

DG 15-362
Discounted Cash Flow Analysis for Pelham

Capital Cost w/o Take Station - Phases IA & IB & Pike	\$1,400,244
One time payment to TGP to build Take Station	\$1,249,779.00
Required Return (pre tax) Rate Base & Take Station	10.15%
Take Station Annual Amortization (10 years)	(\$204,708)

Net Present Value (Delta yrs 1-10 & 10.15% discount rate) \$18,395

Year	IRS MACRS Rates	IRS MACRS Table	Book Depr	Delta Book less Tax	Tax Rate	Deferred Inc Tax	Accumulated Deferred Inc Tax	Rate Base	Required Return	Property Tax	Insurance	O&M	Take Station Amortization of Initial Payment	Revenue Requirement	Projected Revenues MEP Rates	Delta Rev Req less Revenue
								1,400,244								
1	5	70,012	35,006	(35,006)	34%	(11,902)	(11,902)	1,353,336	\$139,744	\$29,405	\$2,761	\$4,470	\$204,708	\$416,095	\$393,025	(\$23,070)
2	9.5	133,023	35,006	(98,017)	34%	(33,326)	(45,228)	1,285,004	\$133,896	\$28,420	\$2,761	\$4,582	\$204,708	\$409,373	\$393,025	(\$16,348)
3	8.55	119,721	35,006	(84,715)	34%	(28,803)	(74,031)	1,221,195	\$127,190	\$26,985	\$2,761	\$4,696	\$204,708	\$401,346	\$393,025	(\$8,321)
4	7.7	107,819	35,006	(72,813)	34%	(24,756)	(98,787)	1,161,432	\$120,918	\$25,645	\$2,761	\$4,814	\$204,708	\$393,852	\$393,025	(\$827)
5	6.93	97,037	35,006	(62,031)	34%	(21,090)	(119,878)	1,105,336	\$115,038	\$24,390	\$2,761	\$4,934	\$204,708	\$386,838	\$393,025	\$6,187
6	6.23	87,235	35,006	(52,229)	34%	(17,758)	(137,636)	1,052,572	\$109,514	\$23,212	\$2,761	\$5,057	\$204,708	\$380,259	\$393,025	\$12,766
7	5.9	82,614	35,006	(47,608)	34%	(16,187)	(153,822)	1,001,379	\$104,238	\$22,104	\$2,761	\$5,184	\$204,708	\$374,001	\$393,025	\$19,024
8	5.9	82,614	35,006	(47,608)	34%	(16,187)	(170,009)	950,186	\$99,042	\$21,029	\$2,761	\$5,313	\$204,708	\$367,860	\$393,025	\$25,165
9	5.91	82,754	35,006	(47,748)	34%	(16,234)	(186,244)	898,945	\$93,843	\$19,954	\$2,761	\$5,446	\$204,708	\$361,719	\$393,025	\$31,306
10	5.9	82,614	35,006	(47,608)	34%	(16,187)	(202,430)	847,753	\$88,645	\$18,878	\$2,761	\$5,582	\$204,708	\$355,581	\$393,025	\$37,444

Required Return (Liberty proposal)

	Ratio	Rate	Pre-tax	Weighted Pre-tax
Equity	55%	9.75%	14.77%	8.13%
Debt	45%	4.50%	4.50%	2.03%
				<u>10.15%</u>

DG 15-362
Discounted Cash Flow Analysis for Windham

Capital Cost \$1,236,610
Required Return (pre tax) 10.15%

Net Present Value (Delta yrs 1-10 discounted at 10.15%) \$989,706

Year	IRS MACRS Rates	IRS MACRS Table	Book Depr	Delta Book less Tax	Tax Rate	Deferred Inc Tax	Accumulated Deferred Inc Tax	Rate Base	Required Return	Property Tax	Insurance	O&M	Revenue Requirement	Projected Revenues MEP Rates	Delta Rev Req less Revenue
								1,236,610							
1	5	61,831	30,915	(30,915)	34%	(10,511)	(10,511)	1,195,184	\$123,414	\$25,969	\$2,761	\$4,470	\$187,529	\$326,655.00	\$139,126.42
2	9.5	117,478	30,915	(86,563)	34%	(29,431)	(39,943)	1,134,837	\$118,249	\$25,099	\$2,761	\$4,582	\$181,605	\$326,655.00	\$145,049.60
3	8.55	105,730	30,915	(74,815)	34%	(25,437)	(65,380)	1,078,485	\$112,326	\$23,832	\$2,761	\$4,696	\$174,530	\$326,655.00	\$152,124.80
4	7.7	95,219	30,915	(64,304)	34%	(21,863)	(87,243)	1,025,706	\$106,788	\$22,648	\$2,761	\$4,814	\$167,926	\$326,655.00	\$158,729.19
5	6.93	85,697	30,915	(54,782)	34%	(18,626)	(105,869)	976,165	\$101,595	\$21,540	\$2,761	\$4,934	\$161,745	\$326,655.00	\$164,909.91
6	6.23	77,041	30,915	(46,126)	34%	(15,683)	(121,551)	929,567	\$96,716	\$20,499	\$2,761	\$5,057	\$155,949	\$326,655.00	\$170,705.98
7	5.9	72,960	30,915	(42,045)	34%	(14,295)	(135,847)	884,357	\$92,057	\$19,521	\$2,761	\$5,184	\$150,438	\$326,655.00	\$176,217.38
8	5.9	72,960	30,915	(42,045)	34%	(14,295)	(150,142)	839,146	\$87,468	\$18,571	\$2,761	\$5,313	\$145,029	\$326,655.00	\$181,626.06
9	5.91	73,084	30,915	(42,168)	34%	(14,337)	(164,479)	793,894	\$82,877	\$17,622	\$2,761	\$5,446	\$139,621	\$326,655.00	\$187,033.64
10	5.9	72,960	30,915	(42,045)	34%	(14,295)	(178,774)	748,683	\$78,286	\$16,672	\$2,761	\$5,582	\$134,216	\$326,655.00	\$192,438.78

Required Return (Liberty proposal)

	Ratio	Rate	Pre-tax	Weighted Pre-tax
Equity	55%	9.75%	14.77%	8.13%
Debt	45%	4.50%	4.50%	2.03%
				<u>10.15%</u>

Docket No. DG 15-362
 Illustrative Calculation of Risk Sharing Mechanism
 See Page 1 of Appendix C for Assumptions

Year	Pelham Revenue		
	Pelham Revenue	Requirement	Difference
1	\$ 353,723	\$ 426,563	\$ (72,841)
2	\$ 353,723	\$ 419,422	\$ (65,700)
3	\$ 353,723	\$ 410,884	\$ (57,162)
4	\$ 353,723	\$ 402,913	\$ (49,190)
5	\$ 353,723	\$ 395,450	\$ (41,728)
6	\$ 353,723	\$ 388,450	\$ (34,727)
7	\$ 353,723	\$ 381,792	\$ (28,070)
8	\$ 353,723	\$ 375,258	\$ (21,536)
9	\$ 353,723	\$ 368,725	\$ (15,003)
10	\$ 353,723	\$ 362,194	\$ (8,471)

Permanent Rates Take Effect Year 2

Average revenue (years 2-4)	\$353,723
Average revenue requirement (years 2-4)	\$411,073
Difference	(\$57,351)
Revenue Requirement Reduction	(\$28,675)

Permanent Rates Take Effect Year 5

Average revenue (years 5-7)	\$353,723
Average revenue requirement (years 5-7)	\$388,564
Difference	(\$34,842)
Revenue Requirement Reduction	(\$34,842)

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Sample Annual Report for Pelham Expansion
Assumes Actual Capital Cost 10% over Original & Projected Revenue 90% of Original & Approved Return of 9.73%

Original Pelham DCF Analysis (Settlement Agreement Appendix A)

Capital Cost w/o Take Station - Phases IA & IB & Pike														Required Return (Liberty proposal)							
One time payment to TGP to build Take Station																					
Required Return (pre tax) Rate Base & Take Station																					
Take Station Annual Amortization (10 years)																					
														Ratio		Rate		Pre-tax		Weighted Pre-tax	
														Equity		55%		9.75%		14.77%	
														Debt		45%		4.50%		2.03%	
Net Present Value (Delta yrs 1-10 & 10.15% discount rate)																		10.15%			
Year	IRS MACRS Rates	IRS MACRS Table	Book Depr	Delta Book less Tax	Tax Rate	Deferred Inc Tax	Accumulated Deferred Inc Tax	Rate Base	Required Return	Property Tax	Insurance	O&M	Take Station Amortization of Initial Payment	Revenue Requirement	Projected Revenues MEP Rates	Delta Rev Req less Revenue					
1	5	70,012	35,006	(35,006)	34%	(11,902)	(11,902)	1,400,244	\$139,744	\$29,405	\$2,761	\$4,470	\$204,708	\$416,095	\$393,025	(\$23,070)					
2	9.5	133,023	35,006	(98,017)	34%	(33,326)	(45,228)	1,353,336	\$133,896	\$28,420	\$2,761	\$4,582	\$204,708	\$409,373	\$393,025	(\$16,348)					
3	8.55	119,721	35,006	(84,715)	34%	(28,803)	(74,031)	1,221,195	\$127,190	\$26,985	\$2,761	\$4,696	\$204,708	\$401,346	\$393,025	(\$8,321)					
4	7.7	107,819	35,006	(72,813)	34%	(24,756)	(98,787)	1,161,432	\$120,918	\$25,645	\$2,761	\$4,814	\$204,708	\$393,852	\$393,025	(\$827)					
5	6.93	97,037	35,006	(62,031)	34%	(21,090)	(119,878)	1,105,336	\$115,038	\$24,390	\$2,761	\$4,934	\$204,708	\$386,838	\$393,025	\$6,187					
6	6.23	87,235	35,006	(52,229)	34%	(17,758)	(137,636)	1,052,572	\$109,514	\$23,212	\$2,761	\$5,057	\$204,708	\$380,259	\$393,025	\$12,766					
7	5.9	82,614	35,006	(47,608)	34%	(16,187)	(153,822)	1,001,379	\$104,238	\$22,104	\$2,761	\$5,184	\$204,708	\$374,001	\$393,025	\$19,024					
8	5.9	82,614	35,006	(47,608)	34%	(16,187)	(170,009)	950,186	\$99,042	\$21,029	\$2,761	\$5,313	\$204,708	\$367,860	\$393,025	\$25,165					
9	5.91	82,754	35,006	(47,748)	34%	(16,234)	(186,244)	898,945	\$93,843	\$19,954	\$2,761	\$5,446	\$204,708	\$361,719	\$393,025	\$31,306					
10	5.9	82,614	35,006	(47,608)	34%	(16,187)	(202,430)	847,753	\$88,645	\$18,878	\$2,761	\$5,582	\$204,708	\$355,581	\$393,025	\$37,444					

Updated Pelham DCF Analysis as of December 31, 2017

Capital Cost w/o Take Station - Phases IA & IB & Pike														Required Return (Approved Cost of Capital)							
One time payment to TGP to build Take Station																					
Required Return (pre tax) Rate Base & Take Station																					
Take Station Annual Amortization (10 years)																					
														Ratio		Rate		Pre-tax		Weighted Pre-tax	
														Equity		55%		9.25%		14.02%	
														Debt		45%		4.50%		7.71%	
Net Present Value (Delta yrs 1-10 & 10.15% discount rate)																		9.73%			
Year	IRS MACRS Rates	IRS MACRS Table	Book Depr	Delta Book less Tax	Tax Rate	Deferred Inc Tax	Accumulated Deferred Inc Tax	Rate Base	Required Return	Property Tax	Insurance	O&M	Take Station Amortization of Initial Payment	Revenue Requirement	Projected Revenues MEP Rates	Delta Rev Req less Revenue					
1	5	77,013	38,507	(38,507)	34%	(13,092)	(13,092)	1,540,268	\$147,408	\$32,346	\$2,761	\$4,470	\$201,072	\$426,563	\$353,723	(\$72,841)					
2	9.5	146,325	38,507	(107,819)	34%	(36,658)	(49,751)	1,488,669	\$141,239	\$31,262	\$2,761	\$4,582	\$201,072	\$419,422	\$353,723	(\$65,700)					
3	8.55	131,693	38,507	(93,186)	34%	(31,683)	(81,434)	1,413,504	\$134,165	\$29,684	\$2,761	\$4,696	\$201,072	\$410,884	\$353,723	(\$57,162)					
4	7.7	118,601	38,507	(80,094)	34%	(27,232)	(108,666)	1,343,314	\$127,550	\$28,210	\$2,761	\$4,814	\$201,072	\$402,913	\$353,723	(\$49,190)					
5	6.93	106,741	38,507	(68,234)	34%	(23,200)	(131,865)	1,277,576	\$121,348	\$26,829	\$2,761	\$4,934	\$201,072	\$395,450	\$353,723	(\$41,728)					
6	6.23	95,959	38,507	(57,452)	34%	(19,534)	(151,399)	1,157,829	\$115,520	\$25,533	\$2,761	\$5,057	\$201,072	\$388,450	\$353,723	(\$34,727)					
7	5.9	90,876	38,507	(52,369)	34%	(17,806)	(169,205)	1,101,517	\$109,955	\$24,314	\$2,761	\$5,184	\$201,072	\$381,792	\$353,723	(\$28,070)					
8	5.9	90,876	38,507	(52,369)	34%	(17,806)	(187,010)	1,045,205	\$104,474	\$23,132	\$2,761	\$5,313	\$201,072	\$375,258	\$353,723	(\$21,536)					
9	5.91	91,030	38,507	(52,523)	34%	(17,858)	(204,868)	988,840	\$98,990	\$21,949	\$2,761	\$5,446	\$201,072	\$368,725	\$353,723	(\$15,003)					
10	5.9	90,876	38,507	(52,369)	34%	(17,806)	(222,674)	932,528	\$93,507	\$20,766	\$2,761	\$5,582	\$201,072	\$362,194	\$353,723	(\$8,471)					

Variance - Updated less Original

Capital Cost w/o Take Station - Phases IA & IB & Pike																					
One time payment to TGP to build Take Station																					
Required Return (pre tax) Rate Base & Take Station																					
Take Station Annual Amortization (10 years)																					
														Ratio		Rate		Pre-tax		Weighted Pre-tax	
														Equity		0%		0%		0%	
														Debt		0%		0%		0%	
Net Present Value (Delta yrs 1-10 & 10.15% discount rate)																		-0.42%			
Year	IRS MACRS Rates	IRS MACRS Table	Book Depr	Delta Book less Tax	Tax Rate	Deferred Inc Tax	Accumulated Deferred Inc Tax	Rate Base	Required Return	Property Tax	Insurance	O&M	Take Station Amortization of Initial Payment	Revenue Requirement	Projected Revenues MEP Rates	Delta Rev Req less Revenue					
1	0	7,001	3,501	(3,501)	0%	(1,190)	(1,190)	140,024	\$7,664	\$2,941	\$0	\$0	(\$3,637)	\$10,469	(\$39,303)	(\$49,771)					
2	0	13,302	3,501	(9,802)	0%	(3,333)	(4,523)	135,334	\$7,343	\$2,842	\$0	\$0	(\$3,637)	\$10,049	(\$39,303)	(\$49,352)					
3	0	11,972	3,501	(8,471)	0%	(2,880)	(7,403)	128,500	\$6,976	\$2,699	\$0	\$0	(\$3,637)	\$9,538	(\$39,303)	(\$48,841)					
4	0	10,782	3,501	(7,281)	0%	(2,476)	(9,879)	122,119	\$6,632	\$2,565	\$0	\$0	(\$3,637)	\$9,060	(\$39,303)	(\$48,363)					
5	0	9,704	3,501	(6,203)	0%	(2,109)	(11,988)	116,143	\$6,309	\$2,439	\$0	\$0	(\$3,637)	\$8,612	(\$39,303)	(\$47,915)					
6	0	8,724	3,501	(5,223)	0%	(1,776)	(13,764)	105,534	\$6,006	\$2,321	\$0	\$0	(\$3,637)	\$8,191	(\$39,303)	(\$47,494)					
7	0	8,261	3,501	(4,761)	0%	(1,619)	(15,382)	100,138	\$5,717	\$2,210	\$0	\$0	(\$3,637)	\$7,791	(\$39,303)	(\$47,094)					
8	0	8,261	3,501	(4,761)	0%	(1,619)	(17,001)	95,019	\$5,432	\$2,103	\$0	\$0	(\$3,637)	\$7,399	(\$39,303)	(\$46,701)					
9	0	8,275	3,501	(4,775)	0%	(1,623)	(18,624)	89,895	\$5,147	\$1,995	\$0	\$0	(\$3,637)	\$7,006	(\$39,303)	(\$46,309)					
10	0	8,261	3,501	(4,761)	0%	(1,619)	(20,243)	84,775	\$4,862	\$1,888	\$0	\$0	(\$3,637)	\$6,613	(\$39,303)	(\$45,916)					

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Sample Annual Report for Pelham Expansion
Customer Conversions

Original Pelham Customer Conversions (Settlement Agreement Appendix A)

	Number	Gross Profit Margin	Annual Revenue	60% of Annual Revenue										
Residential Premises Along Main Extension	162	\$713	\$115,506	\$69,304										
Commercial & Industrial Premises Along Main Extension	153	\$359,928	\$359,928	\$215,957										
Total Premises Along Main Extension	315		\$475,434	\$285,260										
Residential Commitments prior to Constuction	0	\$713	\$0	\$0										
Commercial & Industrial Commitments prior to Constuction	9	\$147,946	\$147,946	\$0										
Total Commitments prior to Construction	0		\$147,946	\$0										

Year	Residential Oil Customers	Residential Propane Customers	Total Residential Customers	Annual Therm Usage	Annual Gross Profit Margin	Residential Annual Revenue	C&I Oil Customers	C&I Propane Customers	Total C&I Customers	Annual Therm Usage	Annual Gross Profit Margin	C&I Annual Revenue	Total Customer Conversions	Total Annual Revenue
1	71	26	97	850	\$69,161	\$69,161	10	94	104	2,000	\$303,105	\$303,105	201	\$372,266
2	0	0	0	850		\$69,161			0	2,000	\$0	\$303,105	0	\$372,266
3	0	0	0	850		\$69,161			0	2,000	\$0	\$303,105	0	\$372,266
4	0	0	0	850		\$69,161			0	2,000	\$0	\$303,105	0	\$372,266
5	0	0	0	850		\$69,161			0	2,000	\$0	\$303,105	0	\$372,266
6	0	0	0	850		\$69,161			0	2,000	\$0	\$303,105	0	\$372,266
7	0	0	0	850		\$69,161			0	2,000	\$0	\$303,105	0	\$372,266
8	0	0	0	850		\$69,161			0	2,000	\$0	\$303,105	0	\$372,266
9	0	0	0	850		\$69,161			0	2,000	\$0	\$303,105	0	\$372,266
10	0	0	0	850		\$69,161			0	2,000	\$0	\$303,105	0	\$372,266

Updated Pelham Customer Conversions as of December 31, 2017

	Number													
Residential Premises Along Main Extension	70													
Commercial & Industrial Premises Along Main Extension	70													
Total Premises Along Main Extension	140													

Year	Residential Oil Customers	Residential Propane Customers	Total Residential Customers	Annual Therm Usage	Annual Gross Profit Margin	Residential Annual Revenue	C&I Oil Customers	C&I Propane Customers	Total C&I Customers	Annual Therm Usage	Annual Gross Profit Margin	C&I Annual Revenue	Total Customer Conversions	Total Annual Revenue
1	50	22	72	850	\$51,336	\$51,336	8	85	93	2,000	\$275,000	\$275,000	165	\$326,336
2	0	0	0	850	\$0	\$51,336	0	0	0	2,000	\$0	\$275,000	0	\$326,336
3	0	0	0	850	\$0	\$51,336	0	0	0	2,000	\$0	\$275,000	0	\$326,336
4	0	0	0	850	\$0	\$51,336	0	0	0	2,000	\$0	\$275,000	0	\$326,336
5	0	0	0	850	\$0	\$51,336	0	0	0	2,000	\$0	\$275,000	0	\$326,336
6	0	0	0	850	\$0	\$51,336	0	0	0	2,000	\$0	\$275,000	0	\$326,336
7	0	0	0	850	\$0	\$51,336	0	0	0	2,000	\$0	\$275,000	0	\$326,336
8	0	0	0	850	\$0	\$51,336	0	0	0	2,000	\$0	\$275,000	0	\$326,336
9	0	0	0	850	\$0	\$51,336	0	0	0	2,000	\$0	\$275,000	0	\$326,336
10	0	0	0	850	\$0	\$51,336	0	0	0	2,000	\$0	\$275,000	0	\$326,336

Variance - Updated less Original

	Number													
Residential Premises Along Main Extension	(92)													
Commercial & Industrial Premises Along Main Extension	(83)													
Total Premises Along Main Extension	(175)													

Year	Residential Oil Customers	Residential Propane Customers	Total Residential Customers	Annual Therm Usage	Annual Gross Profit Margin	Residential Annual Revenue	C&I Oil Customers	C&I Propane Customers	Total C&I Customers	Annual Therm Usage	Annual Gross Profit Margin	C&I Annual Revenue	Total Customer Conversions	Total Annual Revenue
1	-21	-4	(25)	0	(17,825)	(17,825)	-2	-9	(11)	0	(\$28,105)	(\$28,105)	(36)	(45,930)
2	0	0	0	0	0	(17,825)	0	0	0	0	\$0	(\$28,105)	0	(45,930)
3	0	0	0	0	0	(17,825)	0	0	0	0	\$0	(\$28,105)	0	(45,930)
4	0	0	0	0	0	(17,825)	0	0	0	0	\$0	(\$28,105)	0	(45,930)
5	0	0	0	0	0	(17,825)	0	0	0	0	\$0	(\$28,105)	0	(45,930)
6	0	0	0	0	0	(17,825)	0	0	0	0	\$0	(\$28,105)	0	(45,930)
7	0	0	0	0	0	(17,825)	0	0	0	0	\$0	(\$28,105)	0	(45,930)
8	0	0	0	0	0	(17,825)	0	0	0	0	\$0	(\$28,105)	0	(45,930)
9	0	0	0	0	0	(17,825)	0	0	0	0	\$0	(\$28,105)	0	(45,930)
10	0	0	0	0	0	(17,825)	0	0	0	0	\$0	(\$28,105)	0	(45,930)

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Liberty Price of Gas (MEP Rates) versus Oil and Propane for Average Residential Heat Customer

Liberty Utilities (EnergyNorth Natural Gas) Corp.

1 **d/b/a Liberty Utilities**

2 **Peak 2015 - 2016 Winter Cost of Gas Filing**

3 **Annual Bill Comparisons, Nov 14 - Apr 15 vs Nov 15 - Apr 16 - MEP Residential Heating Rate R-5**

4

5

6 **November 1, 2015 - April 30, 2016**

7 **Residential Heating (R5)**

8 **PROPOSED**

			Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	Winter Nov-Apr
10 average Usage (Therms)			46	96	121	138	129	93	623
	<u>7/1/2015</u>	<u>12/1/2014</u>							
12 Winter:									
13 Cust. Chg	\$28.65	\$28.65	\$28.65	\$28.65	\$28.65	\$28.65	\$28.65	\$28.65	\$171.90
14 Headblock	\$0.4532	\$0.4532	\$20.65	\$43.35	\$45.32	\$45.32	\$45.32	\$42.27	\$242.23
15 Tailblock	\$0.3751	\$0.3751	\$0.00	\$0.00	\$7.94	\$14.25	\$10.92	\$0.00	\$33.11
16 HB Threshold	100	100							
18 Summer:									
19 Cust. Chg	\$28.65	\$28.65							
20 Headblock	\$0.4532	\$0.4532							
21 Tailblock	\$0.3751	\$0.3751							
22 HB Threshold	20	20							
24 Total Base Rate Amount			\$49.30	\$72.00	\$81.91	\$88.22	\$84.89	\$70.92	\$447.24
26 COG Rate - (Seasonal)			\$0.7516	\$0.7516	\$0.6256	\$0.4436	\$0.2634	\$0.2634	\$0.4845
27 COG amount			\$34.25	\$71.89	\$75.80	\$61.22	\$34.01	\$24.57	\$301.74
29 LDAC			\$0.1014	\$0.1014	\$0.1014	\$0.1014	\$0.1014	\$0.1014	0.1014
30 LDAC amount			\$4.62	\$9.70	\$12.29	\$13.99	\$13.09	\$9.46	\$63.15
32 Total Bill			\$88.18	\$153.59	\$170.00	\$163.43	\$131.98	\$104.94	\$812.13

May 1, 2015 - October 31, 2015

May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Summer May-Oct	Total Nov-Oct
57	27	17	15	14	22	154	776
\$28.65	\$28.65	\$28.65	\$28.65	\$28.65	\$28.65	\$171.90	\$343.80
\$0.70	\$0.70	\$7.64	\$6.98	\$6.57	\$9.06	\$31.65	\$273.88
\$20.77	\$9.73	\$0.00	\$0.00	\$0.00	\$0.91	\$31.42	\$64.53
\$50.12	\$39.08	\$36.29	\$35.63	\$35.22	\$38.63	\$234.97	\$682.21
\$0.3073	\$0.3246	\$0.3421	\$0.3421	\$0.3421	\$0.3421	\$0.3261	\$0.4532
\$17.49	\$8.92	\$5.77	\$5.27	\$4.96	\$7.67	\$50.08	\$351.82
\$0.0772	\$0.0772	\$0.0937	\$0.0937	\$0.0937	\$0.0937	\$0.0846	\$0.0981
\$4.39	\$2.12	\$1.58	\$1.44	\$1.36	\$2.10	\$13.00	\$76.15
\$72.01	\$50.13	\$43.64	\$42.33	\$41.54	\$48.40	\$298.05	\$1,110.18

	Average Residential Annual Usage	Price Per Therm *	Yearly Total	Yearly Natural Gas	Natural Gas Savings/ (Cost)	Savings Percent
Oil	776	\$1.55	\$1,200	\$1,110	(\$90)	-8%
Propane	776	\$2.91	\$2,257	\$1,110	(\$1,147)	-51%
Natural Gas	776	\$1.43	\$1,110			

Oil & Propane Prices as Reported by the New Hampshire Office of Energy Planning - August 2, 2016
<https://www.nh.gov/oep/energy/energy-nh/fuel-prices/index.htm>

Equivalent per therm price calculated using NHPUC conversion table
<http://www.puc.nh.gov/Gas-Steam/naturalgasvsalternativefuels.htm>

	Price per Gallon	Heat Content Per Unit (Btu)	Per Therm Price	Efficiency Per Therm Price *
Fuel Oil (#2)	\$1.93	138,690	\$1.39	\$1.55
Propane	\$2.39	91,333	\$2.62	\$2.91

* Efficiency Per Therm Price based on average efficiency of oil and propane furnaces