

**NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION**  
**2021-22 ANNUAL COG RECONCILIATION**  
**SCHEDULE 1: SUMMARY OF ANNUAL BALANCE**  
**August 2021 - October 2022**

	AMOUNT	
Annual Beginning Balance	\$ (3,085,000)	FORM III SCHEDULE 2
Less: Reported Collections	\$ (41,330,648)	FORM III SCHEDULE 3
Add: Cost of Firm Gas Allowable	\$ 41,873,686	FORM III SCHEDULE 4
Add: Interest	\$ (121,100)	FORM III SCHEDULE 2
Annual Ending Balance	\$ (2,663,062)	
Summer Season Reconciliation	\$ 94,114	FORM III ATTACHMENT F
Winter Season Reconciliation	\$ (2,757,176)	FORM III ATTACHMENT F

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
SCHEDULE 2: ADJUSTMENTS TO REPORTED SUMMER, WINTER AND ANNUAL ACCOUNTS  
August 2021 - October 2022  
Acct 191

	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>	<u>Jan-22</u>	<u>Feb-22</u>	<u>Mar-22</u>	<u>Apr-22</u>	<u>May-22</u>	<u>Jun-22</u>	<u>Jul-22</u>	-----Estimated-----			<u>Total</u>
													<u>Aug-22</u>	<u>Sep-22</u>	<u>Oct-22</u>	
Initial Account Beginning Balance(1)	\$ (3,091,269)															
Adjustment	\$ 6,269															
Adjusted Beginning Balance	\$ (3,085,000)	\$ (2,074,098)	\$ (982,516)	\$ 256,626	\$ (415,953)	\$ (1,062,471)	\$ (1,556,509)	\$ (2,962,220)	\$ (4,413,357)	\$ (5,704,684)	\$ (5,011,489)	\$ (4,171,359)	\$ (3,623,802)	\$ (2,977,299)	\$ (2,522,360)	
Plus: Cost of Firm Gas (Schedule 4)	\$ 1,449,728	\$ 1,524,147	\$ 1,951,648	\$ 3,142,812	\$ 4,853,683	\$ 6,811,624	\$ 5,317,195	\$ 3,949,005	\$ 2,230,502	\$ 1,814,523	\$ 1,526,484	\$ 1,304,370	\$ 1,652,041	\$ 1,817,491	\$ 2,528,433	\$ 41,873,686
Less: Reported Collections (Schedule 3)	\$ (431,849)	\$ (428,432)	\$ (711,525)	\$ (3,815,175)	\$ (5,498,203)	\$ (7,302,120)	\$ (6,716,795)	\$ (5,390,169)	\$ (3,508,145)	\$ (1,106,837)	\$ (673,935)	\$ (743,843)	\$ (994,555)	\$ (1,353,401)	\$ (2,655,666)	\$ (41,330,648)
Annual Account Ending Balance	\$ (2,067,121)	\$ (978,382)	\$ 257,608	\$ (415,737)	\$ (1,060,472)	\$ (1,552,967)	\$ (2,956,109)	\$ (4,403,383)	\$ (5,691,001)	\$ (4,996,998)	\$ (4,158,941)	\$ (3,610,831)	\$ (2,966,315)	\$ (2,513,209)	\$ (2,649,593)	
Month's Average Balance	\$ (2,576,060)	\$ (1,526,240)	\$ (362,454)	\$ (79,556)	\$ (738,212)	\$ (1,307,719)	\$ (2,256,309)	\$ (3,682,801)	\$ (5,052,179)	\$ (5,350,841)	\$ (4,585,215)	\$ (3,891,095)	\$ (3,295,058)	\$ (2,745,254)	\$ (2,585,976)	
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%	4.00%	4.00%	4.00%	6.25%	
Interest Applied	\$ (6,977)	\$ (4,134)	\$ (982)	\$ (215)	\$ (1,999)	\$ (3,542)	\$ (6,111)	\$ (9,974)	\$ (13,683)	\$ (14,492)	\$ (12,418)	\$ (12,970)	\$ (10,984)	\$ (9,151)	\$ (13,469)	\$ (121,100)
Annual Account Ending Balance w/int	<u>\$ (2,074,098)</u>	<u>\$ (982,516)</u>	<u>\$ 256,626</u>	<u>\$ (415,953)</u>	<u>\$ (1,062,471)</u>	<u>\$ (1,556,509)</u>	<u>\$ (2,962,220)</u>	<u>\$ (4,413,357)</u>	<u>\$ (5,704,684)</u>	<u>\$ (5,011,489)</u>	<u>\$ (4,171,359)</u>	<u>\$ (3,623,802)</u>	<u>\$ (2,977,299)</u>	<u>\$ (2,522,360)</u>	<u>\$ (2,663,062)</u>	

(1) Reflects ATV charges of \$6,211 plus interest, not included in the 2020-2021 reconciliation.

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
SCHEDULE 3: REVENUE BACKUP TO REPORTED COLLECTIONS  
August 2021 - October 2022

	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>	<u>Jan-22</u>	<u>Feb-22</u>	<u>Mar-22</u>	<u>Apr-22</u>	<u>May-22</u>	<u>Jun-22</u>	<u>Jul-22</u>	<u>Aug-22</u>	Estimated <sup>(1)</sup>	<u>Oct-22</u>	<u>Total</u>
														<u>Sep-22</u>		
Accrued Revenue	\$ (20,383)	\$ (26,148)	\$ 123,726	\$ 1,827,473	\$ 594,965	\$ 641,860	\$ (410,161)	\$ (860,914)	\$ (504,541)	\$ (909,991)	\$ (241,998)	\$ (88,683)				
Billed Revenue	\$ 452,233	\$ 454,580	\$ 587,798	\$ 1,987,702	\$ 4,903,238	\$ 6,660,260	\$ 7,126,956	\$ 6,251,082	\$ 4,012,686	\$ 2,016,828	\$ 915,933	\$ 832,526				
Calendarized Revenue	<u>\$ 431,849</u>	<u>\$ 428,432</u>	<u>\$ 711,525</u>	<u>\$ 3,815,175</u>	<u>\$ 5,498,203</u>	<u>\$ 7,302,120</u>	<u>\$ 6,716,795</u>	<u>\$ 5,390,169</u>	<u>\$ 3,508,145</u>	<u>\$ 1,106,837</u>	<u>\$ 673,935</u>	<u>\$ 743,843</u>	<u>\$ 994,555</u>	<u>\$ 1,353,401</u>	<u>\$ 2,655,666</u>	<u>\$ 41,330,648</u>

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
SCHEDULE 4: PURCHASED GAS COSTS  
August 2021 - October 2022

-----Estimated<sup>(1)</sup>-----

Commodity Costs	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Total
Citadel Energy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 434,767	\$ 448,750	\$ 416,882	\$ -	\$ -	\$ -	\$ 30,230				\$ 1,330,629
DTE Energy	\$ 54,410	\$ 55,209	\$ 62,508	\$ 93,098	\$ 96,770	\$ 51,147	\$ -	\$ -	\$ 36,265	\$ -	\$ -	\$ -				\$ 449,406
Emera Energy Services Corp.	\$ 176,055	\$ 214,622	\$ 318,473	\$ 642,889	\$ 1,185,284	\$ 2,127,443	\$ 2,073,780	\$ 2,478,915	\$ 1,367,635	\$ 1,276,983	\$ 1,068,077	\$ 734,868				\$ 13,665,023
Repsol	\$ 60,239	\$ 58,817	\$ 62,507	\$ 88,577	\$ 108,741	\$ 419,445	\$ 1,920,023	\$ 1,021,527	\$ 427,034	\$ -	\$ -	\$ -				\$ 4,166,909
Shell	\$ -	\$ 9,855	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -				\$ 9,855
Subtotal - Commodity	\$ 290,705	\$ 338,503	\$ 443,488	\$ 824,563	\$ 1,390,795	\$ 3,032,802	\$ 4,442,552	\$ 3,917,324	\$ 1,830,934	\$ 1,276,983	\$ 1,068,077	\$ 765,098				\$ 19,621,823
Transportation																
Granite	\$ 101	\$ 116	\$ 126	\$ 254	\$ 419	\$ 648	\$ 507	\$ 304	\$ 187	\$ 163	\$ 118	\$ 97				\$ 3,039
Emera	\$ 57	\$ 45	\$ 81	\$ 186	\$ 458	\$ 677	\$ 1,058	\$ 885	\$ 548	\$ 424	\$ 331	\$ 200				\$ 4,950
Emera Energy Services	\$ -	\$ -	\$ -	\$ -	\$ 1,247	\$ 1,313	\$ 2,367	\$ 1,832	\$ 2,074	\$ 12	\$ 8	\$ -				\$ 8,853
Maritimes	\$ (3,793)	\$ -	\$ -	\$ -	\$ 7,311	\$ 26,834	\$ 22,982	\$ 21,834	\$ 11,788	\$ -	\$ -	\$ -				\$ 86,956
Tennessee	\$ 2,253	\$ 1,984	\$ 1,717	\$ 1,818	\$ 1,711	\$ 2,254	\$ 2,506	\$ 2,315	\$ 2,338	\$ 2,300	\$ 2,398	\$ 2,136				\$ 25,732
Subtotal - Commodity Transportation	\$ (1,381)	\$ 2,145	\$ 1,925	\$ 2,258	\$ 11,147	\$ 31,725	\$ 29,420	\$ 27,169	\$ 16,934	\$ 2,899	\$ 2,855	\$ 2,433				\$ 129,530
Commodity Cost Estimates	\$ 340,536	\$ 445,304	\$ 826,567	\$ 1,401,523	\$ 3,024,667	\$ 4,471,277	\$ 3,944,397	\$ 1,847,812	\$ 1,281,905	\$ 1,070,814	\$ 767,435	\$ 521,844				\$ 19,944,082
Commodity Cost Reversals	\$ (293,016)	\$ (340,536)	\$ (445,304)	\$ (826,567)	\$ (1,401,523)	\$ (3,024,667)	\$ (4,471,277)	\$ (3,944,397)	\$ (1,847,812)	\$ (1,281,905)	\$ (1,070,814)	\$ (767,435)				\$ (19,715,254)
Subtotal - Estimates	\$ 47,520	\$ 104,768	\$ 381,263	\$ 574,956	\$ 1,623,144	\$ 1,446,610	\$ (526,880)	\$ (2,096,585)	\$ (565,907)	\$ (211,092)	\$ (303,379)	\$ (245,591)				\$ 40,629,693
Subtotal - Supply	\$ 336,844	\$ 445,416	\$ 826,675	\$ 1,401,777	\$ 3,025,087	\$ 4,511,138	\$ 3,945,092	\$ 1,847,908	\$ 1,281,962	\$ 1,068,790	\$ 767,553	\$ 521,940				\$ 19,980,181
Withdrawal - Underground Storage	\$ 4,228	\$ 3,114	\$ (7,135)	\$ 535,015	\$ 613,115	\$ 1,103,032	\$ 862,673	\$ 597,180	\$ 114	\$ 52	\$ (244)	\$ 140				\$ 3,711,284
ATV Reconciliation Charges	\$ (6,276)	\$ (3,079)	\$ 14,019	\$ 48,546	\$ (55,137)	\$ (246,204)	\$ (161,610)	\$ (15,690)	\$ 34,491	\$ -	\$ -	\$ -				\$ (390,939)
Off System Sales	\$ -	\$ -	\$ -	\$ (33,131)	\$ (19,114)	\$ -	\$ -	\$ (713,954)	\$ (256,926)	\$ (13,782)	\$ -	\$ -				\$ (1,036,906)
Net OBA Adjustment	\$ (4,169)	\$ 558	\$ 504	\$ (1,065)	\$ (707)	\$ (16,308)	\$ (18,106)	\$ (26,245)	\$ (16,203)	\$ (3,330)	\$ (1,199)	\$ (76)				\$ (86,346)
Company Managed	\$ -	\$ -	\$ -	\$ -	\$ (150,524)	\$ (151,331)	\$ -	\$ (397,607)	\$ (133,072)	\$ -	\$ -	\$ -				\$ (832,534)
LNG Withdrawal / Boiloff	\$ 2,139	\$ 2,101	\$ 1,669	\$ 1,568	\$ 5,186	\$ 65,575	\$ 19,965	\$ (943)	\$ 3,446	\$ 2,817	\$ 2,959	\$ 2,865				\$ 109,345
Supplier Balancing	\$ -	\$ (16,467)	\$ 659	\$ (79,193)	\$ 30,458	\$ 147,211	\$ -	\$ 733,243	\$ 65,326	\$ 7,695	\$ 22,608	\$ 36,550				\$ 948,091
Inventory Finance Charge	\$ 118	\$ 139	\$ 174	\$ 213	\$ 230	\$ 180	\$ 102	\$ 68	\$ 78	\$ 187	\$ 335	\$ 533				\$ 2,357
Subtotal - Other Commodity	\$ (3,959)	\$ (13,634)	\$ 9,890	\$ 471,953	\$ 423,507	\$ 902,154	\$ 703,023	\$ 176,053	\$ (302,746)	\$ (6,361)	\$ 24,460	\$ 40,012				\$ 2,424,351
Sales for Resale Estimates	\$ -	\$ -	\$ (33,146)	\$ (169,638)	\$ (151,331)	\$ (168,932)	\$ (942,629)	\$ (389,998)	\$ (13,782)	\$ -	\$ -	\$ -				\$ (1,869,456)
Sales for Resale Reversals	\$ -	\$ -	\$ -	\$ 33,146	\$ 169,638	\$ 151,331	\$ 168,932	\$ 942,629	\$ 389,998	\$ 13,782	\$ -	\$ -				\$ 1,869,456
Subtotal - Estimates	\$ -	\$ -	\$ (33,146)	\$ (136,492)	\$ 18,306	\$ (17,601)	\$ (773,697)	\$ 552,630	\$ 376,216	\$ 13,782	\$ -	\$ -				\$ -
<b>Total Commodity Costs</b>	\$ 332,885	\$ 431,782	\$ 803,419	\$ 1,737,238	\$ 3,466,900	\$ 5,395,691	\$ 3,874,419	\$ 2,576,591	\$ 1,355,432	\$ 1,076,211	\$ 792,012	\$ 561,952	\$ 910,677	\$ 1,076,126	\$ 1,787,068	\$ 26,178,403

(1) Monthly estimates provided in Table 2 of Northern's August 2022 Monthly Cost of Gas Report, submitted in DG 21-131 on August 12, 2022. Estimates updated for September 7, 2022 NYMEX prices

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
SCHEDULE 4: PURCHASED GAS COSTS  
August 2021 - October 2022

Demand Costs	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	-----Estimated <sup>(1)</sup> -----			Total	
													Aug-22	Sep-22	Oct-22		
<b>Pipeline Reservation</b>																	
Alberta Northeast	\$ 5,836	\$ 4,195	\$ 4,381	\$ 3,926	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,337
Algonquin	\$ 189,780	\$ 189,780	\$ 189,784	\$ 189,784	\$ 188,762	\$ 190,281	\$ 190,257	\$ 190,105	\$ 190,101	\$ 190,248	\$ 182,497	\$ 190,295	\$ -	\$ -	\$ -	\$ -	\$ 2,271,674
Emera	\$ 428,069	\$ 425,072	\$ 437,606	\$ 424,971	\$ 415,710	\$ 428,192	\$ 422,117	\$ 431,121	\$ 427,337	\$ 422,750	\$ 418,881	\$ 420,526	\$ -	\$ -	\$ -	\$ -	\$ 5,102,352
Emera Energy Services LLC	\$ -	\$ -	\$ 5,164	\$ 2,102	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Granite State	\$ 179,428	\$ 188,483	\$ 188,436	\$ 295,526	\$ 295,526	\$ 295,526	\$ 295,526	\$ 295,526	\$ 295,526	\$ 188,943	\$ 188,943	\$ 188,943	\$ -	\$ -	\$ -	\$ -	\$ 2,896,332
Iroquois	\$ 14,060	\$ 14,060	\$ 14,060	\$ 14,060	\$ 14,098	\$ 14,098	\$ 14,098	\$ 14,098	\$ 14,098	\$ 14,098	\$ 14,098	\$ 14,098	\$ -	\$ -	\$ -	\$ -	\$ 169,023
Maritimes	\$ 41,033	\$ 41,033	\$ 40,816	\$ 40,231	\$ 41,144	\$ 41,144	\$ 41,144	\$ 41,144	\$ 41,144	\$ 41,144	\$ 41,144	\$ 41,144	\$ -	\$ -	\$ -	\$ -	\$ -
Portland	\$ 393,492	\$ 393,493	\$ 385,262	\$ 391,390	\$ 390,838	\$ 393,890	\$ 393,890	\$ 393,890	\$ 384,732	\$ 393,890	\$ 390,838	\$ 393,890	\$ 390,838	\$ -	\$ -	\$ -	\$ 4,696,443
Tennessee	\$ 132,065	\$ 132,065	\$ 132,065	\$ 132,065	\$ 129,546	\$ 129,546	\$ 129,546	\$ 129,546	\$ 129,546	\$ 129,546	\$ 129,546	\$ 129,546	\$ -	\$ -	\$ -	\$ -	\$ 1,564,627
Texas Eastern	\$ 2,787	\$ 2,793	\$ 2,793	\$ 2,793	\$ 2,801	\$ 2,796	\$ 2,796	\$ 2,796	\$ 4,570	\$ 4,570	\$ 4,792	\$ 4,792	\$ -	\$ -	\$ -	\$ -	\$ 43,073
<b>Total Pipeline Reservation</b>	\$ 1,386,551	\$ 1,390,973	\$ 1,400,367	\$ 1,496,849	\$ 1,478,424	\$ 1,495,472	\$ 1,489,373	\$ 1,490,841	\$ 1,496,211	\$ 1,382,358	\$ 1,373,791	\$ 1,380,181	\$ -	\$ -	\$ -	\$ -	\$ 17,261,390
<b>Product Demand</b>																	
Excelon	\$ -	\$ -	\$ -	\$ -	\$ 145,596	\$ 145,596	\$ 145,596	\$ 145,596	\$ 145,596	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 727,982
Respol	\$ 327,778	\$ 327,778	\$ 327,778	\$ 327,778	\$ 328,660	\$ 328,660	\$ 328,660	\$ 328,660	\$ 328,660	\$ 328,660	\$ 328,660	\$ 328,660	\$ -	\$ -	\$ -	\$ -	\$ 3,940,393
<b>Total Product Demand</b>	\$ 327,778	\$ 327,778	\$ 327,778	\$ 327,778	\$ 474,257	\$ 474,257	\$ 474,257	\$ 474,257	\$ 474,257	\$ 328,660	\$ 328,660	\$ 328,660	\$ -	\$ -	\$ -	\$ -	\$ 4,668,376
<b>Storage Pipeline Transportation and Demand Reservation</b>																	
Emera	\$ 96,749	\$ 96,749	\$ 96,749	\$ 96,749	\$ 97,010	\$ 97,010	\$ 97,010	\$ 97,010	\$ 97,010	\$ 97,010	\$ 97,010	\$ 97,010	\$ -	\$ -	\$ -	\$ -	\$ 1,163,075
Tennessee	\$ 4,169	\$ 4,169	\$ 4,169	\$ 4,169	\$ 4,087	\$ 4,087	\$ 4,087	\$ 4,087	\$ 4,087	\$ 4,087	\$ 4,087	\$ 4,087	\$ -	\$ -	\$ -	\$ -	\$ 49,369
<b>Total Storage &amp; Demand Reservation</b>	\$ 100,918	\$ 100,918	\$ 100,918	\$ 100,918	\$ 101,096	\$ 101,096	\$ 101,096	\$ 101,096	\$ 101,096	\$ 101,096	\$ 101,096	\$ 101,096	\$ -	\$ -	\$ -	\$ -	\$ 1,212,444
Demand Cost Estimates	\$ 1,358,704	\$ 1,353,020	\$ 1,368,022	\$ 1,522,892	\$ 1,505,894	\$ 1,516,102	\$ 1,503,274	\$ 1,511,785	\$ 983,476	\$ 978,047	\$ 981,815	\$ 975,293	\$ -	\$ -	\$ -	\$ -	\$ 15,558,325
Demand Cost Reversals	\$ (1,361,208)	\$ (1,358,704)	\$ (1,353,020)	\$ (1,368,022)	\$ (1,522,892)	\$ (1,505,894)	\$ (1,516,102)	\$ (1,503,274)	\$ (1,511,785)	\$ (983,476)	\$ (978,047)	\$ (981,815)	\$ -	\$ -	\$ -	\$ -	\$ (15,944,240)
Subtotal	\$ (2,504)	\$ (5,684)	\$ 15,002	\$ 154,870	\$ (16,999)	\$ 10,208	\$ (12,828)	\$ 8,511	\$ (528,308)	\$ (5,429)	\$ 3,768	\$ (6,522)	\$ -	\$ -	\$ -	\$ -	\$ (385,915)
Capacity Release <sup>(2)</sup>	\$ (713,889)	\$ (715,524)	\$ (715,070)	\$ (732,389)	\$ (712,179)	\$ (727,500)	\$ (726,347)	\$ (708,972)	\$ (729,577)	\$ (1,078,405)	\$ (1,082,634)	\$ (1,074,141)	\$ -	\$ -	\$ -	\$ -	\$ (9,716,627)
Company Managed	\$ -	\$ (24,425)	\$ -	\$ (24,134)	\$ (54,780)	\$ (55,644)	\$ -	\$ (109,596)	\$ (55,718)	\$ (55,816)	\$ (10,831)	\$ (10,740)	\$ -	\$ -	\$ -	\$ -	\$ -
Other A&G Allowance	\$ -	\$ -	\$ -	\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 214,538
Local Production and Storage Allowance	\$ 18,154	\$ 18,154	\$ 19,137	\$ 81,450	\$ 81,450	\$ 81,450	\$ 81,450	\$ 81,450	\$ 81,450	\$ 20,529	\$ 20,529	\$ 20,529	\$ -	\$ -	\$ -	\$ -	\$ 605,732
Conversion & Re-entry Fees	\$ (1)	\$ (2)	\$ (3)	\$ (4)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (9)
Fuel Tax Recovery	\$ -	\$ -	\$ -	\$ -	\$ 622	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,458	\$ 4,080
Outage Replacement Costs	\$ -	\$ -	\$ -	\$ 7,240	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 335	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Indirect Demand Costs	\$ (695,736)	\$ (721,798)	\$ (695,936)	\$ (632,079)	\$ (649,131)	\$ (665,937)	\$ (609,140)	\$ (701,362)	\$ (668,088)	\$ (1,113,357)	\$ (1,072,936)	\$ (1,060,894)	\$ -	\$ -	\$ -	\$ -	\$ (9,286,393)
Estimates - Cap Release & Comp Managed	\$ (9,294)	\$ (9,117)	\$ (9,017)	\$ (51,780)	\$ (52,644)	\$ (51,807)	\$ (51,789)	\$ (52,718)	\$ (52,816)	\$ (7,831)	\$ (7,740)	\$ (7,842)	\$ -	\$ -	\$ -	\$ -	\$ (364,394)
Reversals - Cap Release & Comp Managed	\$ 9,131	\$ 9,294	\$ 9,117	\$ 9,017	\$ 51,780	\$ 52,644	\$ 51,807	\$ 51,789	\$ 52,718	\$ 52,816	\$ 7,831	\$ 7,740	\$ -	\$ -	\$ -	\$ -	\$ 365,683
Subtotal	\$ (164)	\$ 178	\$ 99	\$ (42,763)	\$ (864)	\$ 836	\$ 18	\$ (929)	\$ (97)	\$ 44,985	\$ 91	\$ (102)	\$ -	\$ -	\$ -	\$ -	\$ 1,289
<b>Annual Demand Costs</b>	\$ 1,116,843	\$ 1,092,365	\$ 1,148,229	\$ 1,405,574	\$ 1,386,783	\$ 1,415,933	\$ 1,442,776	\$ 1,372,414	\$ 875,070	\$ 738,313	\$ 734,471	\$ 742,419	\$ 741,365	\$ 741,365	\$ 741,365	\$ -	\$ 15,695,283
<b>Total Gas Costs</b>	\$ 1,449,728	\$ 1,524,147	\$ 1,951,648	\$ 3,142,812	\$ 4,853,683	\$ 6,811,624	\$ 5,317,195	\$ 3,949,005	\$ 2,230,502	\$ 1,814,523	\$ 1,526,484	\$ 1,304,370	\$ 1,652,041	\$ 1,817,491	\$ 2,528,433	\$ -	\$ 41,873,686

(1) Monthly estimates provided in Table 2 of Northern's August 2022 Monthly Cost of Gas Report, submitted in DG 21-131 on August 12, 2022. Estimates updated for September 7, 2022 NYMEX prices

(2) Includes Asset Management Agreement Revenue

REDACTED

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
COST OF GAS ADJUSTMENT - FORM III, Schedule 4 - UNITS  
August 2021 - October 2022

Indicates Confidential Data

Commodity Volumes:											-----Estimated <sup>(1)</sup> -----			Total	
	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>	<u>Jan-22</u>	<u>Feb-22</u>	<u>Mar-22</u>	<u>Apr-22</u>	<u>May-22</u>	<u>Jun-22</u>	<u>Jul-22</u>	<u>Aug-22</u>		<u>Sep-22</u>
Citadel Energy	[REDACTED]													[REDACTED]	
DTE Energy															
Emera Energy Services Corp.															
Repsol															
Shell															
Subtotal - Commodity Supply															
<b>Transportation Volumes</b>															
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															
<b>Total Commodity Volumes</b>													109,042	120,812	236,943

(1) Monthly estimates provided in Table 2 of Northern 's August 2022 Monthly Cost of Gas Report, submitted in DG 21-131 on August 12, 2022. Estimates updated for September 7, 2022 NYMEX prices

REDACTED

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
COST OF GAS ADJUSTMENT - FORM III, Schedule 4 - IN COST PER UNIT  
August 2021 - October 2022

Indicates Confidential Data

Commodity Costs per Unit:	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	-----Estimated-----			Total	
													Aug-22	Sep-22	Oct-22		
Citadel																	
DTE Energy																	
Emera Energy Services Corp.																	
Repsol																	
Shell																	
#REF!																	
#REF!																	
Subtotal - Commodity Supply														n/a	n/a	n/a	
Granite																	
Emera																	
Maritimes																	
Tennessee																	
Subtotal - Commodity Transportation														n/a	n/a	n/a	
Commodity Cost Estimates																	
Commodity Cost Reversals																	
Subtotal - Estimates														n/a	n/a	n/a	
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														n/a	n/a	n/a	
Off System Sales Estimates																	
Off System Sales Reversals																	
Subtotal - Estimates																	
<b>Total Commodity Costs per unit</b>														n/a	n/a	n/a	

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
2021-22 ANNUAL COG RECONCILIATION  
SCHEDULE 5: PURCHASED AND MADE VOLUMES  
August 2020 - July 2021

<i>New Hampshire</i>	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>	<u>Jan-22</u>	<u>Feb-22</u>	<u>Mar-22</u>	<u>Apr-22</u>	<u>May-22</u>	<u>Jun-22</u>	<u>Jul-22</u>	<u>Total</u>
<b>Throughput IN</b>													
<i>BTU Factor</i>	1.03	1.031	1.032	1.035	1.038	1.045	1.041	1.032	1.033	1.033	1.03	1.03	
<i>GST Meter Throughput (MCF)</i>	340,320	351,408	459,510	748,758	889,474	1,261,618	1,008,910	886,100	626,997	433,341	355,913	319,407	7,681,756
<i>Salem Meter (MCF)</i>	13,564	14,462	21,702	46,909	65,683	93,668	70,882	57,250	35,197	19,773	14,624	12,447	466,161
<i>GST Meter Throughput (DTH)</i>	350,530	362,302	474,214	774,965	923,274	1,318,391	1,050,275	914,455	647,688	447,641	366,590	328,989	7,959,314
<i>Salem Meter (DTH)</i>	13,971	14,910	22,396	48,551	68,179	97,883	73,788	59,082	36,359	20,426	15,063	12,820	483,428
<i>LNG/Propane</i>													-
<b>Total Throughput</b>	<b>364,501</b>	<b>377,212</b>	<b>496,611</b>	<b>823,515</b>	<b>991,453</b>	<b>1,416,274</b>	<b>1,124,063</b>	<b>973,537</b>	<b>684,046</b>	<b>468,067</b>	<b>381,653</b>	<b>341,810</b>	<b>8,442,742</b>
<b>Throughput OUT</b>													
<i>Residential Gas</i>													
Charged	35,197	34,821	43,485	116,661	243,350	336,974	360,490	293,847	176,136	108,521	48,742	36,040	1,834,264
Uncharged Current	17,907	17,818	27,656	114,951	156,101	219,026	173,908	112,639	91,632	61,708	24,159	19,923	1,037,428
Uncharged Prior	(18,971)	(17,907)	(17,818)	(27,656)	(114,951)	(156,101)	(219,026)	(173,908)	(112,639)	(91,632)	(61,708)	(24,159)	(1,036,476)
<b>Total Residential Gas</b>	<b>34,133</b>	<b>34,732</b>	<b>53,323</b>	<b>203,956</b>	<b>284,500</b>	<b>399,899</b>	<b>315,372</b>	<b>232,578</b>	<b>155,129</b>	<b>78,597</b>	<b>11,193</b>	<b>31,804</b>	<b>1,835,216</b>
<b>Interruptible</b>				-	-	-	-	-	-	-	-	-	-
<i>Commercial/Industrial Gas</i>													
Charged	57,552	58,183	70,080	148,143	280,843	390,268	414,781	330,019	206,545	130,581	69,713	56,034	2,212,742
Uncharged Current	29,281	29,772	44,570	121,670	172,688	242,037	203,039	134,006	111,982	74,252	34,553	30,976	1,228,826
Uncharged Prior	(38,707)	(29,281)	(29,772)	(44,570)	(121,670)	(172,688)	(242,037)	(203,039)	(134,006)	(111,982)	(74,252)	(34,553)	(1,236,557)
<b>Total C/I Gas</b>	<b>48,126</b>	<b>58,674</b>	<b>84,878</b>	<b>225,243</b>	<b>331,861</b>	<b>459,617</b>	<b>375,783</b>	<b>260,986</b>	<b>184,521</b>	<b>92,851</b>	<b>30,014</b>	<b>52,457</b>	<b>2,205,011</b>
<i>Transportation</i>													
Charged	273,159	273,788	300,567	365,727	399,260	494,559	475,783	466,008	382,231	327,505	278,593	252,114	4,289,294
Uncharged Current	92,203	90,530	131,612	191,535	202,192	241,728	191,636	158,391	160,567	130,740	88,236	88,983	1,768,353
Uncharged Prior	(93,246)	(92,203)	(90,530)	(131,612)	(191,535)	(202,192)	(241,728)	(191,636)	(158,391)	(160,567)	(130,740)	(88,236)	(1,772,616)
<b>Total Transportation</b>	<b>272,116</b>	<b>272,115</b>	<b>341,649</b>	<b>425,650</b>	<b>409,917</b>	<b>534,095</b>	<b>425,691</b>	<b>432,763</b>	<b>384,407</b>	<b>297,678</b>	<b>236,089</b>	<b>252,861</b>	<b>4,285,031</b>
<b>Company Use</b>	<b>106</b>	<b>116</b>	<b>83</b>	<b>64</b>	<b>167</b>	<b>298</b>	<b>1,231</b>	<b>423</b>	<b>834</b>	<b>88</b>	<b>389</b>	<b>924</b>	<b>4,724</b>
<b>Total Throughput OUT</b>	<b>354,481</b>	<b>365,637</b>	<b>479,933</b>	<b>854,913</b>	<b>1,026,445</b>	<b>1,393,909</b>	<b>1,118,077</b>	<b>926,750</b>	<b>724,891</b>	<b>469,214</b>	<b>277,685</b>	<b>338,046</b>	<b>8,329,982</b>
<b>Total Throughput IN</b>	<b>364,501</b>	<b>377,212</b>	<b>496,611</b>	<b>823,515</b>	<b>991,453</b>	<b>1,416,274</b>	<b>1,124,063</b>	<b>973,537</b>	<b>684,046</b>	<b>468,067</b>	<b>381,653</b>	<b>341,810</b>	<b>8,442,742</b>
<b>Difference IN/OUT</b>	<b>10,019</b>	<b>11,575</b>	<b>16,678</b>	<b>(31,398)</b>	<b>(34,992)</b>	<b>22,365</b>	<b>5,987</b>	<b>46,787</b>	<b>(40,845)</b>	<b>(1,147)</b>	<b>103,968</b>	<b>3,764</b>	<b>112,761</b>
<b>%</b>													<b>1.34%</b>



**NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
DEFERRED WORKING CAPITAL ALLOWANCE ON PURCHASED GAS COSTS  
August 2021 - October 2022**

**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 2021	\$ (7,882)									
Adjustment	\$ 6									
August 2021	\$ (7,876)	1,293	0.0892%	620	1,913	(5,963)	(6,919)	3.25%	(19)	(5,981)
September	\$ (5,981)	1,360	0.0892%	616	1,976	(4,006)	(4,994)	3.25%	(14)	(4,019)
October	\$ (4,019)	1,741	0.0892%	899	2,640	(1,380)	(2,699)	3.25%	(7)	(1,387)
November	\$ (1,387)	2,803	0.0892%	(1,722)	1,082	(305)	(846)	3.25%	(2)	(307)
December	\$ (307)	4,329	0.0892%	(3,523)	807	499	96	3.25%	0	500
January 2022	\$ 500	6,076	0.0892%	(4,862)	1,214	1,714	1,107	3.25%	3	1,717
February	\$ 1,717	4,743	0.0892%	(4,275)	468	2,185	1,951	3.25%	5	2,190
March	\$ 2,190	3,523	0.0892%	(3,059)	463	2,654	2,422	3.25%	7	2,660
April	\$ 2,660	1,990	0.0892%	(2,009)	(19)	2,641	2,651	3.25%	7	2,648
May	\$ 2,648	1,619	0.0892%	(462)	1,156	3,805	3,227	3.25%	9	3,813
June	\$ 3,813	1,362	0.0892%	(116)	1,246	5,060	4,436	3.25%	12	5,072
July	\$ 5,072	1,432	0.1098%	(220)	1,212	6,283	5,677	4.00%	19	6,302
Estimated August	\$ 6,302	1,814	0.1098%	(1,100)	714	7,016	6,659	4.00%	22	7,038
Estimated September	\$ 7,038	1,996	0.1098%	(1,200)	796	7,834	7,436	4.00%	25	7,859
Estimated October	\$ 7,859	3,540	0.1400%	(2,200)	1,340	9,199	8,529	6.25%	44	9,243

(1) Working Capital Allowance calculated by taking monthly Total Gas Costs from Schedule 4, Page 2, and multiplying by (9.30/366)\* prime interest rate.

Winter Season Sales Percentage	80.46%
Summer Season Sales Percentage	19.54%
Reconciliation Allocated to Winter Season	\$ 7,437
Reconciliation Allocated to Summer Season	\$ 1,807

**NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION  
 BAD DEBT EXPENSE - CALCULATION OF COLLECTION ALLOWANCE  
 August 2021 - October 2022**

**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 2021	(\$96,653)	28,289	(1,498)	26,791	(69,862)	(83,258)	3.25%	(225)	(70,088)
September	(\$70,088)	24,580	(1,487)	23,093	(46,995)	(58,541)	3.25%	(159)	(47,153)
October	(\$47,153)	5,278	(2,261)	3,017	(44,136)	(45,645)	3.25%	(124)	(44,260)
November	(\$44,260)	8,836	(8,894)	(58)	(44,318)	(44,289)	3.25%	(120)	(44,438)
December	(\$44,438)	14,798	(12,332)	2,465	(41,973)	(43,206)	3.25%	(117)	(42,090)
January 2022	(\$42,090)	(10,232)	(17,035)	(27,267)	(69,357)	(55,723)	3.25%	(151)	(69,508)
February	(\$69,508)	4,559	(14,971)	(10,412)	(79,920)	(74,714)	3.25%	(202)	(80,123)
March	(\$80,123)	10,087	(10,718)	(631)	(80,754)	(80,438)	3.25%	(218)	(80,972)
April	(\$80,972)	3,792	(7,032)	(3,240)	(84,212)	(82,592)	3.25%	(224)	(84,435)
May	(\$84,435)	3,982	835	4,817	(79,618)	(82,027)	3.25%	(222)	(79,840)
June	(\$79,840)	11,494	(3)	11,490	(68,350)	(74,095)	3.25%	(201)	(68,551)
July	(\$68,551)	15,551	50	15,601	(52,950)	(60,750)	4.00%	(203)	(53,152)
Estimated August	(\$53,152)	15,000	(850)	14,150	(39,002)	(46,077)	4.00%	(154)	(39,156)
Estimated September	(\$39,156)	15,000	(875)	14,125	(25,031)	(32,093)	4.00%	(107)	(25,138)
Estimated October	(\$25,138)	15,000	(1,000)	14,000	(11,138)	(18,138)	6.25%	(94)	(11,232)
Winter Season Allocation			95.00%						
Summer Season Allocation			5.00%						
Reconciliation Allocated to Winter Season			\$ (10,671)						
Reconciliation Allocated to Summer Season			\$ (562)						

**Northern Utilities, Inc. - New Hampshire Division**  
**Environmental Response Costs**  
**May 2021 - October 2022**

		<b>Beginning Balance</b>	<b>Firm Sales and Transportation (therms)</b>	<b>ERC Rate Recoveries /Passback</b>	<b>Current ERC Recoveries/ Passbacks</b>	<b>Ending Balance</b>
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	(act)	\$ 59,784	2,739,797	\$ 0.0061	\$ 16,722	\$ 43,062.12
September 2021	(act)	\$ 43,062	2,699,225	\$ 0.0061	\$ 16,475	\$ 26,586.85
October 2021	(act)	\$ 26,587	3,205,050	\$ 0.0061	\$ 19,518	\$ 7,068.90
November 2021	(act)	\$ 439,663 <sup>(1)</sup>	5,403,127	\$ 0.0059 <sup>(2)</sup>	\$ 31,069	\$ 408,593.38
December 2021	(act)	\$ 408,593	8,703,876	\$ 0.0056	\$ 48,743	\$ 359,849.98
January 2022	(act)	\$ 359,850	11,396,267	\$ 0.0056	\$ 63,820	\$ 296,030.31
February 2022	(act)	\$ 296,030	11,590,946	\$ 0.0056	\$ 64,913	\$ 231,117.39
March 2022	(act)	\$ 231,117	9,836,237	\$ 0.0056	\$ 55,086	\$ 176,030.99
April 2022	(act)	\$ 176,031	6,649,114	\$ 0.0056	\$ 37,236	\$ 138,795.15
May 2022	(act)	\$ 138,795	4,690,240	\$ 0.0056	\$ 26,265	\$ 112,529.85
June 2022	(act)	\$ 112,530	2,964,732	\$ 0.0056	\$ 16,612	\$ 95,917.63
July 2022	(act)	\$ 95,918	2,992,333	\$ 0.0056	\$ 14,181	\$ 81,736.95
August 2022	(est)	\$ 81,737	2,844,678	\$ 0.0056	\$ 15,930	\$ 65,807
September 2022	(est)	\$ 65,807	2,905,960	\$ 0.0056	\$ 16,273	\$ 49,533
October 2022	(est)	\$ 49,533	3,974,739	\$ 0.0056	\$ 22,259	\$ 27,275

(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 \$0.0056 and actual Firm Sales and Transportation (therms) at \$0.0061.

**NORTHERN UTILITIES  
NEW HAMPSHIRE DIVISION  
RLIARA Reconciliation  
May 2021 - October 2022**

		<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 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	Actual	\$ 37,744	\$ -	\$ 6,893	\$ 12,052	\$ 32,585	\$ 35,164	3.25%	\$ 95	\$ 32,680
September 2021	Actual	\$ 32,680	\$ -	\$ 6,893	\$ 11,873	\$ 27,700	\$ 30,190	3.25%	\$ 82	\$ 27,782
October 2021	Actual	\$ 27,782	\$ -	\$ 6,893	\$ 14,187	\$ 20,488	\$ 24,135	3.25%	\$ 65	\$ 20,554
November 2021	Actual	\$ 20,554	\$ 6,085	\$ 6,893	\$ 29,823	\$ 3,709	\$ 12,131	3.25%	\$ 33	\$ 3,742
December 2021	Actual	\$ 3,742	\$ 49,453	\$ (17,524)	\$ 52,223	\$ (16,552)	\$ (6,405)	3.25%	\$ (17)	\$ (16,570)
January 2022	Actual	\$ (16,570)	\$ 59,907	\$ 15,279	\$ 68,394	\$ (9,778)	\$ (13,174)	3.25%	\$ (36)	\$ (9,813)
February 2022	Actual	\$ (9,813)	\$ 65,169	\$ 15,279	\$ 69,548	\$ 1,087	\$ (4,363)	3.25%	\$ (12)	\$ 1,075
March 2022	Actual	\$ 1,075	\$ 69,903	\$ 15,279	\$ 59,016	\$ 27,242	\$ 14,159	3.25%	\$ 38	\$ 27,280
April 2022	Actual	\$ 27,280	\$ 49,438	\$ 15,279	\$ 39,734	\$ 52,263	\$ 39,772	3.25%	\$ 108	\$ 52,371
May 2022	Actual	\$ 52,371	\$ 23,931	\$ -	\$ 19,779	\$ 56,523	\$ 54,447	3.25%	\$ 147	\$ 56,671
June 2022	Actual	\$ 56,671	\$ -	\$ -	\$ 9,792	\$ 46,879	\$ 51,775	3.25%	\$ 140	\$ 47,019
July 2022	Actual	\$ 47,019	\$ -	\$ -	\$ 8,335	\$ 38,684	\$ 42,852	4.00%	\$ 143	\$ 38,827
August 2022	Est.	\$ 38,827	\$ -	\$ (61,116)	\$ 9,387	\$ (31,677)	\$ 3,575	4.00%	\$ 12	\$ (31,665)
September 2022	Est.	\$ (31,665)	\$ -	\$ -	\$ 9,590	\$ (41,254)	\$ (36,460)	4.00%	\$ (122)	\$ (41,376)
October 2022	Est.	\$ (41,376)	\$ -	\$ -	\$ 13,117	\$ (54,493)	\$ (47,934)	4.00%	\$ (160)	\$ (54,652)

(1) RLIAP renamed GAPRA and subsequently renamed GAP when Regulatory Assessments were removed to the RAAM.

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

	<u>Aug-21</u>	<u>Sep-21</u>	<u>Oct-21</u>	<u>Nov-21</u>	<u>Dec-21</u>	<u>Jan-22</u>	<u>Feb-22</u>	<u>Mar-22</u>	<u>Apr-22</u>	<u>May-22</u>	<u>Jun-22</u>	<u>Jul-22</u>	<u>TOTAL</u>
Forecast Bill Month Sales	90,987	90,776	107,884	342,850	554,368	761,365	806,334	611,422	457,594	270,287	147,721	105,641	4,347,230
Actual Sales	<u>92,750</u>	<u>93,004</u>	<u>113,565</u>	<u>264,805</u>	<u>524,192</u>	<u>727,242</u>	<u>775,272</u>	<u>623,867</u>	<u>382,680</u>	<u>239,103</u>	<u>118,454</u>	<u>92,074</u>	<u>4,047,008</u>
Difference	<u>1,763</u>	<u>2,228</u>	<u>5,681</u>	<u>(78,045)</u>	<u>(30,176)</u>	<u>(34,123)</u>	<u>13,698</u>	<u>12,444</u>	<u>(74,914)</u>	<u>(31,185)</u>	<u>(29,267)</u>	<u>(13,567)</u>	<u>(300,222)</u>
Normal Bill Month Actual Sales	<u>92,750</u>	<u>93,004</u>	<u>130,320</u>	<u>288,219</u>	<u>560,188</u>	<u>741,134</u>	<u>745,200</u>	<u>679,792</u>	<u>406,349</u>	<u>235,589</u>	<u>118,454</u>	<u>92,074</u>	<u>4,183,073</u>
Actual Sales	<u>92,750</u>	<u>93,004</u>	<u>113,565</u>	<u>264,805</u>	<u>524,192</u>	<u>727,242</u>	<u>775,272</u>	<u>623,867</u>	<u>382,680</u>	<u>239,103</u>	<u>118,454</u>	<u>92,074</u>	<u>4,047,008</u>
Weather Variance	<u>-</u>	<u>-</u>	<u>16,755</u>	<u>23,415</u>	<u>35,995</u>	<u>13,892</u>	<u>(30,072)</u>	<u>55,925</u>	<u>23,669</u>	<u>(3,514)</u>	<u>-</u>	<u>-</u>	<u>136,065</u>
Total Variance Excluding Weather (excl weather effect)	<u>1,763</u>	<u>2,228</u>	<u>22,435</u>	<u>(54,630)</u>	<u>5,820</u>	<u>(20,231)</u>	<u>(16,374)</u>	<u>68,370</u>	<u>(51,244)</u>	<u>(34,699)</u>	<u>(29,267)</u>	<u>(13,567)</u>	<u>(164,157)</u>
Variance-difference due to meter count													113,420
-difference in load pattern													<u>(413,641)</u>
Total Sales Variance													<u><u>(300,222)</u></u>

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

	<u>NORMAL MMBtu</u>			<u>METERS</u>		
	<u>2021-22</u>	<u>2021-22</u>	<u>Difference</u>	<u>2021-22</u>	<u>2021-22</u>	<u>Difference</u>
	<u>Forecast</u>	<u>Actual</u>		<u>Forecast</u>	<u>Actual</u>	
Res Heat	2,006,153	1,809,996	(196,157)	315,704	329,377	13,673
Res General	23,230	24,270	1,039	15,014	15,472	458
Total Res	2,029,383	1,834,265	(195,117)	330,718	344,849	14,131
G-40	972,370	891,276	(81,093)	53,776	56,201	2,425
G-50	148,423	150,543	2,119	8,875	9,154	279
G-41	737,039	670,532	(66,506)	4,942	4,547	(395)
G-51	241,080	256,939	15,859	1,891	1,754	(137)
G-42	145,782	174,692	28,909	131	162	32
G-52	73,153	68,761	(4,392)	29	36	7
Total C & I	2,317,847	2,212,743	(105,104)	69,643	71,854	2,211
Total Company	4,347,230	4,047,008	(300,222)	400,361	416,703	16,342

	<u>NORMAL AVERAGE USE</u>			<u>Change in Sales Due to</u>		<u>Total Chg</u>	<u>%</u>
	<u>2021-22</u>	<u>2021-22</u>	<u>Difference</u>	<u>Change In:</u>			
	<u>Forecast</u>	<u>Actual</u>			<u>Meter Count</u>	<u>Load Pattern</u>	<u>MMBtu</u>
Res Heat	6.35	5.50	(0.86)	86,886	(283,042)	(196,157)	-9.78%
Res General	1.55	1.57	0.02	709	331	1,039	4.47%
Total Res	7.90	7.06	(0.84)	87,594	(282,712)	(195,117)	-9.61%
G-40	18.08	15.86	(2.22)	43,844	(124,937)	(81,093)	-8.34%
G-50	16.72	16.45	(0.28)	4,662	(2,542)	2,119	1.43%
G-41	149.14	147.47	(1.67)	(58,909)	(7,597)	(66,506)	-9.02%
G-51	127.52	146.49	18.97	(17,407)	33,265	15,859	6.58%
G-42	1,117.10	1,078.34	(38.76)	35,189	(6,279)	28,909	19.83%
G-52	2,544.45	1,910.03	(634.42)	18,447	(22,839)	(4,392)	-6.00%
Total C & I	33.28	30.79	(2.49)	25,825	(130,930)	(105,104)	-4.53%
Total Company	10.86	9.71	(1.15)	113,420	(413,641)	(300,222)	-6.91%

Northern Utilities, Inc.  
Winter and Summer Season Reconciliations

Section A

1	April 30, 2022 COG Balance - All components		
2	Actual	-\$5,786,471	Sum of Schedule 2, Atts A & B
3	Target Balance	-\$5,202,006	Table 3 - Monthly COG Reports
4	Total Over-collection - All Components	-\$584,465	LN 2 - LN 1
5	Less Working Capital Balance	\$2,648	Attachment A
6	Less Bad Debt Balance	-\$84,435	Attachment B
7			
8	Demand & Commodity Over-collection	-\$502,678	LN 4 - Ln 5 - LN 6
9			
10	AMA Adjustment	-\$2,247,007	LN 26
11			
12	Interest	-\$7,490	LN 20 - Section B October
13			
14	Winter Demand & Commodity Balance	-\$2,757,176	LN 8 + LN 10 + LN 12
15			
16	Annual Reconciliation Balance	-\$2,663,062	Schedule 1
17			
18	Summer Reconciliation Balance	\$94,114	LN 16 - LN 14
19			
20	Monthly AMA Revenue		
21	April 21 to March 22	\$339,731	Annual Revenue / 12
22	April 22 to March 23	\$714,232	Annual Revenue / 12
23			
24	Monthly Increase in AMA Revenue	\$374,501	LN 22- LN 21
25			
26	AMA revenue impact May to Oct	\$2,247,007	LN 24 * 6

Section B  
AMA Adjustment & Interest

	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Total
Starting balance	\$0.00	\$1,014.27	\$2,028.55	\$3,276.89	\$4,525.22	\$5,773.56	
AMA Adjustment	\$374,501	\$374,501	\$374,501	\$374,501	\$374,501	\$374,501	\$2,247,007
Interest Rate	3.25%	3.25%	4.00%	4.00%	4.00%	5.50%	
Monthly Interest	\$1,014.27	\$1,014.27	\$1,248.34	\$1,248.34	\$1,248.34	\$1,716.46	
Total interest	\$1,014.27	\$2,028.55	\$3,276.89	\$4,525.22	\$5,773.56	\$7,490.02	

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

Sales Revenues	Oct-22	Winter						Summer					
		(Forecast) Nov-22	(Forecast) Dec-22	(Forecast) Jan-23	(Forecast) Feb-23	(Forecast) Mar-23	(Forecast) Apr-23	(Forecast) May-23	(Forecast) Jun-23	(Forecast) Jul-23	(Forecast) Aug-23	(Forecast) Sep-23	(Forecast) Oct-23
<b>Volumes</b>													
Residential Heat & Non Heat		2,220,775	3,207,847	3,784,334	3,243,890	2,759,086	1,590,808	788,321	510,680	436,331	439,981	488,035	985,408
Sales HLF Classes		382,966	553,184	652,597	559,399	475,796	274,330	476,611	308,752	263,801	266,008	295,061	595,768
Sales LLF Classes		2,088,065	3,016,150	3,558,187	3,050,039	2,594,207	1,495,743	598,639	387,802	331,343	334,115	370,606	748,304
<b>Total</b>		4,691,806	6,777,181	7,995,118	6,853,328	5,829,089	3,360,882	1,863,572	1,207,233	1,031,474	1,040,103	1,153,702	2,329,480
<b>Rates</b>													
Residential Heat & Non Heat CGA		\$ 1.1289	\$ 1.1289	\$ 1.1289	\$ 1.1289	\$ 1.1289	\$ 1.1289	\$ 0.6916	\$ 0.6916	\$ 0.6916	\$ 0.6916	\$ 0.6916	\$ 0.6916
Sales HLF Classes CGA		\$ 1.0536	\$ 1.0536	\$ 1.0536	\$ 1.0536	\$ 1.0536	\$ 1.0536	\$ 0.6331	\$ 0.6331	\$ 0.6331	\$ 0.6331	\$ 0.6331	\$ 0.6331
Sales LLF Classes CGA		\$ 1.1428	\$ 1.1428	\$ 1.1428	\$ 1.1428	\$ 1.1428	\$ 1.1428	\$ 0.7383	\$ 0.7383	\$ 0.7383	\$ 0.7383	\$ 0.7383	\$ 0.7383
<b>Revenues</b>													
Residential Heat & Non Heat		\$ (2,507,033)	\$ (3,621,339)	\$ (4,272,134)	\$ (3,662,027)	\$ (3,114,733)	\$ (1,795,863)	\$ (545,203)	\$ (353,186)	\$ (301,766)	\$ (304,291)	\$ (337,525)	\$ (681,508)
Sales HLF Classes		\$ (403,493)	\$ (582,834)	\$ (687,576)	\$ (589,383)	\$ (501,299)	\$ (289,034)	\$ (301,743)	\$ (195,471)	\$ (167,012)	\$ (168,410)	\$ (186,803)	\$ (377,181)
Sales LLF Classes		\$ (2,386,240)	\$ (3,446,857)	\$ (4,066,296)	\$ (3,485,585)	\$ (2,964,660)	\$ (1,709,336)	\$ (441,975)	\$ (286,314)	\$ (244,630)	\$ (246,677)	\$ (273,619)	\$ (552,473)
<b>Total Sales</b>		\$ (5,296,767)	\$ (7,651,030)	\$ (9,026,007)	\$ (7,736,995)	\$ (6,580,691)	\$ (3,794,233)	\$ (1,288,921)	\$ (834,971)	\$ (713,409)	\$ (719,377)	\$ (797,947)	\$ (1,611,162)
<b>Gas Costs and Credits</b>													
<b>Demand Costs (net of Capacity Assignment)</b>													
Pipeline		\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837	\$ 617,837
Storage		\$ 645,439	\$ 645,439	\$ 645,439	\$ 645,439	\$ 645,439	\$ 701,106	\$ 699,734	\$ 699,734	\$ 699,734	\$ 699,734	\$ 699,734	\$ 699,734
On-system Peaking		\$ 196,790	\$ 196,790	\$ 196,790	\$ 196,790	\$ 196,790	\$ 83,527	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Off-System Peaking		\$ 752,299	\$ 752,299	\$ 752,299	\$ 752,299	\$ 752,299	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Demand Costs</b>		\$ 2,212,365	\$ 2,212,365	\$ 2,212,365	\$ 2,212,365	\$ 2,212,365	\$ 1,402,470	\$ 1,317,571	\$ 1,317,571	\$ 1,317,571	\$ 1,317,571	\$ 1,317,571	\$ 1,317,571
<b>Asset Management and Capacity Release</b>													
NUI AMA Revenue		\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)
NUI Capacity Release		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>NUI AMA Rev &amp; Cap. Release Subtotal</b>		\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)	\$ (1,744,550)
<b>NH AMA Revenue</b>		\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)
<b>NH Capacity Release</b>		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>NH Total Asset Management and Capacity Release</b>		\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)	\$ (714,232)
<b>Re-entry Rate &amp; Conversion Rate Revenue</b>		\$ (1,000)	\$ (1,000)	\$ (1,000)	\$ (1,000)	\$ (1,000)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Net Demand Costs</b>		\$ 1,497,133	\$ 1,497,133	\$ 1,497,133	\$ 1,497,133	\$ 1,497,133	\$ 688,238	\$ 603,339	\$ 603,339	\$ 603,339	\$ 603,339	\$ 603,339	\$ 603,339
<b>NUI Commodity Costs</b>													
NUI Total Pipeline Volumes		\$ 577,049	\$ 1,131,026	\$ 1,155,723	\$ 1,098,878	\$ 1,043,990	\$ 1,029,309	\$ 576,044	\$ 394,175	\$ 355,581	\$ 356,908	\$ 382,828	\$ 657,694
Pipeline Costs Modeled in Sendout™		\$ 4,653,001	\$ 10,571,190	\$ 13,045,845	\$ 12,266,039	\$ 8,070,275	\$ 5,398,884	\$ 2,798,684	\$ 1,860,832	\$ 1,715,991	\$ 1,710,505	\$ 1,714,809	\$ 3,185,675
NYMEX Price Used for Forecast		\$ 7.9010	\$ 8.0350	\$ 8.1150	\$ 7.8180	\$ 6.7050	\$ 5.3520	\$ 5.2190	\$ 5.2780	\$ 5.3400	\$ 5.3570	\$ 5.3450	\$ 5.4110
NYMEX Price Used for Update		\$ 7.9010	\$ 8.0350	\$ 8.1150	\$ 7.8180	\$ 6.7050	\$ 5.3520	\$ 5.2190	\$ 5.2780	\$ 5.3400	\$ 5.3570	\$ 5.3450	\$ 5.4110
Increase/(Decrease) NYMEX Price		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Increase/(Decrease) in Pipeline Costs		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Updated Pipeline Costs</b>		\$ 4,653,001	\$ 10,571,190	\$ 13,045,845	\$ 12,266,039	\$ 8,070,275	\$ 5,398,884	\$ 2,798,684	\$ 1,860,832	\$ 1,715,991	\$ 1,710,505	\$ 1,714,809	\$ 3,185,675
New Hampshire Allocated Percentage		37.57%	38.38%	38.18%	37.58%	36.63%	32.91%	32.56%	30.79%	29.14%	29.27%	30.29%	35.66%
<b>NH Updated Pipeline Costs</b>		\$ 1,747,920	\$ 4,057,370	\$ 4,981,153	\$ 4,610,118	\$ 2,956,075	\$ 1,776,991	\$ 911,334	\$ 572,880	\$ 500,037	\$ 500,749	\$ 519,400	\$ 1,136,170
<b>NH Peaking Volumes</b>													
NH Peaking Costs Modeled in Sendout													
Change in NYMEX Price													
Change in Peaking Costs													
<b>NH Updated Peaking Costs</b>													
<b>NH Commodity Costs</b>													
Pipeline		\$ 1,747,920	\$ 4,057,370	\$ 4,981,153	\$ 4,610,118	\$ 2,956,075	\$ 1,776,991	\$ 911,334	\$ 572,880	\$ 500,037	\$ 500,749	\$ 519,400	\$ 1,136,170
Storage		\$ 1,899,820	\$ 1,819,825	\$ 2,116,343	\$ 2,008,342	\$ 1,530,128	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Peaking		\$ 12,665	\$ 207,187	\$ 1,492,494	\$ 374,558	\$ 38,253	\$ 31,486	\$ 28,957	\$ 26,294	\$ 25,718	\$ 25,837	\$ 25,362	\$ 30,741
<b>Total Commodity Costs</b>		\$ 3,660,406	\$ 6,084,382	\$ 8,589,990	\$ 6,993,018	\$ 4,524,456	\$ 1,808,478	\$ 940,290	\$ 599,174	\$ 525,755	\$ 526,586	\$ 544,761	\$ 1,166,911
<b>Inventory Finance Charge</b>		\$ 799	\$ 1,243	\$ 1,507	\$ 1,281	\$ 1,038	\$ 514	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Anticipated Direct Cost of Gas</b>		\$ 5,158,338	\$ 7,582,758	\$ 10,088,629	\$ 8,491,433	\$ 6,022,627	\$ 2,497,230	\$ 1,543,629	\$ 1,202,513	\$ 1,129,093	\$ 1,129,924	\$ 1,148,100	\$ 1,770,249



**Northern Utilities  
 NEW HAMPSHIRE (Over) / Undercollection Anal**

<b>Sales Revenues</b>				
Volumes	Winter	Summer	Prior Period	Total
Residential Heat & Non Heat				20,455,496
Sales HLF Classes				5,104,273
Sales LLF Classes				18,573,201
<b>Total</b>	<b>35,507,405</b>	<b>8,625,565</b>		<b>44,132,969</b>
<b>Rates</b>				
Residential Heat & Non Heat CGA				
Sales HLF Classes CGA				
Sales LLF Classes CGA				
<b>Revenues</b>				
Residential Heat & Non Heat				\$ (21,496,609)
Sales HLF Classes				\$ (4,450,239)
Sales LLF Classes				\$ (20,104,661)
<b>Total Sales</b>	<b>\$ (40,085,722)</b>	<b>\$ (5,965,786)</b>		<b>\$ (46,051,509)</b>
<b>Gas Costs and Credits</b>				
				Total
<b>Demand Costs (net of Capacity Assignment)</b>				
Pipeline	\$ 3,707,022	\$ 3,707,022		\$ 7,414,044
Storage	\$ 3,928,299	\$ 4,198,402		\$ 8,126,701
On-system Peaking	\$ 1,067,478	\$ -		\$ 1,067,478
Off-System Peaking	\$ 3,761,497	\$ -		\$ 3,761,497
<b>Total Demand Costs</b>	<b>\$ 12,464,296</b>	<b>\$ 7,905,424</b>		<b>\$ 20,369,720</b>
<b>Asset Management and Capacity Release</b>				
NUI AMA Revenue				\$ (20,934,600)
NUI Capacity Release				\$ -
NUI AMA Rev & Cap. Release Subtotal				\$ -
NH AMA Revenue				\$ (8,570,786)
NH Capacity Release				\$ -
<b>NH Total Asset Management and Capacity Release</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ (8,570,786)</b>
Re-entry Rate & Conversion Rate Revenue	\$ (5,000)	\$ -		\$ (5,000)
<b>Net Demand Costs</b>	<b>\$ 8,173,903</b>	<b>\$ 3,620,031</b>		<b>\$ 11,793,935</b>
<b>NUI Commodity Costs</b>				
NUI Total Pipeline Volumes				
Pipeline Costs Modeled in Sendout™				
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				
<b>NH Updated Pipeline Costs</b>				<b>\$ 24,270,196</b>
<b>NH Peaking Costs</b>				
NH Peaking Volumes				
NH Peaking Costs Modeled in Sendout				
Change in NYMEX Price				
Change in Peaking Costs				
<b>NH Updated Peaking Costs</b>				<b>\$ -</b>
<b>NH Commodity Costs</b>				
Pipeline				\$ 24,270,196
Storage				\$ 9,374,458
Peaking				\$ 2,319,552
<b>Total Commodity Costs</b>	<b>\$ 31,660,730</b>	<b>\$ 4,303,477</b>		<b>\$ 35,964,206</b>
Inventory Finance Charge	\$ 6,382	\$ -		\$ 6,382
<b>Total Anticipated Direct Cost of Gas</b>	<b>\$ 39,841,015</b>	<b>\$ 7,923,508</b>		<b>\$ 47,764,523</b>

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

	Oct-22	Winter						Summer					
		(Forecast) Nov-22	(Forecast) Dec-22	(Forecast) Jan-23	(Forecast) Feb-23	(Forecast) Mar-23	(Forecast) Apr-23	(Forecast) May-23	(Forecast) Jun-23	(Forecast) Jul-23	(Forecast) Aug-23	(Forecast) Sep-23	(Forecast) Oct-23
Working Capital													
Total Anticipated Direct Cost of Gas		\$ 5,158,338	\$ 7,582,758	\$ 10,088,629	\$ 8,491,433	\$ 6,022,627	\$ 2,497,230	\$ 1,543,629	\$ 1,202,513	\$ 1,129,093	\$ 1,129,924	\$ 1,148,100	\$ 1,770,249
Working Capital Percentage		0.1398%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%	0.14%
Working Capital Allowance		\$ 7,209	\$ 10,597	\$ 14,099	\$ 11,867	\$ 8,417	\$ 3,490	\$ 2,157	\$ 1,681	\$ 1,578	\$ 1,579	\$ 1,605	\$ 2,474
Beginning Period Working Capital Balance		\$ 9,243	\$ 16,519	\$ 27,230	\$ 41,508	\$ 53,622	\$ 62,340	\$ 66,164	\$ 68,671	\$ 70,714	\$ 72,664	\$ 74,626	\$ 76,623
End of Period Working Capital Allowance		\$ 16,452	\$ 27,116	\$ 41,329	\$ 53,375	\$ 62,039	\$ 65,830	\$ 68,321	\$ 70,352	\$ 72,292	\$ 74,243	\$ 76,230	\$ 79,097
Interest		\$ 67	\$ 114	\$ 179	\$ 247	\$ 301	\$ 334	\$ 350	\$ 362	\$ 372	\$ 383	\$ 393	\$ 406
End of period with Interest	\$ 9,243	\$ 16,519	\$ 27,230	\$ 41,508	\$ 53,622	\$ 62,340	\$ 66,164	\$ 68,671	\$ 70,714	\$ 72,664	\$ 74,626	\$ 76,623	\$ 79,503
Bad Debt													
Projected Bad Debt	\$ -	\$ 20,260.65	\$ 20,260.65	\$ 20,260.65	\$ 20,260.65	\$ 20,260.65	\$ 20,260.65	\$ 2,846.52	\$ 2,846.52	\$ 2,846.52	\$ 2,846.52	\$ 2,846.52	\$ 2,846.52
Beginning Period Bad Debt Balance	\$ (11,232)	\$ 9,022	\$ 29,383	\$ 49,849	\$ 70,422	\$ 91,103	\$ 111,890	\$ 115,327	\$ 118,782	\$ 122,254	\$ 125,745	\$ 129,254	\$ 129,254
End of Period Bad Debt Balance	\$ 9,028	\$ 29,283	\$ 49,644	\$ 70,110	\$ 90,683	\$ 111,363	\$ 114,737	\$ 118,174	\$ 121,628	\$ 125,101	\$ 128,592	\$ 132,100	\$ 132,100
Interest	\$ (6)	\$ 100	\$ 206	\$ 312	\$ 420	\$ 527	\$ 590	\$ 608	\$ 626	\$ 644	\$ 662	\$ 681	\$ 681
End of Period Bad Debt Balance with Interest	\$ (11,232)	\$ 9,022	\$ 29,383	\$ 49,849	\$ 70,422	\$ 91,103	\$ 111,890	\$ 115,327	\$ 118,782	\$ 122,254	\$ 125,745	\$ 129,254	\$ 132,781
Local Production and Storage Capacity		\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ 35,756	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Miscellaneous Overhead		\$ 82,048	\$ 82,048	\$ 82,048	\$ 82,048	\$ 82,048	\$ 82,048	\$ 19,931	\$ 19,931	\$ 19,931	\$ 19,931	\$ 19,931	\$ 19,931
Gas Cost Other than Bad Debt and Working Capital Over/Under Collection													
Beginning Balance Over/Under Collection	\$ (2,663,062)	\$ (2,663,062)	\$ (2,697,610)	\$ (2,661,999)	\$ (1,492,362)	\$ (625,622)	\$ (1,070,287)	\$ (2,258,131)	\$ (1,994,537)	\$ (1,616,444)	\$ (1,188,113)	\$ (762,701)	\$ (395,626)
Net Costs - Revenues	\$ (20,624)	\$ 49,532	\$ 1,180,427	\$ 872,242	\$ (440,260)	\$ (1,179,199)	\$ 274,640	\$ 387,473	\$ 435,616	\$ 430,478	\$ 370,084	\$ 370,084	\$ 179,019
Ending Balance before Interest	\$ (2,683,686)	\$ (2,648,077)	\$ (1,481,572)	\$ (620,121)	\$ (1,065,882)	\$ (2,249,486)	\$ (1,983,491)	\$ (1,607,064)	\$ (1,180,828)	\$ (757,634)	\$ (392,617)	\$ (216,606)	\$ (216,606)
Average Balance	\$ (2,673,374)	\$ (2,672,844)	\$ (2,071,785)	\$ (1,056,241)	\$ (845,752)	\$ (1,659,886)	\$ (2,120,811)	\$ (1,800,801)	\$ (1,398,636)	\$ (972,874)	\$ (577,659)	\$ (306,116)	\$ (306,116)
Interest Rate	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
Interest Expense	\$ (13,924)	\$ (13,921)	\$ (10,791)	\$ (5,501)	\$ (4,405)	\$ (8,645)	\$ (11,046)	\$ (9,379)	\$ (7,285)	\$ (5,067)	\$ (3,009)	\$ (1,594)	\$ (1,594)
Ending Balance Incl Interest Expense	\$ (2,663,062)	\$ (2,697,610)	\$ (2,661,999)	\$ (1,492,362)	\$ (625,622)	\$ (1,070,287)	\$ (2,258,131)	\$ (1,994,537)	\$ (1,616,444)	\$ (1,188,113)	\$ (762,701)	\$ (395,626)	\$ (218,201)
<b>Total Over/Under Collection Ending Balance</b>	\$ (2,665,051)	\$ (2,672,068)	\$ (2,605,386)	\$ (1,401,005)	\$ (501,578)	\$ (916,844)	\$ (2,080,077)	\$ (1,810,539)	\$ (1,426,948)	\$ (993,194)	\$ (562,331)	\$ (189,749)	\$ (5,917)
<b>Total Indirect Cost of Gas</b>	\$ (2,665,051)	\$ 131,411	\$ 134,954	\$ 141,758	\$ 144,990	\$ 142,797	\$ 133,771	\$ 14,830	\$ 16,049	\$ 18,070	\$ 20,317	\$ 22,429	\$ 24,744
<b>Total Cost of Gas</b>	\$ (2,665,051)	\$ 5,289,749	\$ 7,717,712	\$ 10,230,387	\$ 8,636,423	\$ 6,165,424	\$ 2,631,001	\$ 1,558,459	\$ 1,218,562	\$ 1,147,163	\$ 1,150,241	\$ 1,170,529	\$ 1,794,993
<b>Total Interest</b>	\$ -	\$ (13,863)	\$ (13,708)	\$ (10,406)	\$ (4,942)	\$ (3,684)	\$ (7,784)	\$ (10,105)	\$ (8,409)	\$ (6,286)	\$ (4,040)	\$ (1,953)	\$ (508)

**Northern Utilities**  
**NEW HAMPSHIRE (Over) / Undercollection Anal**

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	Winter	Summer	Prior Period	Total
Working Capital				
Total Anticipated Direct Cost of Gas				\$ 47,764,523
Working Capital Percentage				
Working Capital Allowance	\$ 55,679	\$ 11,073	\$ 9,243	\$ 75,996
Beginning Period Working Capital Balance				
End of Period Working Capital Allowance				
Interest	\$ 1,241	\$ 2,266		\$ 3,507
End of period with Interest				
Bad Debt				
Projected Bad Debt	\$ 121,564	\$ 17,079	\$ (11,232)	\$ 127,411
Beginning Period Bad Debt Balance				
End of Period Bad Debt Balance				
Interest	\$ 1,559	\$ 3,811		\$ 5,370
End of Period Bad Debt Balance with Interest				
Local Production and Storage Capacity				\$ 214,538
				\$ -
Miscellaneous Overhead				\$ 611,875
Gas Cost Other than Bad Debt and Working Capital Over/L				
Beginning Balance Over/Under Collection				\$ (19,426,493)
Net Costs - Revenues				\$ 2,539,428
Ending Balance before Interest				\$ (16,887,065)
Average Balance				\$ (18,156,779)
Interest Rate				
Interest Expense				\$ (94,567)
Ending Balance Incl Interest Expense			\$ (2,663,062)	
<b>Total Over/Under Collection Ending Balance</b>				
<b>Total Indirect Cost of Gas</b>	\$ 829,682	\$ 116,438	\$ (2,665,051)	\$ (1,718,932)
<b>Total Cost of Gas</b>	\$ 40,670,697	\$ 8,039,946	\$ (2,665,051)	\$ 46,045,592
<b>Total Interest</b>	\$ (54,387)	\$ (31,303)		\$ (85,689)

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

Anticipated Cost of Gas

New Hampshire Division  
Period Covered: November 1, 2022 - April 31, 2023

<b>Column A</b>	<b>Column B</b>	<b>Column C</b>
1 <b><u>ANTICIPATED DIRECT COST OF GAS</u></b>		
2 <b>Purchased Gas for Sales Service:</b>		
3 Demand Costs:	\$ 6,358,704	
4 Supply Costs:	\$ 20,129,627	
5		
6 <b>Storage &amp; Peaking Gas for Sales Service:</b>		
7 Demand, Capacity:	\$ 12,558,149	
8 Commodity Costs:	\$ 11,531,102	
9		
10 <b>Inventory Finance Charge</b>	\$ 6,382	
11		
12 <b>Capacity Release</b>	\$ (8,570,786)	
13		
14 <b>Re-entry Rate &amp; Conversion Rate Revenues</b>	\$ (5,000)	
15		
16 <b>Total Anticipated Direct Cost of Gas</b>		\$ 42,008,180
17		
18 <b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>		
19 <b>Adjustments:</b>		
20 Prior Period Under/(Over) Collection	\$ (2,757,176)	
21 Interest	\$ (54,387)	
22 Refunds	\$ -	
23 <u>Interruptible Margins</u>	\$ -	
24 Total Adjustments		\$ (2,811,562)
25		
26 <b>Working Capital:</b>		
27 Total Anticipated Direct Cost of Gas	\$ 42,008,180	
28 Working Capital Allowance Percentage (9.30 [lag days]/366* prime rate)	<u>0.1588%</u>	
29 Working Capital Allowance	\$ 66,714	
30		
31 Plus: Working Capital Reconciliation (Acct 173)	<u>\$ 7,437</u>	
32		
33 Total Working Capital Allowance		\$ 74,150
34		
35 <b>Bad Debt:</b>		
36 Bad Debt Allowance	\$ 121,564	
37 Plus: Bad Debt Reconciliation (Acct 173)	<u>\$ (10,671)</u>	
38 Total Bad Debt Allowance		\$ 110,893
39		
40 <b>Local Production and Storage Capacity</b>		\$ 214,538
41		
42 <b>Miscellaneous Overhead-80.46% Allocated to Winter Season</b>		<u>\$ 492,287</u>
43		
44 <b>Total Anticipated Indirect Cost of Gas</b>		\$ (1,919,694)
45		
46 <b>Total Cost of Gas</b>		<u>\$ 40,088,486</u>

(\*) Prime Rate is 6.25%

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

**Summary**

Anticipated Cost of Gas

New Hampshire Division  
 Period Covered: November 1, 2022 - April 31, 2023

<b>Column A</b>	<b>Column D</b>
1 <b><u>ANTICIPATED DIRECT COST OF GAS</u></b>	
2 <b>Purchased Gas for Sales Service:</b>	
3 Demand Costs:	Attachment NUI-CAK-2, LN 71 + LN 75
4 Supply Costs:	Attachment NUI-CAK-6, LN 14
5	
6 <b>Storage &amp; Peaking Gas for Sales Service:</b>	
7 Demand, Capacity:	Attachment NUI-CAK-2, LN 73 + LN 74
8 Commodity Costs:	Attachment NUI-CAK-6, LN 15 + LN 16
9	
10 <b>Inventory Finance Charge</b>	Attachment NUI-CAK-6, LN 17
11	
12 <b>Capacity Release</b>	-(Attachment NUI-CAK-2, LN 77)
13	
14 <b>Re-entry Rate &amp; Conversion Rate Revenues</b>	Attachment NUI-CAK-2, LN 79
15	
16 <b>Total Anticipated Direct Cost of Gas</b>	Sum ( LN 3 : LN 14 )
17	
18 <b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>	
19 <b>Adjustments:</b>	
20 Prior Period Under/(Over) Collection	Attachment NUI-CAK-10, Page 1
21 Interest	Attachment NUI-CAK-12, LN 94: Total
22 Refunds	
23 <u>Interruptible Margins</u>	-(Attachment NUI-CAK-2, LN 78)
24 Total Adjustments	Sum ( LN 20 : LN 23 )
25	
26 <b>Working Capital:</b>	
27 Total Anticipated Direct Cost of Gas	LN 16
28 Working Capital Allowance Percentage (9.30 [lag days]/366* primeTariff - 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 <b>Bad Debt:</b>	
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 <b>Local Production and Storage Capacity</b>	Attachment NUI-CAK-2, LN 84
41	
42 <b>Miscellaneous Overhead-80.46% Allocated to Winter Season</b>	Attachment NUI-CAK-2, LN 83
43	
44 <b>Total Anticipated Indirect Cost of Gas</b>	Sum ( LN 24 : LN 42 )
45	
46 <b>Total Cost of Gas</b>	LN 44 + LN 16

(\*) Prime Rate is 6.25%

48 CALCULATION OF FIRM SALES COST OF GAS RATE  
 49 Period Covered: November 1, 2022 - April 31, 2023

51	Column A	Column B	Column C
52			
53	Total Anticipated Direct Cost of Gas	\$ 42,008,180	
54	Projected Prorated Sales (11/01/22 - 04/30/23)	35,507,405	
55	<b>Direct Cost of Gas Rate</b>		\$ 1.1831 per therm
56			
57	<b>Demand Cost of Gas Rate</b>	\$ 10,341,068	\$ 0.2912 per therm
58	<b>Commodity Cost of Gas Rate</b>	\$ 31,667,112	\$ 0.8918 per therm
59	<b>Total Direct Cost of Gas Rate</b>	\$ 42,008,180	\$ 1.1830 per therm
60			
61	Total Anticipated Indirect Cost of Gas	\$ (1,919,694)	
62	Projected Prorated Sales (11/01/22 - 04/30/23)	35,507,405	
63	<b>Indirect Cost of Gas</b>		\$ (0.0541) per therm
64			
65			
66	<b>TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/22</b>		<b>\$ 1.1289 per therm</b>
67			
68	<b>RESIDENTIAL COST OF GAS RATE - 11/01/22</b>	<b>COGwr</b>	<b>\$ 1.1289 per therm</b>
69		Maximum (COG+25%)	\$ 1.4111
70			
71			
72	<b>COM/IND LOW WINTER USE COST OF GAS RATE - 11/01/22</b>	<b>COGwl</b>	<b>\$ 1.0536 per therm</b>
73		Maximum (COG+25%)	\$ 1.3170
74			
75	C&I HLF Demand Costs Allocated per SMBA	\$ 569,531	
76	PLUS: Residential Demand Reallocation to C&I HLF	\$ 8,570	
77	C&I HLF Total Adjusted Demand Costs	\$ 578,101	
78	C&I HLF Projected Prorated Sales (11/01/22 - 04/30/23)	2,898,272	
79	<b>Demand Cost of Gas Rate</b>	<b>\$ 0.1995</b>	
80			
81	C&I HLF Commodity Costs Allocated per SMBA	\$ 2,634,583	
82	PLUS: Residential Commodity Reallocation to C&I HLF	\$ (2,272)	
83	C&I HLF Total Adjusted Commodity Costs	\$ 2,632,312	
84	C&I HLF Projected Prorated Sales (11/01/22 - 05/30/23)	2,898,272	
85	<b>Commodity Cost of Gas Rate</b>	<b>\$ 0.9082</b>	
86			
87	<b>Indirect Cost of Gas</b>	<b>\$ (0.0541)</b>	
88			
89	<b>Total C&amp;I HLF Cost of Gas Rate</b>	<b>\$ 1.0536</b>	
90			
91			
92	<b>COM/IND HIGH WINTER USE COST OF GAS RATE - 11/01/22</b>	<b>COGwh</b>	<b>\$ 1.1428 per therm</b>
93		Maximum (COG+25%)	\$ 1.4285
94			
95	C&I LLF Demand Costs Allocated per SMBA	\$ 4,796,055	
96	PLUS: Residential Demand Reallocation to C&I LLF	\$ 72,168	
97	C&I LLF Total Adjusted Demand Costs	\$ 4,868,223	
98	C&I LLF Projected Prorated Sales (11/01/22 - 04/30/23)	15,802,392	
99	<b>Demand Cost of Gas Rate</b>	<b>\$ 0.3081</b>	
100			
101	C&I LLF Commodity Costs Allocated per SMBA	\$ 14,057,910	
102	PLUS: Residential Commodity Reallocation to C&I LLF	\$ (12,123)	
103	C&I LLF Total Adjusted Commodity Costs	\$ 14,045,788	
104	C&I LLF Projected Prorated Sales (11/01/22 - 04/30/23)	15,802,392	
105	<b>Commodity Cost of Gas Rate</b>	<b>\$ 0.8888</b>	
106			
107	<b>Indirect Cost of Gas</b>	<b>\$ (0.0541)</b>	
108			
109	<b>Total C&amp;I LLF Cost of Gas Rate</b>	<b>\$ 1.1428</b>	

48	CALCULATION OF FIRM SALES COST OF GAS RATE	
49	Period Covered: November 1, 2022 - April 31, 2023	
50		
51	<b>Column A</b>	<b>Column D</b>
52		
53	Total Anticipated Direct Cost of Gas	LN 16
54	Projected Prorated Sales (11/01/22 - 04/30/23)	Attachment NUI-CAK-3, LN 11
55	<b>Direct Cost of Gas Rate</b>	LN 53 / LN 54
56		
57	<b>Demand Cost of Gas Rate</b>	Column B : SUM ( LN 3 , LN 7 , LN 12 ) : COLUMN C: LN 5
58	<b>Commodity Cost of Gas Rate</b>	Column B : SUM ( LN 4 , LN 8 ) : COLUMN C: LN 58 / LN 5
59	<b>Total Direct Cost of Gas Rate</b>	SUM ( LN 57 : LN 58 )
60		
61	Total Anticipated Indirect Cost of Gas	Column B : LN 44
62	Projected Prorated Sales (11/01/22 - 04/30/23)	Column B : LN 54
63	<b>Indirect Cost of Gas</b>	LN 61 / LN 62
64		
65		
66	<b>TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/22</b>	LN 59 + LN 63
67		
68	<b>RESIDENTIAL COST OF GAS RATE - 11/01/22</b>	LN 66
69		LN 68 * 1.25
70		
71		
72	<b>COM/IND LOW WINTER USE COST OF GAS RATE - 11/01/22</b>	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 (11/01/22 - 04/30/23)	Attachment NUI-CAK-3, LN 14
79	<b>Demand Cost of Gas Rate</b>	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 (11/01/22 - 05/30/23)	LN 78
85	<b>Commodity Cost of Gas Rate</b>	LN 83 / LN 84
86		
87	<b>Indirect Cost of Gas</b>	LN 63
88		
89	<b>Total C&amp;I HLF Cost of Gas Rate</b>	Sum ( LN 79, LN 85, LN 87 )
90		
91		
92	<b>COM/IND HIGH WINTER USE COST OF GAS RATE - 11/01/22</b>	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 (11/01/22 - 04/30/23)	Attachment NUI-CAK-3, LN 15
99	<b>Demand Cost of Gas Rate</b>	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 (11/01/22 - 04/30/23)	LN 98
105	<b>Commodity Cost of Gas Rate</b>	LN 103 / LN 104
106		
107	<b>Indirect Cost of Gas</b>	LN 63
108		
109	<b>Total C&amp;I LLF Cost of Gas Rate</b>	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, 2023 - October 31, 2023

Column A	Column B	Column C
110 <b><u>ANTICIPATED DIRECT COST OF GAS</u></b>		
111 <b>Purchased Gas:</b>		
112 Demand Costs:	\$ 1,055,340	
113 Supply Costs:	\$ 4,140,569	
114		
115 <b>Storage &amp; Peaking Gas:</b>		
116 Demand, Capacity:	\$ 397,527	
117 Commodity Costs:	\$ 162,908	
118		
119 <b>Inventory Finance Charge</b>	\$ -	
120		
121 <b>Capacity Release</b>	\$ -	
122		
123 <b>Re-entry Rate &amp; Conversion Rate Revenues</b>	\$ -	
124		
125 <b>Total Anticipated Direct Cost of Gas</b>		\$ 5,756,344
126		
127 <b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>		
128 <b>Adjustments:</b>		
129 Prior Period Under/(Over) Collection	\$ 94,114	
130 Interest	\$ (31,303)	
131 Refunds	\$ -	
132 Interruptible Margins	\$ -	
133 Total Adjustments		\$ 62,811
134		
135 <b>Working Capital:</b>		
136 Total Anticipated Direct Cost of Gas	\$ 5,756,344	
137 Working Capital Allowance Percentage (9.30 [lag days]/366* prime rate)	<u>0.159%</u>	
138 Working Capital Allowance	\$ 9,142	
139 Plus: Working Capital Reconciliation (Acct. 173)	<u>\$ 1,807</u>	
140		
141 Total Working Capital Allowance		\$ 10,948
142		
143 <b>Bad Debt:</b>		
144 Projected Bad Debt	\$ 17,079	
145 Plus: Bad Debt Reconciliation (Acct 173)	<u>\$ (562)</u>	
146 Total Bad Debt Expense		\$ 16,517
147		
148 <b>Local Production and Storage Capacity</b>		\$ -
149		
150 <b>Miscellaneous Overhead-19.54% Allocated to Summer Season</b>		\$ 119,588
151		
152 <b>Total Anticipated Indirect Cost of Gas</b>		\$ 209,865
153		
154 <b>Total Cost of Gas</b>		\$ 5,966,208
155		

(\*) Prime Rate is 6.25%



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

Anticipated Cost of Gas

New Hampshire Division  
 Period Covered: May 1, 2023 - October 31, 2023

<b>Column A</b>	<b>Column D</b>
110 <b><u>ANTICIPATED DIRECT COST OF GAS</u></b>	
111 <b>Purchased Gas:</b>	
112 Demand Costs:	Attachment NUI-CAK-2, LN 71 + LN 75
113 Supply Costs:	Attachment NUI-CAK-6, LN 14
114	
115 <b>Storage &amp; Peaking Gas:</b>	
116 Demand, Capacity:	Attachment NUI-CAK-2, LN 73
117 Commodity Costs:	Attachment NUI-CAK-6, LN 15 + LN 16
118	
119 <b>Inventory Finance Charge</b>	- (Attachment NUI-CAK-6, LN 20)
120	
121 <b>Capacity Release</b>	- (Attachment NUI-CAK-2, LN 77)
122	
123 <b>Re-entry Rate &amp; Conversion Rate Revenues</b>	
124	
125 <b>Total Anticipated Direct Cost of Gas</b>	Sum ( LN 112 : LN 123 )
126	
127 <b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>	
128 <b>Adjustments:</b>	
129 Prior Period Under/(Over) Collection	Attachment NUI-CAK-10, Page 1
130 Interest	Attachment NUI-CAK-12, LN 92: Total
131 Refunds	Company Analysis
132 Interruptible Margins	- (Attachment NUI-CAK-2, LN 78)
133 Total Adjustments	Sum ( LN 129 : LN 132 )
134	
135 <b>Working Capital:</b>	
136 Total Anticipated Direct Cost of Gas	LN 125
137 Working Capital Allowance Percentage (9.30 [lag days]/366* primeTariff - 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 <b>Bad Debt:</b>	
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 <b>Local Production and Storage Capacity</b>	Attachment NUI-CAK-2, LN 84
149	
150 <b>Miscellaneous Overhead-19.54% Allocated to Summer Season</b>	Attachment NUI-CAK-2, LN 83
151	
152 <b>Total Anticipated Indirect Cost of Gas</b>	Sum ( LN 133 : LN 150 )
153	
154 <b>Total Cost of Gas</b>	LN 152 + LN 125
155	

(\*) Prime Rate is 6.25%

**NORTHERN UTILITIES, INC.**

156  
 157 CALCULATION OF FIRM SALES COST OF GAS RATE  
 158 Period Covered: May 1, 2023 - October 31, 2023

160 Column A	Column B	Column C
161		
162 Total Anticipated Direct Cost of Gas	\$ 5,756,344	
163 Projected Prorated Sales (05/01/23 - 10/31/23)	8,625,565	
164 <b>Direct Cost of Gas Rate</b>		\$ 0.6674 per therm
165		
166 <b>Demand Cost of Gas Rate</b>	\$ 1,452,867	\$ 0.1684 per therm
167 <b>Commodity Cost of Gas Rate</b>	<u>\$ 4,303,477</u>	<u>\$ 0.4989 per therm</u>
168 <b>Total Direct Cost of Gas Rate</b>	\$ 5,756,344	\$ 0.6673 per therm
169		
170 Total Anticipated Indirect Cost of Gas	\$ 209,865	
171 Projected Prorated Sales (05/01/23 - 10/31/23)	8,625,565	
172 <b>Indirect Cost of Gas</b>		\$ 0.0243 per therm
173		
174		
175 <b>TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/23</b>		<b>\$ 0.6916 per therm</b>

<b>RESIDENTIAL COST OF GAS RATE - 05/01/23</b>	<b>COGwr</b>	<b>\$ 0.6916 per therm</b>
	Maximum (COG+25%)	<b>\$ 0.8645</b>

<b>COM/IND LOW WINTER USE COST OF GAS RATE - 05/01/23</b>	<b>COGwl</b>	<b>\$ 0.6331 per therm</b>
	Maximum (COG+25%)	<b>\$ 0.7914</b>

184 C&I HLF Demand Costs Allocated per SMBA	\$ 230,600
185 PLUS: Residential Demand Reallocation to C&I HLF	<u>\$ 11,833</u>
186 C&I HLF Total Adjusted Demand Costs	\$ 242,434
187 C&I HLF Projected Prorated Sales (05/01/23 - 10/31/23)	2,206,001
188 <b>Demand Cost of Gas Rate</b>	<b>\$ 0.1099</b>
189	
190 C&I HLF Commodity Costs Allocated per SMBA	\$ 1,100,620
191 PLUS: Residential Commodity Reallocation to C&I HLF	<u>\$ 34</u>
192 C&I HLF Total Adjusted Commodity Costs	\$ 1,100,655
193 C&I HLF Projected Prorated Sales (05/01/23 - 10/31/23)	2,206,001
194 <b>Commodity Cost of Gas Rate</b>	<b>\$ 0.4989</b>
195	
196 <b>Indirect Cost of Gas</b>	<b>\$ 0.0243</b>
197	
198 <b>Total C&amp;I HLF Cost of Gas Rate</b>	<b>\$ 0.6331</b>

<b>COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/23</b>	<b>COGwh</b>	<b>\$ 0.7383 per therm</b>
	Maximum (COG+25%)	<b>\$ 0.9229</b>

204 C&I LLF Demand Costs Allocated per SMBA	\$ 566,892
205 PLUS: Residential Demand Reallocation to C&I LLF	<u>\$ 29,091</u>
206 C&I LLF Total Adjusted Demand Costs	\$ 595,983
207 C&I LLF Projected Prorated Sales (05/01/23 - 10/31/23)	2,770,809
208 <b>Demand Cost of Gas Rate</b>	<b>\$ 0.2151</b>
209	
210 C&I LLF Commodity Costs Allocated per SMBA	\$ 1,382,415
211 PLUS: Residential Commodity Reallocation to C&I LLF	<u>\$ 43</u>
212 C&I LLF Total Adjusted Commodity Costs	\$ 1,382,458
213 C&I LLF Projected Prorated Sales (05/01/23 - 10/31/23)	2,770,809
214 <b>Commodity Cost of Gas Rate</b>	<b>\$ 0.4989</b>
215	
216 <b>Indirect Cost of Gas</b>	<b>\$ 0.0243</b>
217	
218 <b>Total C&amp;I LLF Cost of Gas Rate</b>	<b>\$ 0.7383</b>

**NORTHERN UTILITIES, INC.**

156		
157	CALCULATION OF FIRM SALES COST OF GAS RATE	
158	Period Covered: May 1, 2023 - October 31, 2023	
159		
160	<b>Column A</b>	<b>Column D</b>
161		
162	Total Anticipated Direct Cost of Gas	LN 125
163	Projected Prorated Sales (05/01/23 - 10/31/23)	Attachment NUI-CAK-3, LN 11
164	<b>Direct Cost of Gas Rate</b>	LN 162 / LN 163
165		
166	<b>Demand Cost of Gas Rate</b>	Column B : SUM ( LN 112 , LN 116 , LN 121 , LN 123 ) : Cc
167	<b>Commodity Cost of Gas Rate</b>	Column B : SUM ( LN 113 , LN 117 , LN 119 ) : COLUMN C
168	<b>Total Direct Cost of Gas Rate</b>	SUM ( LN 166 : LN 167 )
169		
170	Total Anticipated Indirect Cost of Gas	Column B : LN 152
171	Projected Prorated Sales (05/01/23 - 10/31/23)	Column B : LN 163
172	<b>Indirect Cost of Gas</b>	LN 170 / LN 171
173		
174		
175	<b>TOTAL PERIOD AVERAGE COST OF GAS EFFECTIVE 05/01/23</b>	LN 168 + LN 172
176		
177	<b>RESIDENTIAL COST OF GAS RATE - 05/01/23</b>	LN 175
178		LN 177 * 1.25
179		
180		
181	<b>COM/IND LOW WINTER USE COST OF GAS RATE - 05/01/23</b>	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 (05/01/23 - 10/31/23)	Attachment NUI-CAK-3, LN 14
188	<b>Demand Cost of Gas Rate</b>	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 (05/01/23 - 10/31/23)	LN 187
194	<b>Commodity Cost of Gas Rate</b>	LN 192 / LN 193
195		
196	<b>Indirect Cost of Gas</b>	LN 172
197		
198	<b>Total C&amp;I HLF Cost of Gas Rate</b>	Sum ( LN 188, LN 194, LN 196 )
199		
200		
201	<b>COM/IND HIGH WINTER USE COST OF GAS RATE - 05/01/23</b>	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 (05/01/23 - 10/31/23)	Attachment NUI-CAK-3, LN 15
208	<b>Demand Cost of Gas Rate</b>	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 (05/01/23 - 10/31/23)	LN 207
214	<b>Commodity Cost of Gas Rate</b>	LN 212 / LN 213
215		
216	<b>Indirect Cost of Gas</b>	LN 172
217		
218	<b>Total C&amp;I LLF Cost of Gas Rate</b>	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, 2022 - October 31, 2023

<b>Column A</b>	<b>Column B</b>	<b>Column C</b>
219 <b><u>ANTICIPATED DIRECT COST OF GAS</u></b>		
220 <b>Purchased Gas for Sales Service:</b>		
221 Demand Costs:	\$ 7,414,044	
222 Supply Costs:	\$ 24,270,196	
223		
224 <b>Storage &amp; Peaking Gas for Sales Service:</b>		
225 Demand, Capacity:	\$ 12,955,676	
226 Commodity Costs:	\$ 11,694,010	
227		
228 <b>Inventory Finance Charge</b>	\$ 6,382	
229		
230 <b>Capacity Release</b>	\$ (8,570,786)	
231		
232 <b>Re-entry Rate &amp; Conversion Rate Revenues</b>	\$ (5,000)	
233		
234 <b>Total Anticipated Direct Cost of Gas</b>		\$ 47,764,523
235		
236 <b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>		
237 <b>Adjustments:</b>		
238 Prior Period Under/(Over) Collection	\$ (2,663,062)	
239 Interest	\$ (85,689)	
240 Refunds	\$ -	
241 <u>Interruptible Margins</u>	\$ -	
242 Total Adjustments		\$ (2,748,751)
243		
244 <b>Working Capital:</b>		
245 Total Anticipated Direct Cost of Gas	\$ 47,764,523	
246 Working Capital Percentage	<u>0.1588%</u>	
247 Working Capital Allowance	\$ 75,856	
248		
249 Plus: Working Capital Reconciliation (Acct 173)	\$ 9,243	
250		
251 Total Working Capital Allowance		\$ 85,099
252		
253 <b>Bad Debt:</b>		
254 Bad Debt Allowance	\$ 138,643	
255 Plus: Bad Debt Reconciliation (Acct 173)	\$ (11,232)	
256 Total Bad Debt Allowance		\$ 127,411
257		
258 <b>Local Production and Storage Capacity</b>		\$ 214,538
259		
260 <b>Miscellaneous Overhead</b>		\$ 611,875
261		
262 <b>Total Anticipated Indirect Cost of Gas</b>		\$ (1,709,829)
263		
264 <b>Total Cost of Gas</b>		<u>\$ 46,054,694</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, 2022 - October 31, 2023

<b>Column A</b>	<b>Column D</b>
219 <b><u>ANTICIPATED DIRECT COST OF GAS</u></b>	
220 <b>Purchased Gas for Sales Service:</b>	
221 Demand Costs:	LN 3 + LN 112
222 Supply Costs:	LN 4 + LN 113
223	
224 <b>Storage &amp; Peaking Gas for Sales Service:</b>	
225 Demand, Capacity:	LN 7 + LN 116
226 Commodity Costs:	LN 8 + LN 117
227	
228 <b>Inventory Finance Charge</b>	LN 10 + LN 119
229	
230 <b>Capacity Release</b>	LN 12 + LN 121
231	
232 <b>Re-entry Rate &amp; Conversion Rate Revenues</b>	LN 14 + LN 123
233	
234 <b>Total Anticipated Direct Cost of Gas</b>	LN 16 + LN 125
235	
236 <b><u>ANTICIPATED INDIRECT COST OF GAS</u></b>	
237 <b>Adjustments:</b>	
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 <b>Working Capital:</b>	
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 <b>Bad Debt:</b>	
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 <b>Local Production and Storage Capacity</b>	LN 40 + LN 148
259	
260 <b>Miscellaneous Overhead</b>	LN 42 + LN 150
261	
262 <b>Total Anticipated Indirect Cost of Gas</b>	LN 44 + LN 152
263	
264 <b>Total Cost of Gas</b>	LN 46 + LN 154

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

Proposed Rates	2021-2022 Actual Cost of Gas Rates						Average Winter 22-23	Variance
	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22		
November 2022 - April 2023								
\$1.1289	\$0.9392	\$0.9392	\$0.8975	\$0.9462	\$1.0547	\$1.0547	\$0.9719	\$0.1570
May 2023 - October 2023							Average Summer 2022	
\$0.6916	\$0.6361	\$0.9126	\$0.9126	\$0.9126	\$1.1204	\$1.1204	\$0.9358	(\$0.2442)