

JC Table 4Rev. Alternate Case - VGS Expansion Project  
 Summary Base Case, Alternate Case Forecast, Conversion Costs, Net Savings

5/23/2013

**Summary Gross & Net Fuel Cost Savings - Cumulative and Present Value - Alternate Case**

<u>Expanded Service Territory</u>	<u>Cumulative</u>	<u>Present Value (2012\$) [H]</u>
Base Case Fuel Cost - All Rate Classes [A]	\$ 467,177,812	\$ 335,801,653
Alternate Case Fuel Cost - All Rate Classes [B]	\$ 183,532,266	\$ 131,215,785
Gross Fuel Costs Savings [C]	<u>\$ 283,645,546</u>	<u>\$ 204,585,867</u>
Less:		
Conversion Costs [D]	<u>\$ 20,432,700</u>	<u>\$ 17,961,332</u>
Equals:		
Net Fuel Bill Savings [E]	<u><u>\$ 263,212,846</u></u>	<u><u>\$ 186,624,535</u></u>
<u>Current Service Territory</u>		
Less:		
Expansion Fund Collections/Rate Impact [F]	\$ 166,826,955	\$ 127,058,139
<u>Statewide</u>		
Equals:		
Net Fuel Bill Savings [G]	<u><u>\$ 96,385,891</u></u>	<u><u>\$ 59,566,396</u></u>

Prepared by: Economic & Policy Resources, Inc. Williston, VT 800-765-1377



**G. Statewide Net Fuel Bill Savings**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Residential	\$ (1,053,024)	\$ (2,322,554)	\$ (2,057,814)	\$ (3,236,310)	\$ (11,677,189)	\$ (4,940,451)	\$ (4,134,803)	\$ (2,562,764)	\$ (2,497,423)	\$ (2,415,791)	\$ (2,350,147)	\$ (2,296,855)	\$ (2,246,938)	\$ (2,191,985)	\$ (2,059,660)	\$ (2,019,833)	\$ (1,974,581)	\$ (1,894,732)	\$ (1,755,570)	\$ (1,614,173)	\$ (1,607,886)
Commercial (G1, G2, G3, G4)	\$ (792,903)	\$ (1,748,819)	\$ (7,001,272)	\$ (2,441,050)	\$ (7,572,910)	\$ (2,681,116)	\$ (2,044,164)	\$ (1,618,949)	\$ (601,362)	\$ (511,254)	\$ (484,030)	\$ (464,523)	\$ (454,584)	\$ (451,316)	\$ (455,730)	\$ (458,854)	\$ (458,334)	\$ (454,028)	\$ (451,844)	\$ (452,727)	\$ (452,898)
All Industrials	\$ -	\$ -	\$ -	\$ 1,290,100	\$ 6,305,811	\$ 8,638,755	\$ 8,956,590	\$ 9,260,485	\$ 9,448,247	\$ 9,566,043	\$ 9,619,149	\$ 9,711,151	\$ 10,186,671	\$ 10,469,664	\$ 10,832,112	\$ 11,132,749	\$ 11,307,337	\$ 11,635,258	\$ 12,023,158	\$ 12,429,769	\$ 13,029,253
<b>Total</b>	<b>\$ (1,845,927)</b>	<b>\$ (4,071,383)</b>	<b>\$ (4,659,087)</b>	<b>\$ (4,397,779)</b>	<b>\$ (12,884,348)</b>	<b>\$ 1,017,188</b>	<b>\$ 2,817,623</b>	<b>\$ 6,079,679</b>	<b>\$ 6,350,162</b>	<b>\$ 6,738,498</b>	<b>\$ 6,985,067</b>	<b>\$ 7,269,763</b>	<b>\$ 7,600,851</b>	<b>\$ 8,046,357</b>	<b>\$ 8,586,722</b>	<b>\$ 8,993,062</b>	<b>\$ 9,194,122</b>	<b>\$ 9,706,497</b>	<b>\$ 10,359,032</b>	<b>\$ 11,038,333</b>	<b>\$ 11,441,465</b>
Cumulative	\$ (1,845,927)	\$ (5,917,110)	\$ (10,576,197)	\$ (14,974,177)	\$ (27,858,525)	\$ (26,841,337)	\$ (24,003,713)	\$ (17,924,040)	\$ (11,571,878)	\$ (4,835,380)	\$ 2,149,686	\$ 9,419,450	\$ 17,020,301	\$ 25,066,658	\$ 33,653,380	\$ 42,646,442	\$ 51,840,564	\$ 61,547,061	\$ 71,906,093	\$ 82,944,426	\$ 96,385,891
check:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**H. Present Value Calculations - Alternate Case**

	n:	0	0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5	15.5	16.5	17.5	18.5	
Discount Rate:	3.0%																						
PV Factor:	1.00000	1.00000	0.98533	0.95863	0.92877	0.90172	0.87545	0.84995	0.82520	0.80116	0.77783	0.75517	0.73318	0.71182	0.69109	0.67096	0.65142	0.63245	0.61402	0.59614	0.57878		
<b>Expanded Service Territory</b>	<b>Cumulative (2012)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>	
Base Case	\$ 335,801,653	\$ -	\$ -	\$ -	\$ 1,849,216	\$ 10,175,142	\$ 17,545,744	\$ 19,080,214	\$ 20,207,363	\$ 20,174,176	\$ 20,213,697	\$ 20,269,329	\$ 20,288,273	\$ 20,315,570	\$ 20,347,155	\$ 20,515,792	\$ 20,597,744	\$ 20,534,396	\$ 20,611,623	\$ 20,765,351	\$ 20,996,437	\$ 21,354,479	
Reference Case	\$ 131,215,785	\$ -	\$ -	\$ -	\$ 612,998	\$ 3,496,045	\$ 6,435,504	\$ 7,032,387	\$ 7,546,598	\$ 7,583,807	\$ 7,667,958	\$ 7,839,440	\$ 8,017,815	\$ 8,109,555	\$ 8,122,531	\$ 8,204,100	\$ 8,274,777	\$ 8,312,554	\$ 8,259,968	\$ 8,211,990	\$ 8,240,988	\$ 8,657,231	
Gross Fuel Savings	\$ 204,585,867	\$ -	\$ -	\$ -	\$ 1,236,219	\$ 6,679,098	\$ 11,110,240	\$ 12,047,827	\$ 12,660,765	\$ 12,590,369	\$ 12,545,740	\$ 12,429,880	\$ 12,270,958	\$ 12,206,715	\$ 12,233,625	\$ 12,311,692	\$ 12,322,967	\$ 12,221,842	\$ 12,293,655	\$ 12,348,000	\$ 12,415,449	\$ 12,697,198	
Conversion Costs	\$ 17,961,332	\$ -	\$ -	\$ -	\$ 38,819	\$ 10,704,890	\$ 2,534,781	\$ 2,057,409	\$ 204,244	\$ 231,794	\$ 206,783	\$ 218,492	\$ 176,257	\$ 101,046	\$ 159,951	\$ 180,058	\$ 161,232	\$ 178,889	\$ 164,815	\$ 160,015	\$ 155,354	\$ 150,819	
Net Fuel Bill Savings	\$ 186,624,535	\$ -	\$ -	\$ -	\$ 1,197,379	\$ (4,025,742)	\$ 8,571,459	\$ 9,950,478	\$ 12,456,521	\$ 12,358,571	\$ 12,342,957	\$ 12,205,396	\$ 12,094,701	\$ 12,014,949	\$ 12,023,674	\$ 12,131,594	\$ 12,161,735	\$ 12,043,354	\$ 12,086,840	\$ 12,184,245	\$ 12,280,695	\$ 12,546,369	
<b>Current Service Territory</b>	<b>Expansion Fund/Rate Impact</b>	\$ 127,058,119	\$ 1,845,917	\$ 4,071,383	\$ 4,590,735	\$ 5,404,419	\$ 7,040,781	\$ 7,654,244	\$ 7,466,274	\$ 7,289,080	\$ 7,118,431	\$ 6,944,322	\$ 6,772,216	\$ 6,604,773	\$ 6,442,176	\$ 6,296,093	\$ 6,197,395	\$ 6,127,739	\$ 6,054,131	\$ 5,948,011	\$ 5,823,544	\$ 5,699,699	\$ 4,760,757
<b>Statewide</b>	<b>Net Fuel Bill Savings</b>	\$ 59,566,396	\$ (1,845,927)	\$ (4,071,383)	\$ (4,590,735)	\$ (4,707,049)	\$ (11,966,502)	\$ 917,215	\$ 2,486,204	\$ 5,167,440	\$ 5,240,140	\$ 5,398,634	\$ 5,433,181	\$ 5,489,928	\$ 5,572,778	\$ 5,727,040	\$ 5,934,199	\$ 6,033,997	\$ 6,388,223	\$ 6,138,829	\$ 6,360,701	\$ 6,580,396	\$ 7,779,612
check:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	

IC Table 6Rev. Alternate Case - VGS Expansion Project  
Summary of Component Analysis on Vermont Economy - 2011/2031

5/23/2013

A. Construction + Conversion Expenditures in Addison County																					Descriptive Statistics			
Economic Metric	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Cumulative	Construction Phase (2011-2015) Average	Operations Phase (2016-2031) Average
Total Jobs	0	63	39	802	186	20	17	2	2	2	2	1	1	2	1	1	1	1	1	1	1	NA	238	4
Total Output (2012\$, 000s)	\$0.0	\$5,603.1	\$3,412.4	\$61,986.0	\$18,231.2	\$2,483.5	\$2,068.3	\$205.7	\$233.6	\$213.5	\$224.8	\$184.9	\$201.8	\$212.1	\$194.2	\$176.3	\$195.1	\$182.8	\$178.6	\$175.2	\$171.9	\$96,534.4	\$17,846.5	\$456.4
Disposable Income (2012\$, 000s)	\$0.0	\$3,447.2	\$2,073.8	\$37,153.0	\$9,968.6	\$1,256.4	\$1,042.4	\$103.4	\$117.1	\$106.6	\$112.0	\$91.8	\$100.0	\$104.8	\$95.7	\$86.6	\$95.6	\$89.4	\$87.1	\$85.2	\$83.2	\$56,298.9	\$10,528.5	\$228.5
Household Earnings (2012\$, 000s)	\$0.0	\$3,022.9	\$1,806.0	\$31,550.3	\$8,627.8	\$1,103.7	\$916.5	\$90.9	\$102.9	\$93.8	\$98.5	\$80.7	\$87.9	\$92.1	\$84.1	\$76.2	\$84.1	\$78.6	\$76.6	\$75.0	\$73.2	\$48,221.8	\$9,001.4	\$200.9
B. Household Sector																					Descriptive Statistics			
Economic Metric	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Cumulative	Construction Phase (2011-2015) Average	Operations Phase (2016-2031) Average
Total Jobs	-6	-13	-15	-18	-56	-25	-21	-14	-14	-13	-12	-12	-11	-11	-10	-10	-9	-9	-8	-8	-4	NA	-22	-12
Total Output (2012\$, 000s)	-\$509.4	-\$1,225.4	-\$1,385.8	-\$1,660.9	-\$5,000.2	-\$2,451.3	-\$2,115.7	-\$1,527.7	-\$1,481.0	-\$1,430.6	-\$1,389.7	-\$1,349.1	-\$1,307.0	-\$1,255.2	-\$1,220.8	-\$1,196.3	-\$1,170.4	-\$1,131.5	-\$1,071.1	-\$1,015.9	-\$635.9	-\$31,611.0	-\$1,972.4	-\$1,359.3
Disposable Income (2012\$, 000s)	-\$1,397.7	-\$2,911.2	-\$3,291.7	-\$3,943.7	-\$13,657.8	-\$9,825.4	-\$8,812.0	-\$3,033.9	-\$2,907.8	-\$2,770.8	-\$2,663.4	-\$2,555.6	-\$2,443.2	-\$2,303.0	-\$2,199.2	-\$2,128.6	-\$2,044.9	-\$1,935.9	-\$1,771.8	-\$1,618.4	-\$699.8	-\$66,863.8	-\$5,031.0	-\$2,606.8
Household Earnings (2012\$, 000s)	-\$236.5	-\$512.9	-\$581.3	-\$698.2	-\$2,166.3	-\$1,034.5	-\$887.8	-\$628.4	-\$608.8	-\$587.4	-\$570.1	-\$552.8	-\$534.8	-\$512.4	-\$497.2	-\$486.3	-\$474.8	-\$457.7	-\$431.2	-\$406.9	-\$243.8	-\$13,109.1	-\$838.8	-\$557.2
C. Business & All Industrial Sectors																					Descriptive Statistics			
Economic Metric	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Cumulative	Construction Phase (2011-2015) Average	Operations Phase (2016-2031) Average
Total Jobs	-8	-19	-28	-20	-51	-27	-15	0	8	13	17	20	22	23	24	23	22	20	19	17	18	NA	-27	13
Total Output (2012\$, 000s)	-\$816.3	-\$2,188.6	-\$3,287.3	-\$3,345.7	-\$3,549.9	\$1,166.5	\$6,018.4	\$8,745.3	\$11,512.3	\$13,777.2	\$15,681.1	\$17,320.1	\$18,705.8	\$19,903.2	\$21,015.5	\$21,975.2	\$22,656.9	\$23,293.7	\$23,858.8	\$24,423.8	\$25,374.7	\$261,522.8	-\$2,641.5	\$17,170.7
Disposable Income (2012\$, 000s)	-\$218.0	-\$587.5	-\$687.9	-\$1,039.4	-\$1,612.0	-\$938.9	-\$548.1	-\$41.4	\$300.5	\$543.5	\$751.2	\$907.3	\$1,019.9	\$1,094.2	\$1,145.4	\$1,158.5	\$1,103.8	\$1,026.6	\$949.3	\$874.2	\$903.5	\$5,913.8	-\$669.1	\$641.2
Household Earnings (2012\$, 000s)	NOT REPORTED																					NOT REPORTED		
D. Substitution Impact																					Descriptive Statistics			
Economic Metric	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Cumulative	Construction Phase (2011-2015) Average	Operations Phase (2016-2031) Average
Total Jobs	0	0	0	0	-11	-48	-56	-62	-62	-62	-62	-62	-62	-61	-62	-62	-62	-62	-62	-62	-63	NA	-2	-61
Total Output (2012\$, 000s)	\$0.0	\$0.0	\$0.0	\$0.0	-\$934.5	-\$1,162.6	-\$4,963.5	-\$5,580.1	-\$5,648.5	-\$5,743.8	-\$5,837.9	-\$5,935.7	-\$6,031.1	-\$6,114.9	-\$6,288.3	-\$6,363.5	-\$6,436.2	-\$6,543.2	-\$6,657.8	-\$6,810.0	-\$7,007.3	-\$97,030.9	-\$186.9	-\$6,006.0
Disposable Income (2012\$, 000s)	\$0.0	\$0.0	\$0.0	\$0.0	-\$437.4	-\$1,944.4	-\$2,313.9	-\$2,596.0	-\$2,622.4	-\$2,601.1	-\$2,599.1	-\$2,738.7	-\$2,778.0	-\$2,810.1	-\$2,870.4	-\$2,913.0	-\$2,940.9	-\$2,984.5	-\$3,031.6	-\$3,095.8	-\$3,180.4	-\$44,617.7	-\$87.5	-\$2,761.3
Household Earnings (2012\$, 000s)	\$0.0	\$0.0	\$0.0	\$0.0	-\$370.8	-\$1,648.4	-\$1,961.7	-\$2,201.0	-\$2,223.3	-\$2,256.2	-\$2,288.5	-\$2,322.1	-\$2,355.4	-\$2,382.7	-\$2,433.9	-\$2,470.1	-\$2,493.8	-\$2,530.8	-\$2,570.7	-\$2,625.2	-\$2,697.0	-\$37,831.6	-\$74.2	-\$2,341.3
E. Summary Alternate Case - VGS Expansion Project																					Descriptive Statistics			
Economic Metric	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Cumulative	Construction Phase (2011-2015) Average	Operations Phase (2016-2031) Average
Total Jobs	-14	31	-4	754	68	80	-75	-74	-66	-60	-55	-53	-50	-47	-47	-48	-48	-50	-50	-53	-48	NA	167	-57
Total Output (2012\$, 000s)	-\$1,385.7	\$2,189.1	-\$1,260.8	\$56,979.4	\$8,708.7	-\$2,663.9	\$7.5	\$1,843.2	\$4,616.4	\$6,816.3	\$8,680.3	\$10,220.2	\$11,567.5	\$12,745.2	\$13,730.6	\$14,591.7	\$15,245.4	\$15,801.8	\$16,308.5	\$16,779.1	\$17,902.8	\$229,415.3	\$19,045.7	\$10,261.7
Disposable Income (2012\$, 000s)	-\$1,565.7	-\$54.5	-\$2,105.8	\$32,169.9	-\$5,730.5	-\$7,453.3	-\$6,631.6	-\$5,607.0	-\$5,112.6	-\$4,781.8	-\$4,499.3	-\$4,295.2	-\$4,101.3	-\$3,914.1	-\$3,828.5	-\$3,791.5	-\$3,786.4	-\$3,794.4	-\$3,767.0	-\$3,754.8	-\$2,893.5	-\$49,268.8	\$4,540.9	-\$4,498.3
Household Earnings (2012\$, 000s)	NOT REPORTED																					NOT REPORTED		

Note:

1. NA means not applicable.

2. Differences in the total average compared to the summation of the individual component averages due to rounding.