low Annual-High Winter	26.48%	25.82%	25.47%	25.51%	25.96%	27.32%	15.78%	15.98%	14.13%	14.13%	15.19%	15.89%			
G51 Med Annual-Low Winter	2.12%	2.82%	3.04%	2.97%	2.52%	0.97%	11.84%	11.99%	10.60%	10.60%	11.39%	11.91%			
G41 Med Annual-High Winter	18.06%	18.03%	17.93%	17.91%	17.95%	17.95%	16.69%	16.90%	14.94%	14.94%	16.06%	16.80%			
G52 High Annual-Low Winter	0.17%	0.05%	0.14%	0.21%	0.20%	0.44%	0.44%	0.00%	11.05%	11.05%	0.52%	0.33%			
G42 High Annual-High Winter	2.72%	2.65%	2.97%	3.03%	3.10%	3.84%	4.78%	4.02%	4.10%	4.10%	8.27%	4.28%			
Total Firm Sales	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%			

REMAINING COMMODITY COSTS	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	Summer
REMAINING COMMODITY	\$ 1,715,714	\$ 3,085,517	\$ 4,143,497	\$ 3,372,770	\$ 2,403,320	\$ 934,237	\$ 295,532	\$ 75,372	\$ 1,371	\$ 4,217	\$ 56,030	\$ 458,150	\$ 16,545,727	\$ 15,655,056	\$ 890,671
Res Heat	\$ 841,696	\$ 1,502,995	\$ 2,003,864	\$ 1,630,276	\$ 1,167,945	\$ 459,400	\$ 123,105	\$ 31,796	\$ 511	\$ 1,573	\$ 22,462	\$ 192,093	\$ 7,977,716	\$ 7,606,177	\$ 371,539
Res General	\$ 5,094	\$ 10,622	\$ 14,862	\$ 11,919	\$ 7,760	\$ 2,033	\$ 2,800	\$ 723	\$ 12	\$ 36	\$ 511	\$ 4,369	\$ 60,741	\$ 52,290	\$ 8,451
G50 Low Annual-Low Winter	\$ 18,577	\$ 48,410	\$ 71,540	\$ 56,477	\$ 32,679	\$ 2,678	\$ 23,243	\$ 6,003	\$ 97	\$ 297	\$ 4,241	\$ 36,268	\$ 300,509	\$ 230,361	\$ 70,148
G40 Low Annual-High Winter	\$ 454,357	\$ 796,626	\$ 1,055,345	\$ 860,259	\$ 623,809	\$ 255,191	\$ 46,642	\$ 12,047	\$ 194	\$ 596	\$ 8,510	\$ 72,780	\$ 4,186,356	\$ 4,045,587	\$ 140,769
G51 Med Annual-Low Winter	\$ 36,413	\$ 87,036	\$ 126,150	\$ 100,138	\$ 60,497	\$ 9,095	\$ 34,979	\$ 9,034	\$ 145	\$ 447	\$ 6,382	\$ 54,581	\$ 524,898	\$ 419,329	\$ 105,569
G41 Med Annual-High Winter	\$ 309,882	\$ 556,317	\$ 743,072	\$ 604,202	\$ 431,340	\$ 167,681	\$ 49,322	\$ 12,739	\$ 205	\$ 630	\$ 8,999	\$ 76,962	\$ 2,961,352	\$ 2,812,494	\$ 148,857
G52 High Annual-Low Winter	\$ 2,992	\$ 1,663	\$ 5,793	\$ 7,148	\$ 4,707	\$ 2,297	\$ 1,307	\$ -	\$ 151	\$ 466	\$ 290	\$ 1,489	\$ 28,302	\$ 24,599	\$ 3,703
G42 High Annual-High Winter	\$ 46,702	\$ 81,847	\$ 122,871	\$ 102,350	\$ 74,585	\$ 35,862	\$ 14,135	\$ 3,030	\$ 56	\$ 173	\$ 4,635	\$ 19,607	\$ 505,853	\$ 464,217	\$ 41,636
Residential	\$ 846,791	\$ 1,513,617	\$ 2,018,726	\$ 1,642,195	\$ 1,175,705	\$ 461,433	\$ 125,905	\$ 32,519	\$ 523	\$ 1,608	\$ 22,972	\$ 196,462	\$ 8,038,457	\$ 7,658,467	\$ 379,990
SALES HLF CLASSES	\$ 57,982	\$ 137,109	\$ 203,484	\$ 163,763	\$ 97,882	\$ 14,070	\$ 59,528	\$ 15,037	\$ 393	\$ 1,210	\$ 10,913	\$ 92,338	\$ 853,710	\$ 674,290	\$ 179,420
SALES LLF CLASSES	\$ 810,942	\$ 1,434,791	\$ 1,921,288	\$ 1,566,811	\$ 1,129,733	\$ 458,734	\$ 110,099	\$ 27,816	\$ 455	\$ 1,399	\$ 22,145	\$ 169,349	\$ 7,653,561	\$ 7,322,299	\$ 331,262

Total Commodity Costs	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Annual	Winter	Summer
TOTAL COMMODITY	\$ 2,282,533	\$ 3,727,626	\$ 4,860,382	\$ 4,010,760	\$ 2,985,700	\$ 1,339,894	\$ 681,474	\$ 440,939	\$ 378,735	\$ 382,138	\$ 407,210	\$ 841,184	\$ 22,338,575	\$ 19,206,895	\$ 3,131,680
Res Heat	\$ 1,067,078	\$ 1,758,314	\$ 2,288,915	\$ 1,883,957	\$ 1,399,514	\$ 620,699	\$ 276,565	\$ 177,381	\$ 150,631	\$ 151,844	\$ 162,100	\$ 344,397	\$ 10,281,395	\$ 9,018,478	\$ 1,262,917
Res General	\$ 10,221	\$ 16,430	\$ 21,346	\$ 17,689	\$ 13,027	\$ 5,702	\$ 6,291	\$ 4,035	\$ 3,426	\$ 3,454	\$ 3,687	\$ 7,834	\$ 113,141	\$ 84,415	\$ 28,726
G50 Low Annual-Low Winter	\$ 61,130	\$ 96,615	\$ 125,359	\$ 104,373	\$ 76,400	\$ 33,132	\$ 52,216	\$ 33,490	\$ 28,440	\$ 28,669	\$ 30,605	\$ 65,023	\$ 735,451	\$ 497,008	\$ 238,443
G40 Low Annual-High Winter	\$ 539,750	\$ 893,361	\$ 1,163,345	\$ 956,374	\$ 711,546	\$ 316,304	\$ 104,785	\$ 67,206	\$ 57,071	\$ 57,530	\$ 61,416	\$ 130,485	\$ 5,059,173	\$ 4,580,679	\$ 478,494
G51 Med Annual-Low Winter	\$ 100,453	\$ 159,582	\$ 207,144	\$ 172,219	\$ 126,295	\$ 54,927	\$ 78,583	\$ 50,401	\$ 42,800	\$ 43,145	\$ 46,059	\$ 97,857	\$ 1,179,463	\$ 820,619	\$ 358,844
G41 Med Annual-High Winter	\$ 400,181	\$ 658,611	\$ 857,278	\$ 705,840	\$ 524,118	\$ 232,305	\$ 110,806	\$ 71,068	\$ 60,350	\$ 60,836	\$ 64,945	\$ 137,983	\$ 3,884,323	\$ 3,378,334	\$ 505,989
G52 High Annual-Low Winter	\$ 28,701	\$ 30,787	\$ 38,309	\$ 36,085	\$ 31,122	\$ 20,696	\$ 18,812	\$ 16,038	\$ 17,082	\$ 17,607	\$ 16,219	\$ 18,862	\$ 290,320	\$ 185,700	\$ 104,620
G42 High Annual-High Winter	\$ 75,020	\$ 113,926	\$ 158,685	\$ 134,223	\$ 103,679	\$ 56,129	\$ 33,416	\$ 21,322	\$ 18,934	\$ 19,053	\$ 22,180	\$ 38,743	\$ 795,310	\$ 641,662	\$ 153,648
Residential	\$ 1,077,298	\$ 1,774,744	\$ 2,310,261	\$ 1,901,646	\$ 1,412,541	\$ 626,401	\$ 282,856	\$ 181,415	\$ 154,057	\$ 155,298	\$ 165,787	\$ 352,231	\$ 10,394,536	\$ 9,102,892	\$ 1,291,644
SALES HLF CLASSES	\$ 190,283	\$ 286,984	\$ 370,812	\$ 312,677	\$ 233,816	\$ 108,754	\$ 149,611	\$ 99,928	\$ 88,322	\$ 89,420	\$ 92,882	\$ 181,742	\$ 2,205,233	\$ 1,503,327	\$ 701,906
SALES LLF CLASSES	\$ 1,014,951	\$ 1,665,899	\$ 2,179,309	\$ 1,796,437	\$ 1,339,343	\$ 604,738	\$ 249,007	\$ 159,595	\$ 136,356	\$ 137,420	\$ 148,541	\$ 307,211	\$ 9,738,806	\$ 8,600,676	\$ 1,138,131
% ALLOCATION BETWEEN HLF & LLF															
HLF CLASSES%														14.88%	38.15%
LLF CLASSES %														85.12%	61.85%

Northern Utilities - NEW HAMPSHIRE DIVISION
Allocation of Commodity Costs to Customer Classes

Remaining Commodity Costs

36	REMAINING SENDOUT BY CLASS	
37	Total Therms	
38	Res Heat	Attachment NUI-CAK-3, LN 68
39	Res General	Attachment NUI-CAK-3, LN 69
40	G50 Low Annual-Low Winter	Attachment NUI-CAK-3, LN 70
41	G40 Low Annual-High Winter	Attachment NUI-CAK-3, LN 71
42	G51 Med Annual-Low Winter	Attachment NUI-CAK-3, LN 72
43	G41 Med Annual-High Winter	Attachment NUI-CAK-3, LN 73
44	G52 High Annual-Low Winter	Attachment NUI-CAK-3, LN 74
45	G42 High Annual-High Winter	Attachment NUI-CAK-3, LN 75
46	Total Firm Sales	Sum LN 38 : LN 45
47	% of Total	
48	Res Heat	LN 38 / LN 46
49	Res General	LN 39 / LN 46
50	G50 Low Annual-Low Winter	LN 40 / LN 46
51	G40 Low Annual-High Winter	LN 41 / LN 46
52	G51 Med Annual-Low Winter	LN 42 / LN 46
53	G41 Med Annual-High Winter	LN 43 / LN 46
54	G52 High Annual-Low Winter	LN 44 / LN 46
55	G42 High Annual-High Winter	LN 45 / LN 46
56	Total Firm Sales	Sum LN 62 : LN 69

57	REMAINING COMMODITY COSTS	
58	REMAINING COMMODITY	Attachment NUI-CAK-6, LN 35
59	Res Heat	LN 58 * LN 48
60	Res General	LN 58 * LN 49
61	G50 Low Annual-Low Winter	LN 58 * LN 50
62	G40 Low Annual-High Winter	LN 58 * LN 51
63	G51 Med Annual-Low Winter	LN 58 * LN 52
64	G41 Med Annual-High Winter	LN 58 * LN 53
65	G52 High Annual-Low Winter	LN 58 * LN 54
66	G42 High Annual-High Winter	LN 58 * LN 55
67		
68	Residential	LN 59 + LN 60
69	SALES HLF CLASSES	LN 61 + LN 63 + LN 65
70	SALES LLF CLASSES	LN 62 + LN 64 + LN 66

Total Commodity Costs

71	TOTAL COMMODITY COSTS	
72	TOTAL COMMODITY	Attachment NUI-CAK-6, LN 36
73	Res Heat	LN 24 + LN 59
74	Res General	LN 25 + LN 60
75	G50 Low Annual-Low Winter	LN 26 + LN 61
76	G40 Low Annual-High Winter	LN 27 + LN 62
77	G51 Med Annual-Low Winter	LN 28 + LN 63
78	G41 Med Annual-High Winter	LN 29 + LN 64
79	G52 High Annual-Low Winter	LN 30 + LN 65
80	G42 High Annual-High Winter	LN 31 + LN 66
81		
82	Residential	LN 73 + LN 74
83	SALES HLF CLASSES	LN 75 + LN 77 + LN 79
84	SALES LLF CLASSES	LN 76 + LN 78 + LN 80

Northern Utilities - NEW HAMPSHIRE DIVISION
Supporting Detail to Proposed Tariff Sheets
Demand and Commodity Cost Reallocation to HLF and LLF Customers

	Winter	Summer	Annual	
1 Demand	\$ 12,798,284	\$ 1,354,125	\$ 14,152,409	Attachment NUI-CAK-2, LN 80
2 Commodity	\$ 19,206,895	\$ 3,131,680	\$ 22,338,575	Attachment NUI-CAK-6, LN 36
3 Total	\$ 32,005,179	\$ 4,485,805	\$ 36,490,984	LN 1 + LN 2
4				
5 Forecasted Firm Sales (Therms)	35,339,329	8,907,030	44,246,359	Attachment NUI-CAK-3, LN 11
6 Forecasted Residential Sales (Therms)	16,774,496	3,673,138	20,447,634	Attachment NUI-CAK-3, LN 3
7 Average Residential Rate:	Winter	Summer	Annual	
8 Average Demand Rate	\$0.3622	\$0.1520		LN 1 / LN 5
9 Average Commodity Rate	\$0.5435	\$0.3516		LN 2 / LN 5
10 Average Rate	\$0.9057	\$0.5036		LN 3 / LN 5
11				
12 Residential Reallocation:	Winter	Summer	Annual	
13 Demand Costs Allocated To Residential per SMBA	\$ 6,230,944	\$ 599,654	\$ 6,830,599	Attachment NUI-CAK-4, LN 169
14 Demand Costs Allocated To Residential per Avg Res. Rate	\$ 6,074,953	\$ 558,317	\$ 6,633,270	LN 8 * LN 6
15 Demand Reallocation:	\$ 155,991	\$ 41,337	\$ 197,329	LN 13 - LN 14
16 HLF Allocation	\$ 15,887	\$ 11,258	\$ 27,144	LN 15 * LN 20
17 LLF Allocation	\$ 140,104	\$ 30,080	\$ 170,184	LN 15 * LN 21
18				
19 SMBA Capacity Cost Allocation (%)				
20 HLF	10.18%	27.23%		Attachment NUI-CAK-4, LN 174
21 LLF	89.82%	72.77%		Attachment NUI-CAK-4, LN 175
22				
23 Commodity Costs Allocated To Residential per SMBA	\$ 9,102,892	\$ 1,291,644	\$ 10,394,536	Attachment NUI-CAK-8, LN 82
24 Commodity Costs Allocated To Residential per Avg Res. Rate	\$ 9,116,924	\$ 1,291,475	\$ 10,408,399	LN 9 * LN 6
25 Commodity Reallocation:	\$ (14,032)	\$ 168	\$ (13,864)	LN 23 - LN 24
26 HLF Allocation	\$ (2,088)	\$ 64	\$ (2,024)	LN 25 * LN 30
27 LLF Allocation	\$ (11,944)	\$ 104	\$ (11,840)	LN 25 * LN 31
28				
29 SMBA Commodity Cost Allocation (%)				
30 HLF	14.88%	38.15%		Attachment NUI-CAK-8, LN 87
31 LLF	85.12%	61.85%		Attachment NUI-CAK-8, LN 88

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
2020-21 ANNUAL COG RECONCILIATION
SCHEDULE 1: SUMMARY OF ANNUAL BALANCE
August 2020 - October 2021

	AMOUNT	
Annual Beginning Balance	\$ (1,320,875)	FORM III SCHEDULE 2
Less: Reported Collections	\$ (28,156,245)	FORM III SCHEDULE 3
Add: Cost of Firm Gas Allowable	\$ 29,800,471	FORM III SCHEDULE 4
Add: Interest	\$ (86,346)	FORM III SCHEDULE 2
Annual Ending Balance	\$ 237,004	

Allocation of Reconciliation Balance to 2021 / 2022 Winter Season and 2022 Summer Season

Winter Season Sales (DTHs)	3,533,933	Attachment NUI-CAK-3
Summer Season Sales(DTHs)	890,703	Attachment NUI-CAK-3

Winter Season Sales Percentage	79.87%
Summer Season Sales Percentage	20.13%

Reconciliation Allocated to Winter Season \$ 189,294

Reconciliation Allocated to Summer Season \$ 47,710

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
2020-21 ANNUAL COG RECONCILIATION
SCHEDULE 2: ADJUSTMENTS TO REPORTED SUMMER, WINTER AND ANNUAL ACCOUNTS
August 2020 - October 2021
Acct 191

	<u>Aug-20</u>	<u>Sep-20</u>	<u>Oct-20</u>	<u>Nov-20</u>	<u>Dec-20</u>	<u>Jan-21</u>	<u>Feb-21</u>	<u>Mar-21</u>	<u>Apr-21</u>	<u>May-21</u>	<u>Jun-21</u>	<u>Jul-21</u>	-----Estimated-----			<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Total</u>
Initial Account Beginning Balance	\$ (1,456,073)																		
Adjustment (1)	\$ 135,198																		
Adjusted Beginning Balance	\$ (1,320,875)	\$ (485,746)	\$ 339,439	\$ 1,191,118	\$ 526,216	\$ (611,235)	\$ (2,346,307)	\$ (4,200,362)	\$ (5,426,903)	\$ (5,377,699)	\$ (5,051,942)	\$ (3,950,322)	\$ (3,091,269)	\$ (2,005,967)	\$ (892,006)				
Plus: Cost of Firm Gas (Schedule 4)	\$ 952,706	\$ 1,122,305	\$ 1,339,833	\$ 2,199,518	\$ 3,098,711	\$ 3,453,314	\$ 2,894,144	\$ 2,832,065	\$ 2,250,229	\$ 1,380,129	\$ 1,396,231	\$ 1,434,047	\$ 1,578,420	\$ 1,647,240	\$ 2,221,580	\$ 29,800,471			
Less: Reported Collections (Schedule 3)	\$ (115,133)	\$ (296,923)	\$ (490,224)	\$ (2,866,742)	\$ (4,236,047)	\$ (5,184,385)	\$ (4,739,347)	\$ (4,045,586)	\$ (2,186,413)	\$ (1,040,267)	\$ (282,437)	\$ (565,472)	\$ (486,225)	\$ (529,360)	\$ (1,091,684)	\$ (28,156,245)			
Annual Account Ending Balance	\$ (483,303)	\$ 339,637	\$ 1,189,048	\$ 523,894	\$ (611,120)	\$ (2,342,307)	\$ (4,191,509)	\$ (5,413,884)	\$ (5,363,088)	\$ (5,037,838)	\$ (3,938,148)	\$ (3,081,746)	\$ (1,999,073)	\$ (888,087)	\$ 237,890				
Month's Average Balance	\$ (902,089)	\$ (73,054)	\$ 764,244	\$ 857,506	\$ (42,452)	\$ (1,476,771)	\$ (3,268,908)	\$ (4,807,123)	\$ (5,394,995)	\$ (5,207,768)	\$ (4,495,045)	\$ (3,516,034)	\$ (2,545,171)	\$ (1,447,027)	\$ (327,058)				
Interest Rate (Prime Rate)	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%				
Interest Applied	\$ (2,443)	\$ (198)	\$ 2,070	\$ 2,322	\$ (115)	\$ (4,000)	\$ (8,853)	\$ (13,019)	\$ (14,611)	\$ (14,104)	\$ (12,174)	\$ (9,523)	\$ (6,893)	\$ (3,919)	\$ (886)	\$ (86,346)			
						\$ (5,184,385)	\$ (4,739,347)	\$ (4,045,586)	\$ (2,186,413)	\$ (1,040,267)	\$ (282,437)	\$ (565,472)							
Annual Account Ending Balance w/int	\$ (485,746)	\$ 339,439	\$ 1,191,118	\$ 526,216	\$ (611,235)	\$ (2,346,307)	\$ (4,200,362)	\$ (5,426,903)	\$ (5,377,699)	\$ (5,051,942)	\$ (3,950,322)	\$ (3,091,269)	\$ (2,005,967)	\$ (892,006)	\$ 237,004				

(1) Reflects Fuel Tax Recovery Expense of \$10,540 plus ATV charges, plus interest, not included in 2019 - 2020 reconciliation.

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
2020-21 ANNUAL COG RECONCILIATION
SCHEDULE 3: REVENUE BACKUP TO REPORTED COLLECTIONS
August 2020 - October 2021

	<u>Aug-20</u>	<u>Sep-20</u>	<u>Oct-20</u>	<u>Nov-20</u>	<u>Dec-20</u>	<u>Jan-21</u>	<u>Feb-21</u>	<u>Mar-21</u>	<u>Apr-21</u>	<u>May-21</u>	<u>Jun-21</u>	<u>Jul-21</u>	----- Estimated ⁽¹⁾ -----	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Total</u>
Accrued Revenue	\$ 750	\$ 58,413	\$ 91,519	\$ 1,393,390	\$ 573,281	\$ 519,878	\$ (551,300)	\$ (920,779)	\$ (316,069)	\$ (377,411)	\$ (295,234)	\$ (9,813)					
Billed Revenue	\$ 114,383	\$ 238,510	\$ 398,705	\$ 1,473,353	\$ 3,662,766	\$ 4,664,508	\$ 5,290,646	\$ 4,966,366	\$ 2,502,482	\$ 1,417,678	\$ 577,671	\$ 575,285					
Calendarized Revenue	<u>\$ 115,133</u>	<u>\$ 296,923</u>	<u>\$ 490,224</u>	<u>\$ 2,866,742</u>	<u>\$ 4,236,047</u>	<u>\$ 5,184,385</u>	<u>\$ 4,739,347</u>	<u>\$ 4,045,586</u>	<u>\$ 2,186,413</u>	<u>\$ 1,040,267</u>	<u>\$ 282,437</u>	<u>\$ 565,472</u>	<u>\$ 486,225</u>	<u>\$ 529,360</u>	<u>\$ 1,091,684</u>	<u>\$ 28,156,245</u>	

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
2020-21 ANNUAL COG RECONCILIATION
SCHEDULE 4: PURCHASED GAS COSTS
August 2020 - October 2021

-----Estimated⁽¹⁾-----

Commodity Costs	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Total
Citadel Energy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 520,615	\$ -	\$ 529,757	\$ -	\$ -	\$ -	\$ -				\$ 1,050,372
DTE Energy	\$ -	\$ -	\$ 4,127	\$ -	\$ 50,816	\$ 54,195	\$ -	\$ -	\$ -	\$ 40,041	\$ 46,569	\$ 46,489				\$ 242,236
Emera Energy Services Corp.	\$ 138,318	\$ 146,938	\$ -	\$ 357,389	\$ 459,390	\$ 537,322	\$ 1,213,306	\$ 851,263	\$ 769,661	\$ 598,860	\$ 392,823	\$ 111,700				\$ 5,576,969
Repsol	\$ -	\$ -	\$ 70,001	\$ 35,263	\$ 4,391	\$ 56,283	\$ 138,332	\$ 223,237	\$ 208,848	\$ 42,548	\$ 46,448	\$ 44,812				\$ 870,163
Shell	\$ 4,347	\$ -	\$ 20,756	\$ -	\$ 218,166	\$ 390,904	\$ 386,594	\$ 370,884	\$ 319,651	\$ -						\$ 1,711,302
Southwestern	\$ 20,228	\$ 24,699	\$ 39,336	\$ 31,237	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -						\$ 115,499
Xpress	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		\$ 37,692				\$ 37,692
Subtotal - Commodity	\$ 162,893	\$ 171,636	\$ 134,219	\$ 423,889	\$ 732,763	\$ 1,559,319	\$ 1,738,232	\$ 1,975,140	\$ 1,298,160	\$ 681,449	\$ 485,840	\$ 240,692				\$ 9,604,231
Transportation																
Granite	\$ 74	\$ 126	\$ 202	\$ 199	\$ 418	\$ 537	\$ 418	\$ 344	\$ 239	\$ 167	\$ 77	\$ 98				\$ 2,898
Emera	\$ 69	\$ 88	\$ 105	\$ 230	\$ 310	\$ 470	\$ 677	\$ 619	\$ 354	\$ 534	\$ 308	\$ 58				\$ 3,822
Emera Energy Services	\$ -	\$ -	\$ -	\$ -	\$ 833	\$ 1,342	\$ 2,177	\$ 4,269	\$ 1,473	\$ 49	\$ 29					\$ 10,171
Maritimes	\$ -	\$ -	\$ 70	\$ 2,653	\$ 31,276	\$ 11,040	\$ 5,102	\$ 1,258				\$ 170				\$ 51,569
Tennessee	\$ 2,104	\$ 1,951	\$ 2,097	\$ 2,115	\$ 2,322	\$ 2,491	\$ 2,587	\$ 2,303	\$ 1,844	\$ 2,098	\$ 2,128	\$ 2,054				\$ 26,094
Subtotal - Commodity Transportation	\$ 2,247	\$ 2,165	\$ 2,474	\$ 5,197	\$ 35,159	\$ 15,880	\$ 10,961	\$ 8,792	\$ 3,910	\$ 2,848	\$ 2,542	\$ 2,380				\$ 94,554
Commodity Cost Estimates	\$ 169,403	\$ 262,672	\$ 449,643	\$ 767,504	\$ 1,574,848	\$ 1,748,786	\$ 1,983,661	\$ 1,274,326	\$ 683,787	\$ 488,305	\$ 240,436	\$ 293,016				\$ 9,936,386
Commodity Cost Reversals	\$ (124,887)	\$ (169,403)	\$ (262,672)	\$ (449,643)	\$ (767,504)	\$ (1,574,848)	\$ (1,748,786)	\$ (1,983,661)	\$ (1,274,326)	\$ (683,787)	\$ (488,305)	\$ (240,436)				\$ (9,768,258)
Subtotal - Estimates	\$ 44,516	\$ 93,269	\$ 186,971	\$ 317,861	\$ 807,344	\$ 173,938	\$ 234,875	\$ (709,335)	\$ (590,539)	\$ (195,483)	\$ (247,869)	\$ 52,580				\$ 20,397,684
Subtotal - Supply	\$ 209,656	\$ 267,070	\$ 323,665	\$ 746,947	\$ 1,575,265	\$ 1,749,136	\$ 1,984,069	\$ 1,274,597	\$ 711,532	\$ 488,814	\$ 240,513	\$ 295,651				\$ 9,866,914
Withdrawal - Underground Storage	\$ 2,269	\$ 3,687	\$ (5,892)	\$ 234,557	\$ 359,574	\$ 642,651	\$ 604,645	\$ 208,998	\$ 685	\$ (529)	\$ (49)	\$ (131)				\$ 2,050,464
ATV Reconciliation Charges	\$ (3,132)	\$ (2,611)	\$ (7,580)	\$ (27,268)	\$ (74,639)	\$ (94,725)	\$ (24,705)	\$ 9,067	\$ 12,743	\$ -	\$ -	\$ -				\$ (212,850)
Off System Sales	\$ -	\$ -	\$ -	\$ -	\$ (2,936)	\$ -	\$ (205,410)	\$ (1,025,807)	\$ (22,267)	\$ -	\$ -	\$ (9,889)				\$ (1,266,309)
Net OBA Adjustment	\$ 184	\$ (588)	\$ 623	\$ 1,852	\$ (392)	\$ 791	\$ (2,621)	\$ (5,475)	\$ (7,362)	\$ (102)	\$ (24)	\$ (328)				\$ (13,442)
Company Managed	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (151,764)	\$ (200,336)	\$ -	\$ (87,953)	\$ -	\$ -				\$ (440,053)
LNG Withdrawal / Boiloff	\$ 2,841	\$ 3,146	\$ 2,017	\$ 1,161	\$ 2,132	\$ 8,966	\$ 32,062	\$ 16,943	\$ 2,069	\$ 1,772	\$ 1,498	\$ 1,916				\$ 76,523
Supplier Balancing	\$ (72,711)	\$ -	\$ (19,710)	\$ -	\$ (15,065)	\$ -	\$ 76,839	\$ 202,849	\$ -	\$ 1,841	\$ 8,024	\$ 48,543				\$ 230,610
Inventory Finance Charge	\$ 59	\$ 79	\$ 99	\$ 120	\$ 128	\$ 108	\$ 62	\$ 41	\$ 35	\$ 58	\$ 73	\$ 105				\$ 967
Subtotal - Other Commodity	\$ (70,490)	\$ 3,712	\$ (30,442)	\$ 210,421	\$ 268,802	\$ 557,792	\$ 329,109	\$ (793,719)	\$ (14,098)	\$ (84,912)	\$ 9,520	\$ 40,216				\$ 425,911
Sales for Resale Estimates	\$ -	\$ -	\$ -	\$ (72,377)	\$ (82,322)	\$ (300,945)	\$ (1,130,405)	\$ (109,591)	\$ -	\$ -	\$ (9,889)	\$ -				\$ (1,705,530)
Sales for Resale Reversals	\$ -	\$ -	\$ -	\$ -	\$ 72,377	\$ 82,322	\$ 300,945	\$ 1,130,405	\$ 109,591	\$ -	\$ -	\$ 9,889				\$ 1,705,530
Subtotal - Estimates	\$ -	\$ -	\$ -	\$ (72,377)	\$ (9,945)	\$ (218,622)	\$ (829,460)	\$ 1,020,814	\$ 109,591	\$ -	\$ (9,889)	\$ 9,889				\$ -
Total Commodity Costs	\$ 139,166	\$ 270,783	\$ 293,222	\$ 884,990	\$ 1,834,122	\$ 2,088,305	\$ 1,483,717	\$ 1,501,692	\$ 807,025	\$ 403,902	\$ 240,145	\$ 345,756	\$ 434,808	\$ 446,066	\$ 918,281	\$ 12,091,979

(1) Monthly estimates provided in Table 2 of Northern 's August 2021 Monthly Cost of Gas Report, submitted in DG 20-154 on August 19, 2021. Estimates updated for September 7, 2021 NYMEX prices

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
2020-21 ANNUAL COG RECONCILIATION
SCHEDULE 4: PURCHASED GAS COSTS
August 2020 - October 2021

Demand Costs	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	-----Estimated ⁽¹⁾ -----			Total
Pipeline Reservation																
Alberta Northeast	\$ 3,705	\$ 5,577	\$ 3,761	\$ 4,174	\$ 3,542	\$ 3,633	\$ 3,850	\$ 3,290	\$ 3,632	\$ 3,518	\$ 3,977	\$ 4,983				\$ 47,641
Algonquin	\$ 14,212	\$ 14,212	\$ 36,001	\$ 19,388	\$ 19,186	\$ 19,185	\$ 19,172	\$ 147,029	\$ 189,691	\$ 189,784	\$ 189,784	\$ 189,784				\$ 1,047,432
Emera	\$ 275,583	\$ 289,367	\$ 258,980	\$ 256,915	\$ 316,636	\$ 349,666	\$ 428,894	\$ 429,584	\$ 414,581	\$ 447,016	\$ 439,044	\$ 429,653				\$ 4,335,918
Granite State	\$ 144,287	\$ 144,287	\$ 144,287	\$ 280,644	\$ 280,644	\$ 280,644	\$ 280,644	\$ 280,644	\$ 280,644	\$ 179,428	\$ 179,428	\$ 179,428				\$ 2,655,007
Iroquois	\$ 14,390	\$ 14,390	\$ 14,390	\$ 14,390	\$ 14,060	\$ 14,060	\$ 14,060	\$ 14,060	\$ 14,060	\$ 14,060	\$ 14,060	\$ 14,060				\$ 170,041
Maritimes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,769	\$ 41,033	\$ 41,033	\$ 41,033	\$ 41,033				
Portland	\$ 305,455	\$ 305,455	\$ 305,455	\$ 305,455	\$ 390,426	\$ 393,492	\$ 393,492	\$ 384,294	\$ 393,492	\$ 390,426	\$ 393,492	\$ 390,426				\$ 4,351,363
Tennessee	\$ 137,938	\$ 137,938	\$ 137,938	\$ 137,938	\$ 132,065	\$ 132,065	\$ 132,065	\$ 132,065	\$ 132,065	\$ 132,065	\$ 132,065	\$ 132,065				\$ 1,608,270
Texas Eastern	\$ 2,865	\$ 2,879	\$ 2,879	\$ 2,879	\$ 2,813	\$ 2,821	\$ 2,821	\$ 2,787	\$ 2,787	\$ 2,787	\$ 2,787	\$ 2,787				\$ 33,894
Total Pipeline Reservation	\$ 898,435	\$ 914,105	\$ 903,690	\$ 1,021,782	\$ 1,159,373	\$ 1,195,566	\$ 1,274,999	\$ 1,424,523	\$ 1,471,985	\$ 1,400,118	\$ 1,395,671	\$ 1,384,220				\$ 14,444,467
Product Demand																
Excelon	\$ -	\$ -	\$ -	\$ -	\$ 121,618	\$ 121,618	\$ 121,618	\$ 121,618	\$ 121,618	\$ -	\$ -	\$ -				\$ 608,090
Repsol	\$ 335,475	\$ 335,475	\$ 335,475	\$ 335,475	\$ 327,778	\$ 327,778	\$ 327,778	\$ 327,778	\$ 327,778	\$ 327,778	\$ 327,778	\$ 327,778				\$ 3,964,127
Xpress	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36,792	\$ 36,792				
Total Product Demand	\$ 335,475	\$ 335,475	\$ 335,475	\$ 335,475	\$ 449,396	\$ 449,396	\$ 449,396	\$ 449,396	\$ 449,396	\$ 327,778	\$ 364,570	\$ 327,778				\$ 4,609,009
Storage Pipeline Transportation and Demand Reservation																
Emera	\$ 99,021	\$ 99,021	\$ 99,021	\$ 99,021	\$ 96,749	\$ 96,749	\$ 96,749	\$ 96,749	\$ 96,749	\$ 96,749	\$ 96,749	\$ 96,749				\$ 1,170,080
Tennessee	\$ 4,362	\$ 4,362	\$ 4,362	\$ 4,362	\$ 4,169	\$ 4,169	\$ 4,169	\$ 4,169	\$ 4,169	\$ 4,169	\$ 4,169	\$ 4,169				\$ 50,799
Total Storage & Demand Reservation	\$ 103,383	\$ 103,383	\$ 103,383	\$ 103,383	\$ 100,918	\$ 100,918	\$ 100,918	\$ 100,918	\$ 100,918	\$ 100,918	\$ 100,918	\$ 100,918				\$ 1,220,880
Demand Cost Estimates	\$ 1,189,356	\$ 1,194,664	\$ 1,194,681	\$ 1,448,580	\$ 1,458,596	\$ 1,535,362	\$ 1,685,240	\$ 1,751,889	\$ 1,736,554	\$ 1,646,063	\$ 1,639,529	\$ 1,631,891				\$ 18,112,405
Demand Cost Reversals	\$ (1,183,761)	\$ (1,189,356)	\$ (1,194,664)	\$ (1,194,681)	\$ (1,448,580)	\$ (1,458,596)	\$ (1,535,362)	\$ (1,685,240)	\$ (1,751,889)	\$ (1,736,554)	\$ (1,646,063)	\$ (1,639,529)				\$ (17,664,275)
Subtotal	\$ 5,595	\$ 5,308	\$ 17	\$ 253,899	\$ 10,016	\$ 76,766	\$ 149,878	\$ 66,649	\$ (15,335)	\$ (90,492)	\$ (6,534)	\$ (7,638)				\$ 448,130
Capacity Release ⁽²⁾	\$ (523,555)	\$ (525,520)	\$ (288,536)	\$ (510,673)	\$ (630,146)	\$ (586,224)	\$ (611,023)	\$ (615,486)	\$ (815,302)	\$ (720,196)	\$ (716,693)	\$ (710,715)				\$ (7,254,068)
Company Managed	\$ (21,182)	\$ -	\$ (21,333)	\$ -	\$ (29,506)	\$ -	\$ (103,270)	\$ (105,928)	\$ -	\$ (107,651)	\$ -	\$ (24,589)				
Other A&G Allowance	\$ 18,818	\$ 18,818	\$ 18,818	\$ 78,589	\$ 78,589	\$ 78,589	\$ 78,589	\$ 78,589	\$ 78,589	\$ 18,154	\$ 18,154	\$ 18,154				\$ 582,449
Local Production and Storage Allowance	\$ -	\$ -	\$ -	\$ 79,351	\$ 79,351	\$ 79,351	\$ 79,351	\$ 79,351	\$ 79,351	\$ -	\$ -	\$ -				\$ 476,106
Conversion & Re-entry Fees	\$ (42)	\$ (47)	\$ (125)	\$ (86)	\$ (15)	\$ (20)	\$ (28)	\$ (29)	\$ (14)	\$ 828	\$ (1)	\$ (1)				\$ 420
Fuel Tax Recovery	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 578	\$ -	\$ 1,958	\$ 4,845	\$ -	\$ -				\$ 7,381
Outage Replacement Costs	\$ -	\$ -	\$ -	\$ 114,821	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				
Total Indirect Demand Costs	\$ (525,961)	\$ (506,749)	\$ (291,176)	\$ (237,999)	\$ (501,727)	\$ (428,304)	\$ (555,803)	\$ (563,503)	\$ (655,418)	\$ (804,021)	\$ (698,540)	\$ (717,151)				\$ (6,486,351)
Estimates - Cap Release & Comp Managed	\$ (529,578)	\$ (529,578)	\$ (534,357)	\$ (696,371)	\$ (649,758)	\$ (679,092)	\$ (688,053)	\$ (835,663)	\$ (744,006)	\$ (702,081)	\$ (702,081)	\$ (701,918)				\$ (7,992,537)
Reversals - Cap Release & Comp Managed	\$ 526,190	\$ 529,578	\$ 529,578	\$ 534,357	\$ 696,371	\$ 649,758	\$ 679,092	\$ 688,053	\$ 835,663	\$ 744,006	\$ 702,081	\$ 702,081				\$ 7,816,809
Subtotal	\$ (3,388)	\$ -	\$ (4,779)	\$ (162,013)	\$ 46,613	\$ (29,334)	\$ (8,961)	\$ (147,610)	\$ 91,657	\$ 41,925	\$ -	\$ 164				\$ (175,728)
Annual Demand Costs	\$ 813,539	\$ 851,523	\$ 1,046,611	\$ 1,314,528	\$ 1,264,589	\$ 1,365,008	\$ 1,410,427	\$ 1,330,373	\$ 1,443,204	\$ 976,227	\$ 1,156,086	\$ 1,088,291	\$ 1,143,612	\$ 1,143,612	\$ 1,143,612	\$ 17,491,243
Total Gas Costs																
	\$ 952,706	\$ 1,122,305	\$ 1,339,833	\$ 2,199,518	\$ 3,098,711	\$ 3,453,314	\$ 2,894,144	\$ 2,832,065	\$ 2,250,229	\$ 1,380,129	\$ 1,396,231	\$ 1,434,047	\$ 1,578,420	\$ 1,589,679	\$ 2,061,893	\$ 29,583,223
	\$ 813,539	\$ 851,523	\$ 1,046,611	\$ 1,314,528	\$ 1,264,589	\$ 1,365,008	\$ 1,410,427	\$ 1,330,373	\$ 1,441,245	\$ 976,227	\$ 1,156,086	\$ 1,088,291				
	\$ -	\$ (0)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,958	\$ 0	\$ (0)	\$ 0				

(1) Monthly estimates provided in Table 2 of Northern's August 2021 Monthly Cost of Gas Report, submitted in DG 20-154 on August 19, 2021. Estimates updated for September 7, 2021 NYMEX prices

(2) Includes Asset Management Agreement Revenue

REDACTED

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
2020-21 ANNUAL COG RECONCILIATION
COST OF GAS ADJUSTMENT - FORM III, Schedule 4 - UNITS
August 2020 - October 2021

Indicates Confidential Data

Commodity Volumes:	<u>Aug-20</u>	<u>Sep-20</u>	<u>Oct-20</u>	<u>Nov-20</u>	<u>Dec-20</u>	<u>Jan-21</u>	<u>Feb-21</u>	<u>Mar-21</u>	<u>Apr-21</u>	<u>May-21</u>	<u>Jun-21</u>	<u>Jul-21</u>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Total</u>
Citadel Energy																
DTE Energy																
Emera Energy Services Corp.																
Repsol																
Shell																
Southwestern																
Xpress Energy																
Subtotal - Commodity Supply																
Granite																
Emera																
Emera Energy Services																
Maritimes																
Tennessee																
Subtotal - Commodity Transportation																
Commodity Volume Estimates																
Commodity Volume Reversals																
Subtotal - Estimates																
Subtotal - Supply																
Withdrawal - Underground Storage																
ATV Reconciliation Charges																
Off System Sales																
Net OBA Adjustment																
Company Managed																
LNG Withdrawal / Boiloff																
Supplier Balancing																
Inventory Finance Charge																
Subtotal - Other Commodity																
Sales for Resale Estimates																
Sales for Resale Reversals																
Subtotal - Estimates																
Total Commodity Volumes													102,888	104,952	212,494	

(1) Monthly estimates provided in Table 2 of Northern 's August 2021 Monthly Cost of Gas Report, submitted in DG 20-154 on August 19, 2021. Estimates updated for September 7, 2021 NYMEX prices

REDACTED

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
2020-21 ANNUAL COG RECONCILIATION
COST OF GAS ADJUSTMENT - FORM III, Schedule 4 - IN COST PER UNIT
August 2020 - October 2021

Indicates Confidential Data

Commodity Costs per Unit:	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	-----Estimated ⁽¹⁾ -----			Total
	Aug-21	Sep-21	Oct-21													
Citadel																
DTE Energy																
Emera Energy Services Corp.																
Repsol																
Shell																
Southwestern																
Xpress Energy																
Subtotal - Commodity Supply																
Granite																
Emera																
Maritimes																
Tennessee																
Subtotal - Commodity Transportation																
Commodity Cost Estimates																
Commodity Cost Reversals																
Subtotal - Estimates																
Subtotal - Supply																
Withdrawal - Underground Storage																
ATV Reconciliation Charges																
Off System Sales																
Net OBA Adjustment																
Company Managed																
LNG Withdrawal / Boiloff																
Supplier Balancing																
Inventory Finance Charge																
Subtotal - Other Commodity																
Off System Sales Estimates																
Off System Sales Reversals																
Subtotal - Estimates																
Total Commodity Costs per unit																

(1) Monthly estimates provided in Table 2 of Northern 's August 2021 Monthly Cost of Gas Report, submitted in DG 20-154 on August 19, 2021. Estimates updated for September 7, 2021 NYMEX prices

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
2020-21 ANNUAL COG RECONCILIATION
SCHEDULE 5: PURCHASED AND MADE VOLUMES
August 2020 - July 2021

<i>New Hampshire</i>	<u>Aug-20</u>	<u>Sep-20</u>	<u>Oct-20</u>	<u>Nov-20</u>	<u>Dec-20</u>	<u>Jan-21</u>	<u>Feb-21</u>	<u>Mar-21</u>	<u>Apr-21</u>	<u>May-21</u>	<u>Jun-21</u>	<u>Jul-21</u>	<u>Total</u>
Throughput IN													
<i>BTU Factor</i>	1.03	1.028	1.029	1.033	1.033	1.041	1.04	1.033	1.029	1.028	1.028	1.028	
<i>GST Meter Throughput (MCF)</i>	329,115	373,060	543,616	699,749	991,072	1,094,702	1,015,270	886,697	617,597	457,671	342,785	359,580	7,710,914
<i>Salem Meter (MCF)</i>	12,467	14,692	26,192	40,744	67,618	77,841	71,623	55,666	34,687	20,149	13,965	14,528	450,172
<i>GST Meter Throughput (DTH)</i>	338,988	383,506	559,381	722,841	1,023,777	1,139,585	1,055,881	915,958	635,507	470,486	352,383	369,648	7,967,941
<i>Salem Meter (DTH)</i>	12,841	15,103	26,952	42,089	69,849	81,032	74,488	57,503	35,693	20,713	14,356	14,935	465,554
<i>LNG/Propane</i>													-
<i>Total Throughput</i>	351,829	398,609	586,332	764,929	1,093,627	1,220,617	1,130,369	973,461	671,200	491,199	366,739	384,583	8,433,495
Throughput OUT													
<i>Residential Gas</i>													
Charged	31,451	40,551	56,652	129,223	233,549	305,880	342,819	325,375	164,754	108,962	51,370	37,613	1,828,199
Uncharged Current	19,467	18,890	30,360	106,076	160,391	208,113	168,985	100,904	76,526	61,569	25,108	18,971	995,360
Uncharged Prior	(19,236)	(19,467)	(18,890)	(30,360)	(106,076)	(160,391)	(208,113)	(168,985)	(100,904)	(76,526)	(61,569)	(25,108)	(995,625)
Total Residential Gas	31,682	39,974	68,122	204,939	287,864	353,602	303,691	257,294	140,376	94,005	14,909	31,476	1,827,934
Interruptible				-	-	-	-	-	-	-	-	-	-
<i>Commercial/Industrial Gas</i>													
Charged	46,120	63,063	75,428	160,876	270,849	335,203	384,200	357,677	180,780	121,546	65,434	76,744	2,137,920
Uncharged Current	28,546	29,377	40,422	117,409	176,223	221,298	192,828	120,773	87,490	68,679	31,981	38,707	1,153,733
Uncharged Prior	(26,280)	(28,546)	(29,377)	(40,422)	(117,409)	(176,223)	(221,298)	(192,828)	(120,773)	(87,490)	(68,679)	(31,981)	(1,141,306)
Total C/I Gas	48,386	63,894	86,473	237,863	329,663	380,278	355,730	285,622	147,497	102,735	28,736	83,470	2,150,347
<i>Transportation</i>													
Charged	253,143	283,307	320,339	359,833	424,328	475,023	471,219	481,163	375,026	344,405	279,262	285,167	4,352,215
Uncharged Current	100,616	88,390	115,685	170,836	200,965	230,672	193,612	146,957	142,266	132,821	88,819	93,246	1,704,885
Uncharged Prior	(84,128)	(100,616)	(88,390)	(115,685)	(170,836)	(200,965)	(230,672)	(193,612)	(146,957)	(142,266)	(132,821)	(88,819)	(1,695,767)
Total Transportation	269,631	271,081	347,634	414,984	454,457	504,730	434,159	434,508	370,335	334,960	235,260	289,594	4,361,333
Company Use	89	118	61	98	171	263	328	327	162	99	78	99	1,894
Total Throughput OUT	349,788	375,067	502,290	857,884	1,072,155	1,238,873	1,093,908	977,751	658,370	531,799	278,983	404,639	8,341,508
Total Throughput IN	351,829	398,609	586,332	764,929	1,093,627	1,220,617	1,130,369	973,461	671,200	491,199	366,739	384,583	8,433,495
Difference IN/OUT	2,041	23,542	84,043	(92,955)	21,472	(18,256)	36,461	(4,290)	12,831	(40,600)	87,756	(20,056)	91,987
%													1.09%

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
DEFERRED WORKING CAPITAL ALLOWANCE ON PURCHASED GAS COSTS
August 2020 - October 2021

ANNUAL BALANCE SEASON - Acct 173

	<u>BEGINNING</u> <u>BALANCE</u>	<u>WORKING CAP</u> <u>ALLOWANCE (1)</u>	<u>WORKING CAP</u> <u>PERCENTAGE</u>	<u>WORKING CAP</u> <u>COLLECTIONS</u>	<u>WORKING CAP</u> <u>DEFERRED</u>	<u>ENDING</u> <u>BALANCE</u>	<u>AVE MONTHLY</u> <u>BALANCE</u>	<u>INTEREST</u> <u>RATE</u>	<u>INTEREST</u>	<u>ENDING BAL</u> <u>W/ INTEREST</u>
	A	B	C	D	E = B + D	F = A + E	G = (A + F) / 2	H	I = G * (H / 12)	K = F + I + J
August 2020	\$ (44,484)									
Adjustment	\$ 197									
August 2020	\$ (44,287)	850	0.0892%	48	898	(43,389)	(43,838)	3.25%	(119)	(43,508)
September	\$ (43,508)	1,001	0.0892%	64	1,065	(42,442)	(42,975)	3.25%	(116)	(42,559)
October	\$ (42,559)	1,195	0.0892%	120	1,315	(41,244)	(41,901)	3.25%	(113)	(41,358)
November	\$ (41,358)	1,962	0.0892%	1,469	3,431	(37,927)	(39,642)	3.25%	(107)	(38,034)
December	\$ (38,034)	2,764	0.0892%	2,330	5,095	(32,940)	(35,487)	3.25%	(96)	(33,036)
January 2021	\$ (33,036)	3,080	0.0892%	2,854	5,935	(27,101)	(30,068)	3.25%	(81)	(27,182)
February	\$ (27,182)	2,582	0.0892%	2,609	5,191	(21,992)	(24,587)	3.25%	(67)	(22,058)
March	\$ (22,058)	2,526	0.0892%	2,228	4,754	(17,304)	(19,681)	3.25%	(53)	(17,357)
April	\$ (17,357)	2,007	0.0892%	1,204	3,211	(14,146)	(15,752)	3.25%	(43)	(14,189)
May	\$ (14,189)	1,231	0.0892%	1,467	2,698	(11,491)	(12,840)	3.25%	(35)	(11,526)
June	\$ (11,526)	1,245	0.0892%	411	1,657	(9,869)	(10,697)	3.25%	(29)	(9,898)
July	\$ (9,898)	1,279	0.0892%	761	2,040	(7,858)	(8,878)	3.25%	(24)	(7,882)
Estimated August	\$ (7,882)	725	0.0892%	(500)	225	(7,656)	(7,769)	3.25%	(21)	(7,677)
Estimated September	\$ (7,677)	733	0.0892%	(500)	233	(7,445)	(7,561)	3.25%	(20)	(7,465)
Estimated October	\$ (7,465)	1,030	0.0892%	(850)	180	(7,285)	(7,375)	3.25%	(20)	(7,305)

(1) Working Capital Allowance calculated by taking monthly Total Gas Costs from Schedule 4, Page 2, and multiplying by (10.02/365)* prime interest rate.

Winter Season Sales Percentage	79.87%
Summer Season Sales Percentage	20.13%
Reconciliation Allocated to Winter Season	\$ (5,834)
Reconciliation Allocated to Summer Season	\$ (1,470)

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
BAD DEBT EXPENSE - CALCULATION OF COLLECTION ALLOWANCE
August 2020 - October 2021

ANNUAL BALANCE- Acct 173

	<u>BEGINNING BALANCE</u>	<u>ACUTAL BAD DEBT</u>	<u>BAD DEBT COLLECTIONS</u>	<u>DEFERRED BALANCE</u>	<u>ENDING BALANCE</u>	<u>AVE MO BALANCE</u>	<u>INTEREST RATE</u>	<u>INTEREST</u>	<u>END BAL W/ INTEREST</u>
	A	B	C	D = B + C	E = A + D	F = (A + E) / 2	G	H = (F * G) / 12	J = E + H + I
August 2020	(\$24,891)	6,359	(1,232)	5,127	(19,764)	(22,328)	3.25%	(60)	(19,825)
September	(\$19,825)	12,905	(1,677)	11,229	(8,596)	(14,210)	3.25%	(38)	(8,635)
October	(\$8,635)	3,830	(2,582)	1,248	(7,386)	(8,010)	3.25%	(22)	(7,408)
November	(\$7,408)	4,903	(17,172)	(12,269)	(19,677)	(13,543)	3.25%	(37)	(19,714)
December	(\$19,714)	10,407	(25,638)	(15,231)	(34,945)	(27,329)	3.25%	(74)	(35,019)
January 2021	(\$35,019)	12,015	(31,354)	(19,339)	(54,358)	(44,688)	3.25%	(121)	(54,479)
February	(\$54,479)	2,685	(28,673)	(25,988)	(80,467)	(67,473)	3.25%	(183)	(80,649)
March	(\$80,649)	5,854	(24,514)	(18,660)	(99,310)	(89,980)	3.25%	(244)	(99,554)
April	(\$99,554)	4,358	(13,290)	(8,932)	(108,486)	(104,020)	3.25%	(282)	(108,768)
May	(\$108,768)	734	(3,422)	(2,688)	(111,456)	(110,112)	3.25%	(298)	(111,754)
June	(\$111,754)	9,403	(995)	8,408	(103,346)	(107,550)	3.25%	(291)	(103,637)
July	(\$103,637)	9,523	(2,268)	7,255	(96,382)	(100,010)	3.25%	(271)	(96,653)
Estimated August	(\$96,653)	10,000	(850)	9,150	(87,503)	(92,078)	3.25%	(249)	(87,753)
Estimated September	(\$87,753)	10,000	(875)	9,125	(78,628)	(83,190)	3.25%	(225)	(78,853)
Estimated October	(\$78,853)	2,000	(500)	1,500	(77,353)	(78,103)	3.25%	(212)	(77,564)

Winter Season Sales Percentage 79.87%
Summer Season Sales Percentage 20.13%

Reconciliation Allocated to Winter Season \$ (61,950)
Reconciliation Allocated to Summer Season \$ (15,614)

Northern Utilities, Inc. - New Hampshire Division
Environmental Response Costs
May 2020 - October 2021

		Beginning Balance	Firm Sales and Transportation (therms)	ERC Rate Recoveries /Passback	Current ERC Recoveries/ Passbacks	Ending Balance
May 2020	(act)	\$ 130,988	4,861,662	\$ 0.0057	\$ 27,710	\$ 103,277.64
June 2020	(act)	\$ 103,278	3,038,865	\$ 0.0057	\$ 17,331	\$ 85,947.07
July 2020	(act)	\$ 85,947	2,540,626	\$ 0.0057	\$ 14,489	\$ 71,457.96
August 2020	(act)	\$ 71,458	2,401,297	\$ 0.0057	\$ 13,698	\$ 57,759.86
September 2020	(act)	\$ 57,760	2,933,578	\$ 0.0057	\$ 16,730	\$ 41,029.68
October 2020	(act)	\$ 41,030	3,479,470	\$ 0.0057	\$ 19,863	\$ 21,166.39
November 2020	(act)	\$ 439,696 ⁽¹⁾	5,519,681	\$ 0.0059 ⁽²⁾	\$ 32,902	\$ 406,794.08
December 2020	(act)	\$ 406,794	8,367,336	\$ 0.0061	\$ 51,043	\$ 355,750.77
January 2021	(act)	\$ 355,751	10,114,055	\$ 0.0061	\$ 61,701	\$ 294,050.20
February 2021	(act)	\$ 294,050	11,010,433	\$ 0.0061	\$ 67,167	\$ 226,883.46
March 2021	(act)	\$ 226,883	10,551,678	\$ 0.0061	\$ 64,367	\$ 162,516.12
April 2021	(act)	\$ 162,516	6,201,510	\$ 0.0061	\$ 37,834	\$ 124,682.50
May 2021	(act)	\$ 124,683	4,655,705	\$ 0.0061	\$ 28,409	\$ 96,273.40
June 2021	(act)	\$ 96,273	2,985,287	\$ 0.0061	\$ 18,225	\$ 78,048.39
July 2021	(act)	\$ 78,048	2,992,333	\$ 0.0061	\$ 18,264	\$ 59,784.48
August 2021	(est)	\$ 59,784	2,728,710	\$ 0.0061	\$ 16,645	\$ 43,139
September 2021	(est)	\$ 43,139	2,821,820	\$ 0.0061	\$ 17,213	\$ 25,926
October 2021	(est)	\$ 25,926	3,685,223	\$ 0.0061	\$ 22,480	\$ 3,446

(1) November Beginning Balance includes \$421,540 amortization from all prior years at 1/7 of annual costs.
(See Section 4.7 of Tariff.)

(2) November Current ERC Recoveries/Passbacks reflect an Average ERC Rate based on actual Firm Sales and Transportation (therms) at \$0.0057 and actual Firm Sales and Transportation (therms) at \$0.0060.

**NORTHERN UTILITIES
NEW HAMPSHIRE DIVISION
RLIARA Reconciliation
May 2020 - October 2021**

		<u>Beginning Balance</u>	<u>Program Costs</u>	<u>Regulatory Assessments</u>	<u>RLIARA Recoveries</u>	<u>Ending Balance</u>	<u>Average Monthly Balance</u>	<u>Interest Rate</u>	<u>Interest</u>	<u>Ending Balance w/Interest</u>
		A	B	C	D	E = A+B+C-D	F = (A+E)/2	G	H = F*(G/12)	I = E+H
May 2020	Actual	\$ (86,723)	\$ 24,284	\$ 6,013	\$ 17,501	\$ (73,928)	\$ (80,326)	4.75%	\$ (318)	\$ (74,246)
June 2020	Actual	\$ (74,246)	\$ 18,438	\$ 6,013	\$ 10,934	\$ (60,729)	\$ (67,487)	4.75%	\$ (267)	\$ (60,996)
July 2020	Actual	\$ (60,996)	\$ 12,176	\$ 6,013	\$ 9,142	\$ (51,948)	\$ (56,472)	3.25%	\$ (153)	\$ (52,101)
August 2020	Actual	\$ (52,101)	\$ 11,381	\$ 6,013	\$ 8,638	\$ (43,345)	\$ (47,723)	3.25%	\$ (129)	\$ (43,474)
September 2020	Actual	\$ (43,474)	\$ 11,506	\$ (10,558)	\$ 10,555	\$ (53,081)	\$ (48,278)	3.25%	\$ (131)	\$ (53,212)
October 2020	Actual	\$ (53,212)	\$ 12,912	\$ 6,893	\$ 12,568	\$ (45,975)	\$ (49,594)	3.25%	\$ (134)	\$ (46,110)
November 2020	Actual	\$ (46,110)	\$ 21,680	\$ 6,893	\$ 22,745	\$ (40,282)	\$ (43,196)	3.25%	\$ (117)	\$ (40,399)
December 2020	Actual	\$ (40,399)	\$ 39,553	\$ 6,893	\$ 36,817	\$ (30,770)	\$ (35,585)	3.25%	\$ (96)	\$ (30,867)
January 2021	Actual	\$ (30,867)	\$ 48,032	\$ 6,893	\$ 44,508	\$ (20,449)	\$ (25,658)	3.25%	\$ (69)	\$ (20,518)
February 2021	Actual	\$ (20,518)	\$ 57,968	\$ 6,893	\$ 48,446	\$ (4,103)	\$ (12,311)	3.25%	\$ (33)	\$ (4,136)
March 2021	Actual	\$ (4,136)	\$ 70,145	\$ 6,893	\$ 46,428	\$ 26,474	\$ 11,169	3.25%	\$ 30	\$ 26,505
April 2021	Actual	\$ 26,505	\$ 40,179	\$ 6,893	\$ 27,287	\$ 46,289	\$ 36,397	3.25%	\$ 99	\$ 46,388
May 2021	Actual	\$ 46,388	\$ 16,330	\$ 6,893	\$ 20,483	\$ 49,127	\$ 47,757	3.25%	\$ 129	\$ 49,257
June 2021	Actual	\$ 49,257	\$ 756	\$ 6,893	\$ 13,128	\$ 43,777	\$ 46,517	3.25%	\$ 126	\$ 43,903
July 2021	Actual	\$ 43,903	\$ -	\$ 6,893	\$ 13,163	\$ 37,633	\$ 40,768	3.25%	\$ 110	\$ 37,744
August 2021	Est.	\$ 37,744	\$ -	\$ 5,292	\$ 12,006	\$ 31,029	\$ 34,386	3.25%	\$ 93	\$ 31,122
September 2021	Est.	\$ 31,122	\$ -	\$ 5,292	\$ 12,416	\$ 23,999	\$ 27,561	3.25%	\$ 75	\$ 24,073
October 2021	Est.	\$ 24,073	\$ -	\$ 5,292	\$ 16,215	\$ 13,150	\$ 18,612	3.25%	\$ 50	\$ 13,201

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
SALES VARIANCE ANALYSIS

	<u>Aug-20</u>	<u>Sep-20</u>	<u>Oct-20</u>	<u>Nov-20</u>	<u>Dec-20</u>	<u>Jan-21</u>	<u>Feb-21</u>	<u>Mar-21</u>	<u>Apr-21</u>	<u>May-21</u>	<u>Jun-21</u>	<u>Jul-21</u>	<u>TOTAL</u>
Forecast Bill Month Sales	104,573	107,393	132,485	294,521	541,934	702,409	817,468	680,722	452,687	265,253	148,939	102,281	4,350,666
Actual Sales	77,571	103,615	132,079	290,099	504,398	641,083	727,019	683,052	345,533	230,509	116,804	114,357	3,966,118
Difference	(27,002)	(3,779)	(406)	(4,422)	(37,536)	(61,326)	13,698	2,330	(107,154)	(34,745)	(32,135)	12,075	(384,548)
Normal Bill Month Actual Sales	77,571	103,615	132,079	332,383	546,059	701,880	777,437	599,273	410,072	230,509	116,804	114,357	4,142,038
Actual Sales	77,571	103,615	132,079	290,099	504,398	641,083	727,019	683,052	345,533	230,509	116,804	114,357	3,966,118
Weather Variance	-	-	-	42,284	41,662	60,797	50,418	(83,780)	64,539	-	-	-	175,920
Total Variance Excluding Weather (excl weather effect)	(27,002)	(3,779)	(406)	37,862	4,125	(529)	64,116	(81,449)	(42,615)	(34,745)	(32,135)	12,075	(208,628)
Variance-difference due to meter count													3,044
-difference in load pattern													(447,801)
Total Sales Variance													(444,757)

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION
SALES VARIANCE ANALYSIS
August 2019 - July 2020

	<u>NORMAL MMBtu</u>			<u>METERS</u>				
	2020-21 Forecast	2020-21 Actual	Difference	2020-21 Forecast	2020-21 Actual	Difference		
Res Heat	1,995,194	1,804,018	(191,176)	315,704	322,386	6,682		
Res General	23,534	24,182	648	15,048	15,724	676		
Total Res	2,018,728	1,828,199	(190,528)	330,752	338,110	7,358		
G-40	960,465	862,510	(97,956)	54,544	55,858	1,314		
G-50	170,442	134,879	(35,562)	8,901	9,071	170		
G-41	721,741	692,124	(29,617)	5,089	4,883	(206)		
G-51	239,930	229,440	(10,490)	1,897	1,747	(150)		
G-42	106,561	141,129	34,568	125	126	1		
G-52	193,009	77,838	(115,171)	30	27	(3)		
Total C & I	2,392,148	2,137,919	(254,229)	70,586	71,712	1,126		
Total Company	4,410,875	3,966,119	(444,757)	401,338	409,822	8,484		

	<u>NORMAL AVERAGE USE</u>			<u>Change in Sales Due to</u>		<u>Total Chg</u>	<u>%</u>
	2020-21 Forecast	2020-21 Actual	Difference	<u>Change In:</u>	<u>Meter Count Load Pattern</u>		
Res Heat	6.32	5.60	(0.72)	42,229	(233,405)	(191,176)	-9.58%
Res General	1.56	1.54	(0.03)	1,057	(409)	648	2.75%
Total Res	7.88	7.13	(0.75)	43,286	(233,815)	(190,528)	-9.44%
G-40	17.61	15.44	(2.17)	23,138	(121,094)	(97,956)	-10.20%
G-50	19.15	14.87	(4.28)	3,255	(38,818)	(35,562)	-20.86%
G-41	141.82	141.74	(0.08)	(29,216)	(402)	(29,617)	-4.10%
G-51	126.48	131.33	4.85	(18,972)	8,481	(10,490)	-4.37%
G-42	852.48	1,120.07	267.59	852	33,716	34,568	32.44%
G-52	6,433.65	2,882.89	(3,550.76)	(19,301)	(95,870)	(115,171)	-59.67%
Total C & I	33.89	29.81	(4.08)	(40,242)	(213,986)	(254,229)	-10.63%
Total Company	10.99	9.68	(1.31)	3,044	(447,801)	(444,757)	-10.08%

Northern Utilities Inc.
Calculation of Bad Debt Expense

1	Actual Bad Debt Expense 12 Months Ended July 31, 2021			
2				
3	Total		\$ 458,671	Company Analysis
4	Distribution		\$ 284,549	Company Analysis
5	Distribution (%)		62.04%	LN 4 / LN 3
6	Non-Distribution		\$ 174,123	Company Analysis
7	Non-Distribution(%)		37.96%	LN 6 / LN 3
8				
9	Winter Demand Cost %		90.43%	Attachment NUI-CAK-2
10	Summer Demand Cost %		9.57%	Attachment NUI-CAK-2
11				
12	Forecast Bad Debt Expense 12 Months Ended December 31, 2022			
13				
14	Annual Total		\$ 400,000	Company Forecast
15	Annual Non-Distribution		\$ 151,850	LN 14 * LN 7
16	Winter Non-Distribution		\$ 137,320	LN 15 * LN 9
17	Summer Non-Distribution		\$ 14,529	LN 15 * LN 10

Northern Utilities
NEW HAMPSHIRE (Over) / Undercollection Analysis, Balances and Interest Calculation

Sales Revenues	Oct-21	Winter						Summer					
		(Forecast) Nov-21	(Forecast) Dec-21	(Forecast) Jan-22	(Forecast) Feb-22	(Forecast) Mar-22	(Forecast) Apr-22	(Forecast) May-22	(Forecast) Jun-22	(Forecast) Jul-22	(Forecast) Aug-22	(Forecast) Sep-22	(Forecast) Oct-22
Volumes													
Residential Heat & Non Heat		2,235,193	3,205,961	3,752,145	3,220,112	2,745,230	1,615,855	791,744	517,185	437,049	443,237	491,840	992,084
Sales HLF Classes		368,357	503,160	586,466	509,647	444,531	280,756	418,861	285,038	250,296	254,950	275,778	512,036
Sales LLF Classes		2,109,633	3,011,324	3,541,686	3,044,843	2,604,500	1,559,929	697,006	455,024	386,854	392,235	440,500	865,314
Total		4,713,183	6,720,446	7,880,297	6,774,602	5,794,261	3,456,540	1,907,611	1,257,246	1,074,199	1,090,422	1,208,118	2,369,434
Rates													
Residential Heat & Non Heat CGA		\$ 0.9392	\$ 0.9392	\$ 0.9392	\$ 0.9392	\$ 0.9392	\$ 0.9392	\$ 0.5176	\$ 0.5176	\$ 0.5176	\$ 0.5176	\$ 0.5176	\$ 0.5176
Sales HLF Classes CGA		\$ 0.8453	\$ 0.8453	\$ 0.8453	\$ 0.8453	\$ 0.8453	\$ 0.8453	\$ 0.4740	\$ 0.4740	\$ 0.4740	\$ 0.4740	\$ 0.4740	\$ 0.4740
Sales LLF Classes CGA		\$ 0.9551	\$ 0.9551	\$ 0.9551	\$ 0.9551	\$ 0.9551	\$ 0.9551	\$ 0.5445	\$ 0.5445	\$ 0.5445	\$ 0.5445	\$ 0.5445	\$ 0.5445
Revenues													
Residential Heat & Non Heat		\$ (2,099,293)	\$ (3,011,039)	\$ (3,524,015)	\$ (3,024,329)	\$ (2,578,320)	\$ (1,517,611)	\$ (409,807)	\$ (267,695)	\$ (226,216)	\$ (229,419)	\$ (254,576)	\$ (513,503)
Sales HLF Classes		\$ (311,373)	\$ (425,321)	\$ (495,740)	\$ (430,805)	\$ (375,762)	\$ (237,323)	\$ (198,540)	\$ (135,108)	\$ (118,640)	\$ (120,846)	\$ (130,719)	\$ (242,705)
Sales LLF Classes		\$ (2,014,910)	\$ (2,876,116)	\$ (3,382,664)	\$ (2,908,129)	\$ (2,487,558)	\$ (1,489,888)	\$ (379,520)	\$ (247,760)	\$ (210,642)	\$ (213,572)	\$ (239,852)	\$ (471,164)
Total Sales		\$ (4,425,576)	\$ (6,312,476)	\$ (7,402,419)	\$ (6,363,263)	\$ (5,441,640)	\$ (3,244,823)	\$ (987,867)	\$ (650,563)	\$ (555,499)	\$ (563,838)	\$ (625,147)	\$ (1,227,371)

Gas Costs and Credits	Oct-21	Winter						Summer					
		(Forecast) Nov-21	(Forecast) Dec-21	(Forecast) Jan-22	(Forecast) Feb-22	(Forecast) Mar-22	(Forecast) Apr-22	(Forecast) May-22	(Forecast) Jun-22	(Forecast) Jul-22	(Forecast) Aug-22	(Forecast) Sep-22	(Forecast) Oct-22
Demand Costs (net of Capacity Assignment)													
Pipeline		\$ 455,451	\$ 455,451	\$ 455,451	\$ 455,451	\$ 455,451	\$ 455,451	\$ 455,451	\$ 455,451	\$ 455,451	\$ 455,451	\$ 455,451	\$ 455,451
Storage		\$ 644,421	\$ 644,421	\$ 644,421	\$ 644,421	\$ 644,421	\$ 644,421	\$ 644,421	\$ 644,421	\$ 644,421	\$ 644,421	\$ 644,421	\$ 644,421
On-system Peaking		\$ 208,007	\$ 208,007	\$ 208,007	\$ 208,007	\$ 208,007	\$ 97,714	\$ 16,975	\$ 16,975	\$ 16,975	\$ 16,975	\$ 16,975	\$ 16,975
Off-System Peaking		\$ 312,646	\$ 312,646	\$ 312,646	\$ 312,646	\$ 312,646	\$ 312,646	\$ 312,646	\$ 312,646	\$ 312,646	\$ 312,646	\$ 312,646	\$ 312,646
Total Demand Costs		\$ 1,620,524	\$ 1,620,524	\$ 1,620,524	\$ 1,620,524	\$ 1,620,524	\$ 1,510,232	\$ 1,429,493	\$ 1,429,493	\$ 1,429,493	\$ 1,429,493	\$ 1,429,493	\$ 1,429,493
Asset Management and Capacity Release													
NUI AMA Revenue		\$ (810,930)	\$ (826,470)	\$ (826,470)	\$ (826,470)	\$ (826,470)	\$ (826,470)	\$ (826,470)	\$ (826,470)	\$ (826,470)	\$ (826,470)	\$ (826,470)	\$ (826,470)
NUI Capacity Release							\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
NUI AMA Rev & Cap. Release Subtotal													
NH AMA Revenue		\$ (333,866)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)
NH Capacity Release													
NH Total Asset Management and Capacity Release		\$ (333,866)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)	\$ (340,264)
Outage Replacement		\$ 7,067	\$ 7,067	\$ 7,067	\$ 7,067	\$ 7,067	\$ 7,067	\$ 328	\$ 328	\$ 328	\$ 328	\$ 328	\$ 328
Re-entry Rate & Conversion Rate Revenue		\$ (1,000)	\$ (1,000)	\$ (1,000)	\$ (1,000)	\$ (1,000)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Demand Costs		\$ 1,292,725	\$ 1,286,327	\$ 1,286,327	\$ 1,286,327	\$ 1,286,327	\$ 1,177,035	\$ 1,089,556	\$ 1,089,556	\$ 1,089,556	\$ 1,089,556	\$ 1,089,556	\$ 1,089,556
NUI Commodity Costs													
NUI Total Pipeline Volumes		982,127	978,933	926,892	846,586	1,023,092	1,103,596	623,919	427,539	395,807	401,078	426,093	718,859
Pipeline Costs Modeled in Sendout™		\$ 5,248,530	\$ 5,735,184	\$ 6,062,675	\$ 5,455,995	\$ 5,436,340	\$ 4,220,796	\$ 2,197,031	\$ 1,475,856	\$ 1,373,084	\$ 1,382,979	\$ 1,410,783	\$ 2,512,274
NYMEX Price Used for Forecast		\$ 5.3050	\$ 5.3980	\$ 5.4650	\$ 5.3700	\$ 5.0130	\$ 3.9390	\$ 3.8100	\$ 3.8390	\$ 3.8710	\$ 3.8790	\$ 3.8630	\$ 3.8900
NYMEX Price Used for Update		\$ 5.3050	\$ 5.3980	\$ 5.4650	\$ 5.3700	\$ 5.0130	\$ 3.9390	\$ 3.8100	\$ 3.8390	\$ 3.8710	\$ 3.8790	\$ 3.8630	\$ 3.8900
Increase/(Decrease) NYMEX Price		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Increase/(Decrease) in Pipeline Costs		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Updated Pipeline Costs		\$ 5,248,530	\$ 5,735,184	\$ 6,062,675	\$ 5,455,995	\$ 5,436,340	\$ 4,220,796	\$ 2,197,031	\$ 1,475,856	\$ 1,373,084	\$ 1,382,979	\$ 1,410,783	\$ 2,512,274
New Hampshire Allocated Percentage		36.21%	36.93%	36.99%	36.38%	34.75%	31.67%	30.87%	29.65%	27.35%	27.40%	28.59%	33.29%
NH Updated Pipeline Costs		\$ 1,900,723	\$ 2,118,268	\$ 2,242,311	\$ 1,984,934	\$ 1,889,389	\$ 1,336,543	\$ 678,216	\$ 437,649	\$ 375,599	\$ 378,996	\$ 403,363	\$ 836,389
NH Peaking Volumes													
NH Peaking Costs Modeled in Sendout													
Change in NYMEX Price													
Change in Peaking Costs													
NH Updated Peaking Costs													
NH Commodity Costs													
Pipeline		\$ 1,900,723	\$ 2,118,268	\$ 2,242,311	\$ 1,984,934	\$ 1,889,389	\$ 1,336,543	\$ 678,216	\$ 437,649	\$ 375,599	\$ 378,996	\$ 403,363	\$ 836,389
Storage		\$ 378,185	\$ 836,645	\$ 933,716	\$ 983,140	\$ 649,063	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Peaking		\$ 3,450	\$ 772,446	\$ 1,684,032	\$ 1,042,411	\$ 447,024	\$ 3,237	\$ 3,258	\$ 3,290	\$ 3,136	\$ 3,142	\$ 3,847	\$ 4,795
Total Commodity Costs		\$ 2,282,359	\$ 3,727,358	\$ 4,860,059	\$ 4,010,484	\$ 2,985,476	\$ 1,339,779	\$ 681,474	\$ 440,939	\$ 378,735	\$ 382,138	\$ 407,210	\$ 841,184
Inventory Finance Charge		\$ 174	\$ 268	\$ 323	\$ 275	\$ 224	\$ 114	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Anticipated Direct Cost of Gas		\$ 3,575,258	\$ 5,013,954	\$ 6,146,710	\$ 5,297,087	\$ 4,272,028	\$ 2,516,929	\$ 1,771,030	\$ 1,530,495	\$ 1,468,291	\$ 1,471,694	\$ 1,496,767	\$ 1,930,741

Northern Utilities
NEW HAMPSHIRE (Over) / Undercollection Analysis

Sales Revenues				
Volumes	Winter	Summer	Prior Period	Total
Residential Heat & Non Heat				20,447,634
Sales HLF Classes				4,689,876
Sales LLF Classes				19,108,849
Total	35,339,329	8,907,030		44,246,359
Rates				
Residential Heat & Non Heat CGA				
Sales HLF Classes CGA				
Sales LLF Classes CGA				
Revenues				
Residential Heat & Non Heat				\$ (17,655,823)
Sales HLF Classes				\$ (3,222,882)
Sales LLF Classes				\$ (16,921,776)
Total Sales	\$ (33,190,196)	\$ (4,610,285)		\$ (37,800,481)
Gas Costs and Credits				
				Total
Demand Costs (net of Capacity Assignment)				
Pipeline	\$ 2,732,703	\$ 2,732,703		\$ 5,465,407
Storage	\$ 3,866,525	\$ 3,866,525		\$ 7,733,050
On-system Peaking	\$ 1,137,749	\$ 101,852		\$ 1,239,601
Off-System Peaking	\$ 1,875,877	\$ 1,875,877		\$ 3,751,755
Total Demand Costs	\$ 9,612,854	\$ 8,576,958		\$ 18,189,812
Asset Management and Capacity Release				
NUI AMA Revenue				\$ (9,902,100)
NUI Capacity Release				\$ -
NUI AMA Rev & Cap. Release Subtotal				\$ -
NH AMA Revenue				\$ (4,076,771)
NH Capacity Release				\$ -
NH Total Asset Management and Capacity Release		\$ -	\$ -	\$ (4,076,771)
Outage Replacement	\$ 42,402	\$ 1,965		\$ 44,367
Re-entry Rate & Conversion Rate Revenue	\$ (5,000)	\$ -		\$ (5,000)
Net Demand Costs	\$ 7,615,070	\$ 6,537,339		\$ 14,152,408
NUI Commodity Costs				
NUI Total Pipeline Volumes				8,854,520
Pipeline Costs Modeled in Sendout™				\$ 42,511,526
NYMEX Price Used for Forecast				
NYMEX Price Used for Update				
Increase/(Decrease) NYMEX Price				
Increase/(Decrease) in Pipeline Costs				
Updated Pipeline Costs				
New Hampshire Allocated Percentage				
NH Updated Pipeline Costs				\$ 14,582,381
NH Peaking Volumes				
NH Peaking Costs Modeled in Sendout				
Change in NYMEX Price				
Change in Peaking Costs				
NH Updated Peaking Costs				\$ -
NH Commodity Costs				
Pipeline				\$ 14,582,381
Storage				\$ 3,780,749
Peaking				\$ 3,974,066
Total Commodity Costs	\$ 19,205,516	\$ 3,131,680		\$ 22,337,197
Inventory Finance Charge	\$ 1,378	\$ -		\$ 1,378
Total Anticipated Direct Cost of Gas	\$ 26,821,965	\$ 9,669,019		\$ 36,490,984

Northern Utilities
NEW HAMPSHIRE (Over) / Undercollection Analysis, Balances and Interest Calculation

	Oct-21	Winter						Summer					
		(Forecast) Nov-21	(Forecast) Dec-21	(Forecast) Jan-22	(Forecast) Feb-22	(Forecast) Mar-22	(Forecast) Apr-22	(Forecast) May-22	(Forecast) Jun-22	(Forecast) Jul-22	(Forecast) Aug-22	(Forecast) Sep-22	(Forecast) Oct-22
Working Capital													
Total Anticipated Direct Cost of Gas		\$ 3,575,258	\$ 5,013,954	\$ 6,146,710	\$ 5,297,087	\$ 4,272,028	\$ 2,516,929	\$ 1,771,030	\$ 1,530,495	\$ 1,468,291	\$ 1,471,694	\$ 1,496,767	\$ 1,930,741
Working Capital Percentage		0.0892%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%	0.09%
Working Capital Allowance		\$ 3,189	\$ 4,472	\$ 5,483	\$ 4,725	\$ 3,811	\$ 2,245	\$ 1,580	\$ 1,365	\$ 1,310	\$ 1,313	\$ 1,335	\$ 1,722
Beginning Period Working Capital Balance		\$ (7,305)	\$ (4,131)	\$ 336	\$ 5,819	\$ 10,575	\$ 14,419	\$ 16,706	\$ 18,334	\$ 19,750	\$ 21,115	\$ 22,487	\$ 23,885
End of Period Working Capital Allowance		\$ (4,116)	\$ 341	\$ 5,819	\$ 10,553	\$ 14,385	\$ 16,664	\$ 18,286	\$ 19,699	\$ 21,060	\$ 22,428	\$ 23,822	\$ 25,607
Interest		\$ (15)	\$ (5)	\$ 8	\$ 22	\$ 34	\$ 42	\$ 47	\$ 52	\$ 55	\$ 59	\$ 63	\$ 67
End of period with Interest	\$ (7,305)	\$ (4,131)	\$ 336	\$ 5,828	\$ 10,575	\$ 14,419	\$ 16,706	\$ 18,334	\$ 19,750	\$ 21,115	\$ 22,487	\$ 23,885	\$ 25,674
Bad Debt													
Projected Bad Debt	\$ -	\$ 22,886.74	\$ 22,886.74	\$ 22,886.74	\$ 22,886.74	\$ 22,886.74	\$ 22,886.74	\$ 2,421.54	\$ 2,421.54	\$ 2,421.54	\$ 2,421.54	\$ 2,421.54	\$ 2,421.54
Beginning Period Bad Debt Balance		\$ (77,564)	\$ (54,857)	\$ (32,088)	\$ (9,257)	\$ 13,636	\$ 36,591	\$ 59,607	\$ 62,194	\$ 64,787	\$ 67,387	\$ 69,995	\$ 72,609
End of Period Bad Debt Balance		\$ (54,678)	\$ (31,970)	\$ (9,201)	\$ 13,630	\$ 36,523	\$ 59,477	\$ 62,029	\$ 64,615	\$ 67,208	\$ 69,809	\$ 72,416	\$ 75,030
Interest		\$ (179)	\$ (118)	\$ (56)	\$ 6	\$ 68	\$ 130	\$ 165	\$ 172	\$ 179	\$ 186	\$ 193	\$ 200
End of Period Bad Debt Balance with Interest	\$ (77,564)	\$ (54,857)	\$ (32,088)	\$ (9,257)	\$ 13,636	\$ 36,591	\$ 59,607	\$ 62,194	\$ 64,787	\$ 67,387	\$ 69,995	\$ 72,609	\$ 75,230
Local Production and Storage Capacity		\$ 79,351	\$ 79,351	\$ 79,351	\$ 79,351	\$ 79,351	\$ 79,351	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Miscellaneous Overhead		\$ 77,268	\$ 77,268	\$ 77,268	\$ 77,268	\$ 77,268	\$ 77,268	\$ 19,475	\$ 19,475	\$ 19,475	\$ 19,475	\$ 19,475	\$ 19,475
Gas Cost Other than Bad Debt and Working Capital Over/Under Collection													
Beginning Balance Over/Under Collection	\$ 237,004	\$ 237,004	\$ (456,992)	\$ (1,601,680)	\$ (2,706,597)	\$ (3,624,716)	\$ (4,648,898)	\$ (5,233,538)	\$ (4,443,986)	\$ (3,555,397)	\$ (2,631,496)	\$ (1,710,036)	\$ (822,367)
Net Costs - Revenues		\$ (693,699)	\$ (1,141,904)	\$ (1,099,091)	\$ (909,558)	\$ (1,012,993)	\$ (571,275)	\$ 802,639	\$ 899,407	\$ 932,267	\$ 927,331	\$ 891,094	\$ 722,844
Ending Balance before Interest		\$ (456,695)	\$ (1,598,896)	\$ (2,700,771)	\$ (3,616,154)	\$ (4,637,710)	\$ (5,220,174)	\$ (4,430,899)	\$ (3,544,579)	\$ (2,623,130)	\$ (1,704,165)	\$ (818,942)	\$ (99,523)
Average Balance		\$ (109,845)	\$ (1,027,944)	\$ (2,151,225)	\$ (3,161,376)	\$ (4,131,213)	\$ (4,934,536)	\$ (4,832,219)	\$ (3,994,283)	\$ (3,089,263)	\$ (2,167,831)	\$ (1,264,489)	\$ (460,945)
Interest Rate		3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%
Interest Expense		\$ (297)	\$ (2,784)	\$ (5,826)	\$ (8,562)	\$ (11,189)	\$ (13,364)	\$ (13,087)	\$ (10,818)	\$ (8,367)	\$ (5,871)	\$ (3,425)	\$ (1,248)
Ending Balance Incl Interest Expense	\$ 237,004	\$ (456,992)	\$ (1,601,680)	\$ (2,706,597)	\$ (3,624,716)	\$ (4,648,898)	\$ (5,233,538)	\$ (4,443,986)	\$ (3,555,397)	\$ (2,631,496)	\$ (1,710,036)	\$ (822,367)	\$ (100,771)
Total Over/Under Collection Ending Balance	\$ 152,135	\$ (515,980)	\$ (1,633,431)	\$ (2,710,026)	\$ (3,600,506)	\$ (4,597,889)	\$ (5,157,224)	\$ (4,363,459)	\$ (3,470,860)	\$ (2,542,994)	\$ (1,617,555)	\$ (725,873)	\$ 133
Total Indirect Cost of Gas	\$ 152,135	\$ 182,203	\$ 181,071	\$ 179,115	\$ 175,697	\$ 172,229	\$ 168,558	\$ 10,601	\$ 12,667	\$ 15,073	\$ 17,583	\$ 20,062	\$ 22,637
Total Cost of Gas	\$ 152,135	\$ 3,757,461	\$ 5,195,025	\$ 6,325,824	\$ 5,472,784	\$ 4,444,257	\$ 2,685,487	\$ 1,781,631	\$ 1,543,162	\$ 1,483,365	\$ 1,489,277	\$ 1,516,829	\$ 1,953,378
Total Interest	\$ -	\$ (492)	\$ (2,907)	\$ (5,874)	\$ (8,534)	\$ (11,087)	\$ (13,192)	\$ (12,875)	\$ (10,595)	\$ (8,133)	\$ (5,626)	\$ (3,169)	\$ (981)

Northern Utilities
NEW HAMPSHIRE (Over) / Undercollection Anal

	Winter	Summer	Prior Period	Total
Working Capital				
Total Anticipated Direct Cost of Gas				\$ 36,490,984
Working Capital Percentage				
Working Capital Allowance	\$ 23,925	\$ 8,625	\$ (7,305)	\$ 25,245
Beginning Period Working Capital Balance				
End of Period Working Capital Allowance				
Interest	\$ 86	\$ 343		\$ 429
End of period with Interest				
Bad Debt				
Projected Bad Debt	\$ 137,320	\$ 14,529	\$ (77,564)	\$ 74,285
Beginning Period Bad Debt Balance				
End of Period Bad Debt Balance				
Interest	\$ (149)	\$ 1,094		\$ 945
End of Period Bad Debt Balance with Interest				
Local Production and Storage Capacity				\$ 476,106
				\$ -
Miscellaneous Overhead				\$ 580,455
Gas Cost Other than Bad Debt and Working Capital Over/L				
Beginning Balance Over/Under Collection				\$ (31,198,700)
Net Costs - Revenues				\$ (252,937)
Ending Balance before Interest				\$ (31,451,637)
Average Balance				\$ (31,325,168)
Interest Rate				
Interest Expense				\$ (84,839)
Ending Balance Incl Interest Expense			\$ 237,004	
Total Over/Under Collection Ending Balance				
Total Indirect Cost of Gas	\$ 1,058,872	\$ 98,623	\$ 152,135	\$ 1,309,631
Total Cost of Gas	\$ 27,880,837	\$ 9,767,642	\$ 152,135	\$ 37,800,614
Total Interest	\$ (42,086)	\$ (41,380)		\$ (83,465)

N.H.P.U.C No. 12
NORTHERN UTILITIES, INC.

Anticipated Cost of Gas

New Hampshire Division
Period Covered: November 1, 2021 - April 31, 2022

Column A	Column B	Column C
1 <u>ANTICIPATED DIRECT COST OF GAS</u>		
2 Purchased Gas for Sales Service:		
3 Demand Costs:	\$ 4,553,044	
4 Supply Costs:	\$ 11,472,168	
5		
6 Storage & Peaking Gas for Sales Service:		
7 Demand, Capacity:	\$ 12,327,011	
8 Commodity Costs:	\$ 7,733,349	
9		
10 Inventory Finance Charge	\$ 1,378	
11		
12 Capacity Release	\$ (4,076,771)	
13		
14 Re-entry Rate & Conversion Rate Revenues	\$ (5,000)	
15		
16 Total Anticipated Direct Cost of Gas		\$ 32,005,179
17		
18 <u>ANTICIPATED INDIRECT COST OF GAS</u>		
19 Adjustments:		
20 Prior Period Under/(Over) Collection	\$ 189,294	
21 Interest	\$ (42,086)	
22 Refunds	\$ -	
23 <u>Interruptible Margins</u>	\$ -	
24 Total Adjustments		\$ 147,208
25		
26 Working Capital:		
27 Total Anticipated Direct Cost of Gas	\$ 32,005,179	
28 Working Capital Allowance Percentage (10.02 [lag days]/365* prime rate)	<u>0.0892%</u>	
29 Working Capital Allowance	\$ 28,555	
30		
31 Plus: Working Capital Reconciliation (Acct 173)	<u>\$ (5,834)</u>	
32		
33 Total Working Capital Allowance		\$ 22,721
34		
35 Bad Debt:		
36 Bad Debt Allowance	\$ 137,320	
37 Plus: Bad Debt Reconciliation (Acct 173)	<u>\$ (61,950)</u>	
38 Total Bad Debt Allowance		\$ 75,370
39		
40 Local Production and Storage Capacity		\$ 476,106
41		
42 Miscellaneous Overhead-79.87% Allocated to Winter Season		<u>\$ 463,606</u>
43		
44 Total Anticipated Indirect Cost of Gas		\$ 1,185,012
45		
46 Total Cost of Gas		<u>\$ 33,190,191</u>

(*) Prime Rate is 3.25%

**N.H.P.U.C No. 12
NORTHERN UTILITIES, INC.**

Summary

Anticipated Cost of Gas

New Hampshire Division

Period Covered: November 1, 2021 - April 31, 2022

Column A

Column D

1	<u>ANTICIPATED DIRECT COST OF GAS</u>	
2	Purchased Gas for Sales Service:	
3	Demand Costs:	Attachment NUI-CAK-2, LN 71 + LN 75
4	Supply Costs:	Attachment NUI-CAK-6, LN 14
5		
6	Storage & Peaking Gas for Sales Service:	
7	Demand, Capacity:	Attachment NUI-CAK-2, LN 73 + LN 74
8	Commodity Costs:	Attachment NUI-CAK-6, LN 15 + LN 16
9		
10	Inventory Finance Charge	Attachment NUI-CAK-6, LN 17
11		
12	Capacity Release	-(Attachment NUI-CAK-2, LN 77)
13		
14	Re-entry Rate & Conversion Rate Revenues	Attachment NUI-CAK-2, LN 79
15		
16	Total Anticipated Direct Cost of Gas	Sum (LN 3 : LN 14)
17		
18	<u>ANTICIPATED INDIRECT COST OF GAS</u>	
19	Adjustments:	
20	Prior Period Under/(Over) Collection	Attachment NUI-CAK-10, Page 1
21	Interest	Attachment NUI-CAK-12, LN 94: Total
22	Refunds	
23	Interruptible Margins	-(Attachment NUI-CAK-2, LN 78)
24	Total Adjustments	Sum (LN 20 : LN 23)
25		
26	Working Capital:	
27	Total Anticipated Direct Cost of Gas	LN 16
28	Working Capital Allowance Percentage (10.02 [lag days]/365* primTariff - NHPUC No. 12 , Section 6.1	
29	Working Capital Allowance	LN 27 * LN 28
30		
31	Plus: Working Capital Reconciliation (Acct 173)	Attachment NUI-CAK-10, Attachment A
32		
33	Total Working Capital Allowance	Sum (LN 29 : LN 31)
34		
35	Bad Debt:	
36	Bad Debt Allowance	Attachment NUI-CAK-11, LN 16
37	Plus: Bad Debt Reconciliation (Acct 173)	Schedule 10-CAK, Attachment B
38	Total Bad Debt Allowance	LN 36 + LN 37
39		
40	Local Production and Storage Capacity	Attachment NUI-CAK-2, LN 84
41		
42	Miscellaneous Overhead-79.87% Allocated to Winter Season	Attachment NUI-CAK-2, LN 83
43		
44	Total Anticipated Indirect Cost of Gas	Sum (LN 24 : LN 42)
45		
46	Total Cost of Gas	LN 44 + LN 16

(*) Prime Rate is 3.25%

48 CALCULATION OF FIRM SALES COST OF GAS RATE
49 Period Covered: November 1, 2021 - April 31, 2022

50	Column A	Column B	Column C
52			
53	Total Anticipated Direct Cost of Gas	\$ 32,005,179	
54	Projected Prorated Sales (11/01/21 - 04/30/22)	35,339,329	
55	Direct Cost of Gas Rate		\$ 0.9057 per therm
56			
57	Demand Cost of Gas Rate	\$ 12,798,284	\$ 0.3622 per therm
58	Commodity Cost of Gas Rate	\$ 19,206,895	\$ 0.5435 per therm
59	Total Direct Cost of Gas Rate	\$ 32,005,179	\$ 0.9057 per therm
60			
61	Total Anticipated Indirect Cost of Gas	\$ 1,185,012	
62	Projected Prorated Sales (11/01/21 - 04/30/22)	35,339,329	
63	Indirect Cost of Gas		\$ 0.0335 per therm
64			
65			
66	TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/21		\$ 0.9392 per therm

68	RESIDENTIAL COST OF GAS RATE - 11/01/21	COGwr	\$ 0.9392 per therm
69		Maximum (COG+25%)	\$ 1.1740

72	COM/IND LOW WINTER USE COST OF GAS RATE - 11/01/21	COGwl	\$ 0.8453 per therm
73		Maximum (COG+25%)	\$ 1.0566

75	C&I HLF Demand Costs Allocated per SMBA	\$ 668,845
76	PLUS: Residential Demand Reallocation to C&I HLF	\$ 15,887
77	C&I HLF Total Adjusted Demand Costs	\$ 684,732
78	C&I HLF Projected Prorated Sales (11/01/21 - 04/30/22)	2,692,919
79	Demand Cost of Gas Rate	\$ 0.2543
80		
81	C&I HLF Commodity Costs Allocated per SMBA	\$ 1,503,327
82	PLUS: Residential Commodity Reallocation to C&I HLF	\$ (2,088)
83	C&I HLF Total Adjusted Commodity Costs	\$ 1,501,239
84	C&I HLF Projected Prorated Sales (11/01/21 - 05/30/22)	2,692,919
85	Commodity Cost of Gas Rate	\$ 0.5575
86		
87	Indirect Cost of Gas	\$ 0.0335
88		
89	Total C&I HLF Cost of Gas Rate	\$ 0.8453

92	COM/IND HIGH WINTER USE COST OF GAS RATE - 11/01/21	COGwh	\$ 0.9551 per therm
93		Maximum (COG+25%)	\$ 1.1939

95	C&I LLF Demand Costs Allocated per SMBA	\$ 5,898,495
96	PLUS: Residential Demand Reallocation to C&I LLF	\$ 140,104
97	C&I LLF Total Adjusted Demand Costs	\$ 6,038,599
98	C&I LLF Projected Prorated Sales (11/01/21 - 04/30/22)	15,871,915
99	Demand Cost of Gas Rate	\$ 0.3805
100		
101	C&I LLF Commodity Costs Allocated per SMBA	\$ 8,600,676
102	PLUS: Residential Commodity Reallocation to C&I LLF	\$ (11,944)
103	C&I LLF Total Adjusted Commodity Costs	\$ 8,588,732
104	C&I LLF Projected Prorated Sales (11/01/21 - 04/30/22)	15,871,915
105	Commodity Cost of Gas Rate	\$ 0.5411
106		
107	Indirect Cost of Gas	\$ 0.0335
108		
109	Total C&I LLF Cost of Gas Rate	\$ 0.9551

48	CALCULATION OF FIRM SALES COST OF GAS RATE	
49	Period Covered: November 1, 2021 - April 31, 2022	
50		
51	Column A	Column D
52		
53	Total Anticipated Direct Cost of Gas	LN 16
54	Projected Prorated Sales (11/01/21 - 04/30/22)	Attachment NUI-CAK-3, LN 11
55	Direct Cost of Gas Rate	LN 53 / LN 54
56		
57	Demand Cost of Gas Rate	Column B : SUM (LN 3 , LN 7 , LN 12) : COLUMN C: LN 5
58	Commodity Cost of Gas Rate	Column B : SUM (LN 4 , LN 8) : COLUMN C: LN 58 / LN 5
59	Total Direct Cost of Gas Rate	SUM (LN 57 : LN 58)
60		
61	Total Anticipated Indirect Cost of Gas	Column B : LN 44
62	Projected Prorated Sales (11/01/21 - 04/30/22)	Column B : LN 54
63	Indirect Cost of Gas	LN 61 / LN 62
64		
65		
66	TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/21	LN 59 + LN 63
67		
68	RESIDENTIAL COST OF GAS RATE - 11/01/21	LN 66
69		LN 68 * 1.25
70		
71		
72	COM/IND LOW WINTER USE COST OF GAS RATE - 11/01/21	LN 89
73		LN 72 * 1.25
74		
75	C&I HLF Demand Costs Allocated per SMBA	Attachment NUI-CAK-4, LN 170
76	PLUS: Residential Demand Reallocation to C&I HLF	Attachment NUI-CAK-9, LN 16
77	C&I HLF Total Adjusted Demand Costs	Sum (LN 75 : LN 76)
78	C&I HLF Projected Prorated Sales (11/01/21 - 04/30/22)	Attachment NUI-CAK-3, LN 14
79	Demand Cost of Gas Rate	LN 77 / LN 78
80		
81	C&I HLF Commodity Costs Allocated per SMBA	Attachment NUI-CAK-8, LN 83
82	PLUS: Residential Commodity Reallocation to C&I HLF	Attachment NUI-CAK-9, LN 26
83	C&I HLF Total Adjusted Commodity Costs	Sum (LN 81 : LN 82)
84	C&I HLF Projected Prorated Sales (11/01/21 - 05/30/22)	LN 78
85	Commodity Cost of Gas Rate	LN 83 / LN 84
86		
87	Indirect Cost of Gas	LN 63
88		
89	Total C&I HLF Cost of Gas Rate	Sum (LN 79, LN 85, LN 87)
90		
91		
92	COM/IND HIGH WINTER USE COST OF GAS RATE - 11/01/21	LN 109
93		LN 92 * 1.25
94		
95	C&I LLF Demand Costs Allocated per SMBA	Attachment NUI-CAK-4, LN 171
96	PLUS: Residential Demand Reallocation to C&I LLF	Attachment NUI-CAK-9, LN 17
97	C&I LLF Total Adjusted Demand Costs	Sum (LN 95 : LN 96)
98	C&I LLF Projected Prorated Sales (11/01/21 - 04/30/22)	Attachment NUI-CAK-3, LN 15
99	Demand Cost of Gas Rate	LN 97 / LN 98
100		
101	C&I LLF Commodity Costs Allocated per SMBA	Attachment NUI-CAK-8, LN 84
102	PLUS: Residential Commodity Reallocation to C&I LLF	Attachment NUI-CAK-9, LN 27
103	C&I LLF Total Adjusted Commodity Costs	Sum (LN 101 : LN 102)
104	C&I LLF Projected Prorated Sales (11/01/21 - 04/30/22)	LN 98
105	Commodity Cost of Gas Rate	LN 103 / LN 104
106		
107	Indirect Cost of Gas	LN 63
108		
109	Total C&I LLF Cost of Gas Rate	Sum (LN 99, LN 105, LN 107)

N.H.P.U.C No.12
NORTHERN UTILITIES, INC.

Anticipated Cost of Gas

Summary Schedule

New Hampshire Division
Period Covered: May 1, 2022 - October 31, 2022

Column A	Column B	Column C
110 <u>ANTICIPATED DIRECT COST OF GAS</u>		
111 Purchased Gas:		
112 Demand Costs:	\$ 956,729	
113 Supply Costs:	\$ 3,110,213	
114		
115 Storage & Peaking Gas:		
116 Demand, Capacity:	\$ 397,395	
117 Commodity Costs:	\$ 21,467	
118		
119 Inventory Finance Charge	\$ -	
120		
121 Capacity Release	\$ -	
122		
123 Re-entry Rate & Conversion Rate Revenues	\$ -	
124		
125 Total Anticipated Direct Cost of Gas		\$ 4,485,805
126		
127 <u>ANTICIPATED INDIRECT COST OF GAS</u>		
128 Adjustments:		
129 Prior Period Under/(Over) Collection	\$ 47,710	
130 Interest	\$ (41,380)	
131 Refunds	\$ -	
132 Interruptible Margins	\$ -	
133 Total Adjustments		\$ 6,330
134		
135 Working Capital:		
136 Total Anticipated Direct Cost of Gas	\$ 4,485,805	
137 Working Capital Allowance Percentage (10.02 [lag days]/365* prime rate)	<u>0.089%</u>	
138 Working Capital Allowance	\$ 4,002	
139 Plus: Working Capital Reconciliation (Acct. 173)	<u>\$ (1,470)</u>	
140		
141 Total Working Capital Allowance		\$ 2,532
142		
143 Bad Debt:		
144 Projected Bad Debt	\$ 14,529	
145 Plus: Bad Debt Reconciliation (Acct 173)	<u>\$ (15,614)</u>	
146 Total Bad Debt Expense		\$ (1,085)
147		
148 Local Production and Storage Capacity		\$ -
149		
150 Miscellaneous Overhead-20.13% Allocated to Summer Season		\$ 116,849
151		
152 Total Anticipated Indirect Cost of Gas		\$ 124,627
153		
154 Total Cost of Gas		\$ 4,610,432
155		

(*) Prime Rate is 3.25%

N.H.P.U.C No.12
NORTHERN UTILITIES, INC.

Anticipated Cost of Gas

New Hampshire Division
Period Covered: May 1, 2022 - October 31, 2022

Column A	Column D
110 <u>ANTICIPATED DIRECT COST OF GAS</u>	
111 Purchased Gas:	
112 Demand Costs:	Attachment NUI-CAK-2, LN 71 + LN 75
113 Supply Costs:	Attachment NUI-CAK-6, LN 14
114	
115 Storage & Peaking Gas:	
116 Demand, Capacity:	Attachment NUI-CAK-2, LN 73
117 Commodity Costs:	Attachment NUI-CAK-6, LN 15 + LN 16
118	
119 Inventory Finance Charge	- (Attachment NUI-CAK-6, LN 20)
120	
121 Capacity Release	- (Attachment NUI-CAK-2, LN 77)
122	
123 Re-entry Rate & Conversion Rate Revenues	
124	
125 Total Anticipated Direct Cost of Gas	Sum (LN 112 : LN 123)
126	
127 <u>ANTICIPATED INDIRECT COST OF GAS</u>	
128 Adjustments:	
129 Prior Period Under/(Over) Collection	Attachment NUI-CAK-10, Page 1
130 Interest	Attachment NUI-CAK-12, LN 94: Total
131 Refunds	Company Analysis
132 Interruptible Margins	- (Attachment NUI-CAK-2, LN 78)
133 Total Adjustments	Sum (LN 129 : LN 132)
134	
135 Working Capital:	
136 Total Anticipated Direct Cost of Gas	LN 125
137 Working Capital Allowance Percentage (10.02 [lag days]/365* primTariff - NHPUC No. 12 , Section 6.1	
138 Working Capital Allowance	LN 136 * LN 137
139 Plus: Working Capital Reconciliation (Acct. 173)	Attachment NUI-CAK-10, Attachment A
140	
141 Total Working Capital Allowance	Sum (LN 138 : LN 139)
142	
143 Bad Debt:	
144 Projected Bad Debt	Attachment NUI-CAK-11, LN 17
145 Plus: Bad Debt Reconciliation (Acct 173)	Schedule 10-CAK, Attachment B
146 Total Bad Debt Expense	Sum (LN 144 : LN 145)
147	
148 Local Production and Storage Capacity	Attachment NUI-CAK-2, LN 84
149	
150 Miscellaneous Overhead-20.13% Allocated to Summer Season	Attachment NUI-CAK-2, LN 83
151	
152 Total Anticipated Indirect Cost of Gas	Sum (LN 133 : LN 150)
153	
154 Total Cost of Gas	LN 152 + LN 125
155	

(*) Prime Rate is 3.25%

NORTHERN UTILITIES, INC.

156
 157 CALCULATION OF FIRM SALES COST OF GAS RATE
 158 Period Covered: May 1, 2022 - October 31, 2022
 159

160 Column A	Column B	Column C
161		
162 Total Anticipated Direct Cost of Gas	\$ 4,485,805	
163 Projected Prorated Sales (05/01/22 - 10/31/22)	8,907,030	
164 Direct Cost of Gas Rate		\$ 0.5036 per therm
165		
166 Demand Cost of Gas Rate	\$ 1,354,125	\$ 0.1520 per therm
167 Commodity Cost of Gas Rate	\$ 3,131,680	\$ 0.3516 per therm
168 Total Direct Cost of Gas Rate	\$ 4,485,805	\$ 0.5036 per therm
169		
170 Total Anticipated Indirect Cost of Gas	\$ 124,627	
171 Projected Prorated Sales (05/01/22 - 10/31/22)	8,907,030	
172 Indirect Cost of Gas		\$ 0.0140 per therm
173		
174		
175 TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/22		\$ 0.5176 per therm

176	RESIDENTIAL COST OF GAS RATE - 05/01/22	COGwr	\$ 0.5176 per therm
177		Maximum (COG+25%)	\$ 0.6470

180	COM/IND LOW WINTER USE COST OF GAS RATE - 05/01/22	COGwl	\$ 0.4740 per therm
181		Maximum (COG+25%)	\$ 0.5925

182	C&I HLF Demand Costs Allocated per SMBA	\$ 205,468
183	PLUS: Residential Demand Reallocation to C&I HLF	\$ 11,258
184	C&I HLF Total Adjusted Demand Costs	\$ 216,726
185	C&I HLF Projected Prorated Sales (05/01/22 - 10/31/22)	1,996,958
186	Demand Cost of Gas Rate	\$ 0.1085
187		
188	C&I HLF Commodity Costs Allocated per SMBA	\$ 701,906
189	PLUS: Residential Commodity Reallocation to C&I HLF	\$ 64
190	C&I HLF Total Adjusted Commodity Costs	\$ 701,970
191	C&I HLF Projected Prorated Sales (05/01/22 - 10/31/22)	1,996,958
192	Commodity Cost of Gas Rate	\$ 0.3515
193		
194	Indirect Cost of Gas	\$ 0.0140
195		
196	Total C&I HLF Cost of Gas Rate	\$ 0.4740

197	COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/22	COGwh	\$ 0.5445 per therm
198		Maximum (COG+25%)	\$ 0.6806

199	C&I LLF Demand Costs Allocated per SMBA	\$ 549,002
200	PLUS: Residential Demand Reallocation to C&I LLF	\$ 30,080
201	C&I LLF Total Adjusted Demand Costs	\$ 579,082
202	C&I LLF Projected Prorated Sales (05/01/22 - 10/31/22)	3,236,934
203	Demand Cost of Gas Rate	\$ 0.1789
204		
205	C&I LLF Commodity Costs Allocated per SMBA	\$ 1,138,131
206	PLUS: Residential Commodity Reallocation to C&I LLF	\$ 104
207	C&I LLF Total Adjusted Commodity Costs	\$ 1,138,235
208	C&I LLF Projected Prorated Sales (05/01/22 - 10/31/22)	3,236,934
209	Commodity Cost of Gas Rate	\$ 0.3516
210		
211	Indirect Cost of Gas	\$ 0.0140
212		
213	Total C&I LLF Cost of Gas Rate	\$ 0.5445

NORTHERN UTILITIES, INC.

156		
157	CALCULATION OF FIRM SALES COST OF GAS RATE	
158	Period Covered: May 1, 2022 - October 31, 2022	
159		
160	Column A	Column D
161		
162	Total Anticipated Direct Cost of Gas	LN 125
163	Projected Prorated Sales (05/01/22 - 10/31/22)	Attachment NUI-CAK-3, LN 11
164	Direct Cost of Gas Rate	LN 162 / LN 163
165		
166	Demand Cost of Gas Rate	Column B : SUM (LN 112 , LN 116 , LN 121 , LN 123) : Cc
167	Commodity Cost of Gas Rate	Column B : SUM (LN 113 , LN 117 , LN 119) : COLUMN C
168	Total Direct Cost of Gas Rate	SUM (LN 166 : LN 167)
169		
170	Total Anticipated Indirect Cost of Gas	Column B : LN 152
171	Projected Prorated Sales (05/01/22 - 10/31/22)	Column B : LN 163
172	Indirect Cost of Gas	LN 170 / LN 171
173		
174		
175	TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/22	LN 168 + LN 172
176		
177	RESIDENTIAL COST OF GAS RATE - 05/01/22	LN 175
178		LN 177 * 1.25
179		
180		
181	COM/IND LOW WINTER USE COST OF GAS RATE - 05/01/22	LN 198
182		LN 181 * 1.25
183		
184	C&I HLF Demand Costs Allocated per SMBA	Attachment NUI-CAK-4, LN 170
185	PLUS: Residential Demand Reallocation to C&I HLF	Attachment NUI-CAK-9, LN 16
186	C&I HLF Total Adjusted Demand Costs	Sum (LN 184 : LN 185)
187	C&I HLF Projected Prorated Sales (05/01/22 - 10/31/22)	Attachment NUI-CAK-3, LN 14
188	Demand Cost of Gas Rate	LN 186 / LN 187
189		
190	C&I HLF Commodity Costs Allocated per SMBA	Attachment NUI-CAK-8, LN 83
191	PLUS: Residential Commodity Reallocation to C&I HLF	Attachment NUI-CAK-9, LN 26
192	C&I HLF Total Adjusted Commodity Costs	Sum (LN 190 : LN 191)
193	C&I HLF Projected Prorated Sales (05/01/22 - 10/31/22)	LN 187
194	Commodity Cost of Gas Rate	LN 192 / LN 193
195		
196	Indirect Cost of Gas	LN 172
197		
198	Total C&I HLF Cost of Gas Rate	Sum (LN 188, LN 194, LN 196)
199		
200		
201	COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/22	LN 218
202		LN 201 * 1.25
203		
204	C&I LLF Demand Costs Allocated per SMBA	Attachment NUI-CAK-4, LN 171
205	PLUS: Residential Demand Reallocation to C&I LLF	Attachment NUI-CAK-9, LN 17
206	C&I LLF Total Adjusted Demand Costs	Sum (LN 204 : LN 205)
207	C&I LLF Projected Prorated Sales (05/01/22 - 10/31/22)	Attachment NUI-CAK-3, LN 15
208	Demand Cost of Gas Rate	LN 206 / LN 207
209		
210	C&I LLF Commodity Costs Allocated per SMBA	Attachment NUI-CAK-8, LN 84
211	PLUS: Residential Commodity Reallocation to C&I LLF	Attachment NUI-CAK-9, LN 27
212	C&I LLF Total Adjusted Commodity Costs	Sum (LN 210 : LN 211)
213	C&I LLF Projected Prorated Sales (05/01/22 - 10/31/22)	LN 207
214	Commodity Cost of Gas Rate	LN 212 / LN 213
215		
216	Indirect Cost of Gas	LN 172
217		
218	Total C&I LLF Cost of Gas Rate	Sum (LN 208, LN 214, LN 216)

NORTHERN UTILITIES, INC.

**N.H.P.U.C No. 12
NORTHERN UTILITIES, INC.**

Anticipated Cost of Gas

New Hampshire Division
Period Covered: November 1, 2021 - October 31, 2022

Column A	Column B	Column C
219 <u>ANTICIPATED DIRECT COST OF GAS</u>		
220 Purchased Gas for Sales Service:		
221 Demand Costs:	\$ 5,509,774	
222 Supply Costs:	\$ 14,582,381	
223		
224 Storage & Peaking Gas for Sales Service:		
225 Demand, Capacity:	\$ 12,724,406	
226 Commodity Costs:	\$ 7,754,816	
227		
228 Inventory Finance Charge	\$ 1,378	
229		
230 Capacity Release	\$ (4,076,771)	
231		
232 Re-entry Rate & Conversion Rate Revenues	\$ (5,000)	
233		
234 Total Anticipated Direct Cost of Gas		\$ 36,490,984
235		
236 <u>ANTICIPATED INDIRECT COST OF GAS</u>		
237 Adjustments:		
238 Prior Period Under/(Over) Collection	\$ 237,004	
239 Interest	\$ (83,465)	
240 Refunds	\$ -	
241 <u>Interruptible Margins</u>	\$ -	
242 Total Adjustments		\$ 153,539
243		
244 Working Capital:		
245 Total Anticipated Direct Cost of Gas	\$ 36,490,984	
246 Working Capital Percentage	<u>0.0892%</u>	
247 Working Capital Allowance	\$ 32,557	
248		
249 Plus: Working Capital Reconciliation (Acct 173)	\$ (7,304)	
250		
251 Total Working Capital Allowance		\$ 25,253
252		
253 Bad Debt:		
254 Bad Debt Allowance	\$ 151,850	
255 Plus: Bad Debt Reconciliation (Acct 173)	\$ (77,564)	
256 Total Bad Debt Allowance		\$ 74,286
257		
258 Local Production and Storage Capacity		\$ 476,106
259		
260 Miscellaneous Overhead		\$ 580,455
261		
262 Total Anticipated Indirect Cost of Gas		\$ 1,309,638
263		
264 Total Cost of Gas		<u>\$ 37,800,622</u>

NORTHERN UTILITIES, INC.

**N.H.P.U.C No. 12
NORTHERN UTILITIES, INC.**

Anticipated Cost of Gas

New Hampshire Division
Period Covered: November 1, 2021 - October 31, 2022

Column A	Column D
219 <u>ANTICIPATED DIRECT COST OF GAS</u>	
220 Purchased Gas for Sales Service:	
221 Demand Costs:	LN 3 + LN 112
222 Supply Costs:	LN 4 + LN 113
223	
224 Storage & Peaking Gas for Sales Service:	
225 Demand, Capacity:	LN 7 + LN 116
226 Commodity Costs:	LN 8 + LN 117
227	
228 Inventory Finance Charge	LN 10 + LN 119
229	
230 Capacity Release	LN 12 + LN 121
231	
232 Re-entry Rate & Conversion Rate Revenues	LN 14 + LN 123
233	
234 Total Anticipated Direct Cost of Gas	LN 16 + LN 125
235	
236 <u>ANTICIPATED INDIRECT COST OF GAS</u>	
237 Adjustments:	
238 Prior Period Under/(Over) Collection	LN 20 + LN 129
239 Interest	LN 21 + LN 130
240 Refunds	LN 22 + LN 131
241 <u>Interruptible Margins</u>	LN 23 + LN 132
242 Total Adjustments	LN 24 + LN 133
243	
244 Working Capital:	
245 Total Anticipated Direct Cost of Gas	LN 27 + LN 136
246 Working Capital Percentage	LN 28 + LN 137
247 Working Capital Allowance	LN 29 + LN 138
248	
249 Plus: Working Capital Reconciliation (Acct 173)	LN 31 + LN 139
250	
251 Total Working Capital Allowance	LN 33 + LN 141
252	
253 Bad Debt:	
254 Bad Debt Allowance	LN 36 + LN 144
255 Plus: Bad Debt Reconciliation (Acct 173)	LN 37 + LN 145
256 Total Bad Debt Allowance	LN 38 + LN 146
257	
258 Local Production and Storage Capacity	LN 40 + LN 148
259	
260 Miscellaneous Overhead	LN 42 + LN 150
261	
262 Total Anticipated Indirect Cost of Gas	LN 44 + LN 152
263	
264 Total Cost of Gas	LN 46 + LN 154

Northern Utilities New Hampshire Division
Cost of Gas Rate Comparison - Residential Rate Classes
(rates per therm)

Proposed Rates	2020-2021 Actual Cost of Gas Rates						Average	Variance
November 2021 - April 2022	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	Winter 20-21	
\$0.9392	\$0.7315	\$0.7315	\$0.7315	\$0.7315	\$0.7315	\$0.7315	\$0.7315	\$0.2077
May 2022 - October 2022	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Summer 2021	
\$0.5176	\$0.4970	\$0.4970	\$0.4970	\$0.4970	\$0.4970	\$0.4970	\$0.4970	\$0.0206

Formula for Supplier Balancing Charge

Balancing Resources

Line	NU Storage Capacity Costs (Fixed)		NU Storage Space (Dth)	Reference
1	\$ 122,375	TGP	259,337	Attachment NUI-FXW-4, Page 4
2	<u>\$ 2,840,000</u>	Union	<u>4,000,000</u>	Attachment NUI-FXW-4, Page 4
3	\$ 2,962,375	TOTAL	4,259,337	LN 1 + LN 2
4	Weighted Average Capacity Cost		\$ 0.6955 per Dth	LN 3 Cost / LN3 Space
NU Storage Commodity Costs (Variable)				
5	TGP FS-MA	Withdraw/Inject	\$ 0.0174	Attachment NUI-FXW-9, PG 12, LN 10 * 2
6	Union	Withdraw/Inject	\$ 0.0120	Attachment NUI-FXW-9, PG 13, LN 10 * 2
7	Weighted Average Commodity Cost		\$ 0.0123 per Dth	LN 5, LN 6 (weighted)
8	Supplier Balancing Charge		\$ 0.71 per Dth	LN 4 + LN 7

Re-entry Rate & Conversion Rate
Volumes and Revenues

Month	Re-entry Surcharge		Conversion Surcharge	
	Volumes	Revenues	Volumes	Revenues
May-20	0	\$0	0	\$0
Jun-20	1,161	\$47	0	\$0
Jul-20	1,069	\$43	0	\$0
Aug-20	1,025	\$42	0	\$0
Sep-20	1,169	\$47	0	\$0
Oct-20	3,077	\$125	0	\$0
Nov-20	4,860	\$86	0	\$0
Dec-20	12,779	\$15	0	\$0
Jan-21	16,710	\$20	0	\$0
Feb-21	23,305	\$28	0	\$0
Mar-21	24,188	\$29	0	\$0
Apr-21	11,950	\$14	0	\$0
May-21	0	\$0		
Jun-21	529	\$1	0	\$0
Jul-21	866	\$1	0	\$0
Total	102,688	\$499	0	\$0

Northern Utilities, Inc.
Short-Term Debt Limit
(\$ in thousands)

NU Short-Term Debt Limit Calculation (11/1/2021 - 10/31/2022)

Fuel Financing Purposes

NU ME winter gas costs	51,535
NU NH winter gas costs	33,189
Total	84,724

30% of total winter gas costs 25,417 (a)

Non-Fuel Financing Purposes

Estimated net utility plant @ 12/31/21 567,110

15% of Net Utility Plant 85,066 (b)

Short-Term Debt Limit

Short Term Debt Limit **110,484** (a) + (b)