

CENTRAL HUDSON GAS & ELECTRIC CORPORATION

CASE 17-E-0459 & CASE 17-G-0460

FINANCE PANEL

SCHEDULE OF EXHIBITS

REBUTTAL

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CENTRAL HUDSON GAS & ELECTRIC CORPORATION

CASE 17-E-0459 CASE 17-G-0460

FINANCE PANEL REBUTTAL

Equity Ratio and Allowed ROE Comparison

Staff Proxy Group

Schedule A	Equity Ratios and Allowed ROE Including New York
Schedule B	Equity Ratios and Allowed ROE Excluding New York

Note: Data shown in Schedules A and B sourced from SNL Financial /
Regulatory Research Associates

Index	Holding Company	Ticker	Operating Company	State	Service Type	Rate Case Completion Date	Authorized ROE	Authorized Equity Ratio
1	ALLETE, Inc.	ALE	ALLETE (Minnesota Power)	MN	Electric	Nov-2010	10.38	54.29
2	Alliant Energy Corporation	LNT	Interstate Power and Light Company	IA	Electric	Dec-2010	10.44	44.24
3	Alliant Energy Corporation	LNT	Interstate Power and Light Company	IA	Natural Gas	Nov-2012	10.00	45.03
4	Alliant Energy Corporation	LNT	Interstate Power and Light Company	MN	Electric	Aug-2011	10.35	47.74
5	Alliant Energy Corporation	LNT	Wisconsin Power and Light Company	WI	Electric	Nov-2016	10.00	52.20
6	Alliant Energy Corporation	LNT	Wisconsin Power and Light Company	WI	Natural Gas	Nov-2016	10.00	52.20
7	Ameren Corporation	AEE	Ameren Illinois Company	IL	Natural Gas	Dec-2015	9.60	50.00
8	American Electric Power Company, Inc.	AEP	AEP Texas Central Company	TX	Electric	Dec-2007	9.96	40.00
9	American Electric Power Company, Inc.	AEP	Indiana Michigan Power Company	IN	Electric	Feb-2013	10.20	50.99
10	American Electric Power Company, Inc.	AEP	Indiana Michigan Power Company	MI	Electric	Feb-2012	10.20	50.92
11	American Electric Power Company, Inc.	AEP	Kingsport Power Company	TN	Electric	Aug-2016	9.85	40.25
12	American Electric Power Company, Inc.	AEP	Ohio Power Company	OH	Electric	Dec-2011	10.30	53.79
13	American Electric Power Company, Inc.	AEP	Public Service Company of Oklahoma	OK	Electric	Nov-2016	9.50	44.00
14	American Electric Power Company, Inc.	AEP	Southwestern Electric Power Company	AR	Electric	Nov-2009	10.25	42.94
15	American Electric Power Company, Inc.	AEP	Southwestern Electric Power Company	LA	Electric	Feb-2013	10.00	NA
16	American Electric Power Company, Inc.	AEP	Southwestern Electric Power Company	TX	Electric	Oct-2013	9.65	49.10
17	Black Hills Corporation	BKH	Black Hills Colorado Electric Utility Company, LP	CO	Electric	Dec-2016	9.37	52.39
18	Black Hills Corporation	BKH	Black Hills Energy Arkansas, Inc.	AR	Natural Gas	Jan-2016	9.40	47.18
19	Black Hills Corporation	BKH	Black Hills Gas Distribution LLC	CO	Natural Gas	Dec-2010	10.00	50.48
20	Black Hills Corporation	BKH	Black Hills Gas Distribution LLC	NE	Natural Gas	May-2012	9.60	51.16
21	Black Hills Corporation	BKH	Black Hills Nebraska Gas Utility Company LLC	NE	Natural Gas	Aug-2010	10.10	52.00
22	Black Hills Corporation	BKH	Cheyenne Light, Fuel and Power Company	WY	Electric	Jul-2014	9.90	54.00
23	Black Hills Corporation	BKH	Cheyenne Light, Fuel and Power Company	WY	Natural Gas	Jul-2014	9.90	54.00
24	CenterPoint Energy, Inc.	CNP	CenterPoint Energy Houston Electric, LLC	TX	Electric	Feb-2011	10.00	45.00
25	CenterPoint Energy, Inc.	CNP	CenterPoint Energy Resources Corp.	AR	Natural Gas	Sep-2017	NA	47.13
26	CenterPoint Energy, Inc.	CNP	CenterPoint Energy Resources Corp.	LA	Natural Gas	Jul-2004	10.25	45.80
27	CenterPoint Energy, Inc.	CNP	CenterPoint Energy Resources Corp.	MN	Natural Gas	May-2016	9.49	50.00
28	CenterPoint Energy, Inc.	CNP	CenterPoint Energy Resources Corp.	TX	Natural Gas	May-2017	9.60	55.15
29	CMS Energy Corporation	CMS	Consumers Energy Company	MI	Electric	Feb-2017	10.10	52.13
30	CMS Energy Corporation	CMS	Consumers Energy Company	MI	Natural Gas	Jul-2017	10.10	53.10
31	Consolidated Edison, Inc.	ED	Consolidated Edison Company of New York, Inc.	NY	Steam	Feb-2014	9.30	48.00
32	Consolidated Edison, Inc.	ED	Consolidated Edison Company of New York, Inc.	NY	Electric	Jan-2017	9.00	48.00
33	Consolidated Edison, Inc.	ED	Consolidated Edison Company of New York, Inc.	NY	Natural Gas	Jan-2017	9.00	48.00
34	Consolidated Edison, Inc.	ED	Orange and Rockland Utilities, Inc.	NY	Electric	Oct-2015	9.00	48.00
35	Consolidated Edison, Inc.	ED	Orange and Rockland Utilities, Inc.	NY	Natural Gas	Oct-2015	9.00	48.00
36	Consolidated Edison, Inc.	ED	Rockland Electric Company	NJ	Electric	Feb-2017	9.60	49.70
37	Duke Energy Corporation	DUK	Duke Energy Carolinas, LLC	NC	Electric	Sep-2013	10.20	53.00
38	Duke Energy Corporation	DUK	Duke Energy Carolinas, LLC	SC	Electric	Sep-2013	10.20	53.00
39	Duke Energy Corporation	DUK	Duke Energy Indiana, LLC	IN	Electric	May-2004	10.50	51.91
40	Duke Energy Corporation	DUK	Duke Energy Kentucky, Inc.	KY	Natural Gas	Dec-2009	10.38	49.90
41	Duke Energy Corporation	DUK	Duke Energy Ohio, Inc.	OH	Electric	May-2013	9.84	53.30
42	Duke Energy Corporation	DUK	Duke Energy Ohio, Inc.	OH	Natural Gas	Nov-2013	9.84	53.30
43	Duke Energy Corporation	DUK	Duke Energy Progress, LLC	NC	Electric	May-2013	10.20	53.00
44	Duke Energy Corporation	DUK	Duke Energy Progress, LLC	SC	Electric	Dec-2016	10.10	53.00
45	Duke Energy Corporation	DUK	Piedmont Natural Gas Company, Inc.	SC	Natural Gas	Sep-2017	10.20	53.00
46	Duke Energy Corporation	DUK	Piedmont Natural Gas Company, Inc.	TN	Natural Gas	Jan-2012	10.20	52.71
47	Edison International	EIX	Southern California Edison Company	CA	Electric	Oct-2017	10.30	48.00
48	El Paso Electric Company	EE	El Paso Electric Company	NM	Electric	Jun-2016	9.48	49.29
49	Entergy Corporation	ETR	Entergy Louisiana, LLC	LA	Electric	Dec-2013	9.95	NA
50	Entergy Corporation	ETR	Entergy Louisiana, LLC	LA	Electric	Jul-2014	9.95	NA
51	Entergy Corporation	ETR	Entergy Mississippi, Inc.	MS	Electric	Dec-2014	10.07	NA
52	Entergy Corporation	ETR	Entergy New Orleans, Inc.	LA	Electric	Apr-2009	11.10	NA
53	Entergy Corporation	ETR	Entergy New Orleans, Inc.	LA	Natural Gas	Apr-2009	10.75	NA
54	Eversource Energy	ES	Connecticut Light and Power Company	CT	Electric	Dec-2014	9.17	50.38
55	Eversource Energy	ES	NSTAR Gas Company	MA	Natural Gas	Oct-2015	9.80	52.10
56	Eversource Energy	ES	Public Service Company of New Hampshire	NH	Electric	Jun-2010	9.67	52.40
57	Eversource Energy	ES	Yankee Gas Services Company	CT	Natural Gas	Jun-2011	8.83	52.20
58	FirstEnergy Corp.	FE	Cleveland Electric Illuminating Company	OH	Electric	Jan-2009	10.50	49.00
59	FirstEnergy Corp.	FE	Jersey Central Power & Light Company	NJ	Electric	Dec-2016	9.60	45.00
60	FirstEnergy Corp.	FE	Ohio Edison Company	OH	Electric	Jan-2009	10.50	49.00
61	FirstEnergy Corp.	FE	Toledo Edison Company	OH	Electric	Jan-2009	10.50	49.00
62	IDACORP, Inc.	IDA	Idaho Power Co.	ID	Electric	May-2017	9.50	NA
63	MGE Energy, Inc.	MGEE	Madison Gas and Electric Company	WI	Electric	Nov-2016	9.80	57.16
64	MGE Energy, Inc.	MGEE	Madison Gas and Electric Company	WI	Natural Gas	Nov-2016	9.80	57.16
65	NorthWestern Corporation	NWE	NorthWestern Corporation	MT	Electric	Sep-2014	9.80	48.00
66	NorthWestern Corporation	NWE	NorthWestern Corporation	MT	Natural Gas	Jul-2017	9.55	46.79
67	NorthWestern Corporation	NWE	NorthWestern Corporation	NE	Natural Gas	Dec-2007	10.40	NA
68	OGE Energy Corp.	OGE	Oklahoma Gas and Electric Company	AR	Electric	May-2017	9.50	50.00
69	OGE Energy Corp.	OGE	Oklahoma Gas and Electric Company	OK	Electric	Mar-2017	9.50	53.31
70	PG&E Corporation	PCG	Pacific Gas and Electric Company	CA	Electric	Oct-2017	10.25	52.00
71	Pinnacle West Capital Corporation	PNW	Arizona Public Service Company	AZ	Electric	Aug-2017	10.00	55.80
72	PNM Resources, Inc.	PNM	Public Service Company of New Mexico	NM	Electric	Sep-2016	9.58	49.61
73	PNM Resources, Inc.	PNM	Texas-New Mexico Power Company	TX	Electric	Jan-2011	10.13	45.00
74	PNM Resources, Inc.	PNM	Texas-New Mexico Power Company	NM	Electric	Jan-2002	10.00	NA
75	Portland General Electric Company	POR	Portland General Electric Company	OR	Electric	Dec-2015	9.60	50.00
76	PPL Corporation	PPL	Kentucky Utilities Company	KY	Electric	Jun-2017	9.70	NA
77	PPL Corporation	PPL	Louisville Gas and Electric Company	KY	Electric	Jun-2017	9.70	NA
78	PPL Corporation	PPL	Louisville Gas and Electric Company	KY	Natural Gas	Jun-2017	9.70	NA
79	Public Service Enterprise Group Incorporated	PEG	Public Service Electric and Gas Company	NJ	Electric	Jun-2010	10.30	51.20
80	Public Service Enterprise Group Incorporated	PEG	Public Service Electric and Gas Company	NJ	Natural Gas	Jun-2010	10.30	51.20
81	SCANA Corporation	SCG	Public Service Company of North Carolina, Incorporated	NC	Natural Gas	Oct-2016	9.70	52.00
82	SCANA Corporation	SCG	South Carolina Electric & Gas Co.	SC	Electric	Oct-2016	NA	51.35
83	SCANA Corporation	SCG	South Carolina Electric & Gas Co.	SC	Natural Gas	Sep-2017	NA	52.16
84	Southern Company	SO	Atlanta Gas Light Company	GA	Natural Gas	Feb-2017	10.55	51.00
85	Southern Company	SO	Chattanooga Gas Company	TN	Natural Gas	May-2010	10.05	46.06
86	Southern Company	SO	Gulf Power Company	FL	Electric	Apr-2017	10.25	NA
87	Southern Company	SO	Mississippi Power Company	MS	Electric	Dec-2015	9.23	49.73
88	Southern Company	SO	Northern Illinois Gas Company	IL	Natural Gas	Mar-2009	10.17	51.07
89	Southern Company	SO	Pivotal Utility Holdings, Inc.	NJ	Natural Gas	Jun-2017	9.60	46.00
90	WEC Energy Group, Inc.	WEC	Michigan Gas Utilities Corporation	MI	Natural Gas	Dec-2015	9.90	52.00
91	WEC Energy Group, Inc.	WEC	Minnesota Energy Resources Corporation	MN	Natural Gas	Sep-2014	9.35	50.31
92	WEC Energy Group, Inc.	WEC	Minnesota Energy Resources Corporation	MN	Natural Gas	Sep-2016	9.11	50.32
93	WEC Energy Group, Inc.	WEC	North Shore Gas Company	IL	Natural Gas	Jan-2015	9.05	50.48
94	WEC Energy Group, Inc.	WEC	Peoples Gas Light and Coke Company	IL	Natural Gas	Jan-2015	9.05	50.33
95	WEC Energy Group, Inc.	WEC	Wisconsin Electric Power Company	MI	Electric	Jun-2012	10.10	52.05
96	Xcel Energy Inc.	XEL	Northern States Power Company - MN	MN	Electric	May-2017	9.20	52.50
97	Xcel Energy Inc.	XEL	Northern States Power Company - MN	ND	Natural Gas	Jun-2007	10.75	51.59
98	Xcel Energy Inc.	XEL	Northern States Power Company - MN	ND	Electric	Feb-2014	9.75	52.56
99	Xcel Energy Inc.	XEL	Northern States Power Company - WI	WI	Natural Gas	Dec-2013	10.20	52.54
100	Xcel Energy Inc.	XEL	Northern States Power Company - WI	WI	Electric	Dec-2014	10.20	52.54
101	Xcel Energy Inc.	XEL	Public Service Company of Colorado	CO	Electric	Feb-2015	9.83	56.00
102	Xcel Energy Inc.	XEL	Public Service Company of Colorado	CO	Natural Gas	Feb-2016	9.50	56.51

EXHIBIT (FP-1R)
Schedule B

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63	OGE Energy Corp.	OGE	Oklahoma Gas and Electric Company	AR	Electric	May-2017	9.50	50.00
64	OGE Energy Corp.	OGE	Oklahoma Gas and Electric Company	OK	Electric	Mar-2017	9.50	53.31
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93	Xcel Energy Inc.	XEL	Northern States Power Company - MN	ND	Electric	Feb-2014	9.75	52.56
94	Xcel Energy Inc.	XEL	Northern States Power Company - WI	WI	Natural Gas	Dec-2013	10.20	52.54
95	Xcel Energy Inc.	XEL	Northern States Power Company - WI	WI	Electric	Dec-2014	10.20	52.54
96	Xcel Energy Inc.	XEL	Public Service Company of Colorado	CO	Electric	Feb-2015	9.83	56.00
97	Xcel Energy Inc.	XEL	Public Service Company of Colorado	CO	Natural Gas	Feb-2016	9.50	56.51

CENTRAL HUDSON GAS & ELECTRIC CORPORATION

CASE 17-E-0459 & CASE 17-G-0459

FINANCE PANEL REBUTTAL

Staff's Replies to Information Requests

Schedule A CH-019 (DPS)

Schedule B CH-063 (DPS)

Schedule C CH-079 (DPS)

Central Hudson Gas & Electric Corporation

PSC Case No. 17-E-0459 and 17-G-0460

INTERROGATORY / DOCUMENT REQUEST

Request No.: CH-019 (DPS)

Request Date:

Information Requested of: Department of Public Service Staff--Finance Panel

Response Due: 11/30/2017

Reply Date: 11/29/2017

Response Provided by: Staff Finance Panel

QUESTION 1:

Regarding the financial ratios in the top two-thirds of Exhibit___(SFP-8), p. 1 of 2:

- a. What specific time period is represented in the two columns identified as “Rate Year 2019?”
- b. In the calculation of Debt/Capital for “Per Company,” Deferred Income Taxes appears to be included twice. Please confirm and provide corrections as needed.
- c. In the ratings methodology publications included as Exhibit___(SFP-9) and Exhibit___(SFP-10), S&P and Moody’s discuss standard adjustments that they make to a company’s financial data when calculating their ratings? For reference, please see p. 32 of 81, paragraph 105, in Exhibit___(SFP-9) and p. 6 of 63, section 2, of Exhibit___(SFP-10).
 - i. Did the Staff Finance Panel make any adjustments to Central Hudson’s financial data in the calculation of the ratios shown in Exhibit___(SFP-8), p. 1 of 2?
 - ii. If so, what adjustments were made to FFO?
 - iii. What adjustments were made to CFO?
 - iv. Please provide relevant workpapers with formulas intact.
- d. The rating agencies typically calculate of Cash From Operations by adding back depreciation/amortizations and deferred income taxes to net income. Then adjustments are made for uncollectibles, net accrued retirement plan costs, and changes in operating assets/liabilities.
 - i. Both deferred Income Taxes and Income Tax expense appear to be added back to CFO in the Staff Finance Panel’s calculation. Please explain why these adjustments were made.

- ii. Interest Expense appears to be added back to CFO in the Staff Finance Panel's calculation. Please explain why this adjustment was made.
- iii. Please provide relevant workpapers with formulas intact.

ANSWER:

- a. For first column, it is for the Rate Year Ending June 30, 2019. For the second column, it is for the calendar year 2019 which the company used as a proxy for the rate year.
- b. The Company's Debt/Capital ratio of 31.4% is derived by dividing the total average debt of \$750 million by the sum of total average capitalization of \$1.939 billion and accumulated deferred income taxes of \$450 million.
- c.
 - i. The Staff Finance Panel notes that Moody's calculates the debt-to-total capital ratio differently. Moody's definition of total capitalization includes accumulated deferred income taxes in addition to total debt, preferred stock, other hybrid securities, and common equity. Consistent with Moody's definitional characteristics of total capital, we determined that our recommended 48% common equity ratio produces a Moody's-based 39.0% debt-to-total capitalization
 - ii. No adjustment
 - iii. No adjustment
 - iv. Please see Attachment 1 of CH-019 (DPS)
- d.
 - i. Cash From Operations (CFO) should not include both deferred income taxes and income tax expense. Therefore, Staff Finance Panel has excluded the \$39.199 million income tax expense for the CFO calculation. This change combined with other corrections indicate that Central Hudson's implied rating is consistent with "A-" S&P rating and Moody's "A2" rating.
 - ii. Cash From Operations should not include interest expense. Again, this change combined with other corrections indicate that Central Hudson's implied rating is still consistent with "A-" S&P rating and Moody's "A2" rating.
 - iii. Please see Attachment 1 of CH-019 (DPS).

QUESTION 2:

Regarding the Standard & Poor's Credit Metrics in Exhibit___(SFP-8), p.1 of 2:

- a. In Exhibit___(SFP-9), S&P makes a distinction between business risk and financial risk as the basis for developing their ratings. For reference, please see the Corporate Criteria Framework on p. 6 of 81. For the S&P Implied Ratings calculated in Exhibit___(SFP-8),

please confirm the relative weighting between business risk and financial risk reflected in the calculation.

- b. In Exhibit___(SFP-9), page 31 of 81, S&P notes that financial risk is measured by two core financial ratios (paragraph 101) with consideration given to five supplemental ratios (paragraph 102) used for fine-tuning. For the S&P Implied Ratings calculated in the exhibit, please identify the core ratios and the supplemental ratios and confirm the weights assigned to each of the financial ratios used in the calculation. Please provide all relevant workpapers with formulas intact.

ANSWER:

- a. The Staff Finance Panel is not aware of S&P’s relative weighting between business risk and financial risk.
- b. The core ratios are FFO/ Debt and Debt/EDITDA and the remaining two coverage ratios and three payback ratios are the supplemental ratios as per the insert below. Please refer to page 36 of Exhibit___(SFP-9). Unlike Moody’s which assigns specific weights to its various metrics, the Staff Finance Panel is not aware of any such weights applied by S&P to its various financial ratios.

Table 18

Cash Flow/Leverage Analysis Ratios--Medial Volatility							
	--Core ratios--		--Supplementary coverage ratios--		--Supplementary payback ratios--		
	FFO/debt (%)	Debt/EBITDA (x)	FFO/cash interest (x)	EBITDA/interest (x)	CFO/debt (%)	FOCF/debt (%)	DCF/debt (%)
Minimal	50+	less than 1.75	10.5+	14+	40+	30+	18+
Modest	35-50	1.75-2.5	7.5-10.5	9-14	27.5-40	17.5-30	11-18
Intermediate	23-35	2.5-3.5	5-7.5	5-9	18.5-27.5	9.5-17.5	6.5-11
Significant	13-23	3.5-4.5	3-5	2.75-5	10.5-18.5	5-9.5	2.5-6.5
Aggressive	9-13	4.5-5.5	1.75-3	1.75-2.75	7-10.5	0-5	(11)-2.5
Highly leveraged	Less than 9	Greater than 5.5	Less than 1.75	Less than 1.75	Less than 7	Less than 0	Less than (11)

QUESTION 3:

- a. Regarding the Detailed Moody’s Credit Analysis on p. 2 of 2 in Exhibit___(SFP-8): Footnote 2 cites the source if the qualitative ratings as Moody’s Credit Opinion on Central Hudson from July 2017. That report is included as Exhibit___(SFP-12). The Moody’s report rates “Sufficiency of Rates and Returns” as Baa (see p. 5 of 6). Exhibit___(SFP-8) shows a rating of Aa for “Sufficiency of Rates and Returns.”
- i. Please confirm whether that the Staff Finance Panel’s use of Aa for that criterion in both tables was intended or in error.
 - ii. If intended, please explain why the Staff Finance Panel increased that rating from Baa to Aa for their analysis.

- iii. If in error, please provide an updated exhibit that corrects both tables and footnote 2.
- iv. As page 2 of the Exhibit appears to be used in page 1, please provide an update to page 1 to reflect any corrections made on page 2.

ANSWER:

- a.
 - i. It was an error. Just like all the other major New York energy utility operating companies, with the exception of National Fuel Gas, Central Hudson's Moody's score for "Sufficiency of Rates and Returns" is "Baa" but not "Aa". This change combined with other corrections indicate that Central Hudson's implied rating is still consistent with "A-" S&P rating and a Moody's rating of "A2". As a result of these corrections, Staff Finance Panel has accordingly revised their Exhibit__(SFP-8) and Exhibit__(SFP-11). See Attachment xx to CH-019 (DPS) and Attachment xx to CH-019 (DPS). As pointed out on page 31 of Staff Finance Panel testimony, the issues of leverage and credit ratings was discussed in detailed in the Generic Finance Proceeding (Case 91-M-0509) and a "BBB" rating was generally found to be the least costly. It was also found that capitalizing in a manner consistent with an "A" rating, while costlier, could be justified because of the added safety margin it provided. With both of its current Moody's and S&P ratings within the "A" category, Central Hudson already has a sufficient safety margin.
 - ii. Not Applicable
 - iii. See response in bullet (a) sub (i) above
 - iv. See response in bullet (a) sub (i) above

QUESTION 4:

In Exhibit__(SFP-8), the Staff Finance Panel estimates a forward view of Central Hudson's implied credit rating under the Moody's framework as A2. In Exhibit__(SFP-12), p. 5 of 6, Moody's own comparable forward view of the implied rating, "b) Indicated Rating From Grid," is A3. Please explain why the Staff Finance Panel's forward view differs from Moody's.

ANSWER:

As per our corrections, Central Hudson's implied rating is still consistent with "A-" S&P rating and Moody's rating of "A2". The same Moody's report indicates that the "Actual Rating Assigned" to Central Hudson credit rating is "A2" going forward for the next 12 to 18 months. Therefore, consistent with our testimony on page 39, line 23, that Moody's assessment indicated a "Stable" outlook for Central Hudson's rating, we believe Central Hudson's rating is not likely to change over the intermediate term.

QUESTION 5:

The Staff Finance Panel testimony, from line 24 on page 39 to line 13 on page 40, associates Staff's estimated implied ratings for Rate Year 2019 with the rating agencies' own assigned stable outlooks for their ratings of Central Hudson. In the recent years reflected in the rating agencies' credit analysis, Central Hudson has had an allowed ROE of 9.0% and an actual equity ratio of 50%. Do you believe that S&P and Moody's would reach the same conclusions on credit ratings and outlook at an allowed ROE of 8.3% and an actual equity ratio of 48%?

ANSWER:

Staff Finance Panel has not conducted any analysis of the likely conclusion of the credit rating agencies if our recommended ROE and equity ratio are adopted by the Commission. However, Staff Finance Panel believes that rating agencies conclusion is likely going to be based on actual results. Moreover, given Staff's recommendation for the continuation of majority of the Company's existing true-up and deferral mechanisms, and new EAMs initiative that would likely enable the Company to enhance its earnings above and beyond our recommended ROE, we believe that the Company will be able to maintain its rating(s).

QUESTION 5:

Please provide the detailed calculations and schedules supporting the long-term debt adjustments of \$28 million and \$18 million noted on page 53 of the Staff Finance Panel testimony (lines 12 and 16 respectively).

ANSWER:

For the detailed calculations and schedules supporting the long-term debt adjustments of \$28 million, please refer to Staff Finance Panel Exhibit___(SFP-2). It is the difference between the Company's \$697.95 million long-term debt and Staff Finance Panel's long-term debt of \$726.34 million. The \$18 million noted on page 53 of the Staff Finance Panel testimony reflects Staff Electric Infrastructure and Operations and Gas Infrastructure and Operations Panels' \$36 million downward adjustment for capital expenditure from \$235,600,000 to \$199,200,000 and the result adjusted to account for the average adjustment for the Rate Year as shown below.

	Capital Expenditures
Company (Company Exhibit DPS - E 001 - FP Exhibits - work papers)	\$235,600,000
Staff (Per Staff Finance Panel Exhibit SFP-8)	\$199,200,000
Difference (downward adjustment)	\$36,400,000
50% of the difference representing the rate year average adjustment	\$18,200,000
Average adjustment for the Rate year	\$18,200,000

Central Hudson Gas & Electric Corporation Implied Credit Metrics

	Per Staff	Ratings Category	Per Company	Ratings Category
	<u>2019 Rate Year</u>		<u>2019 Rate Year</u>	
Net Income	\$56,232,862		\$69,467,000	
Depreciation and Amortization	\$63,053,000		\$63,743,000	
Net Pension & OPEBs Accrual & Deferral	(\$11,285,000)		(\$11,285,000)	
Misc. (AFUDC, SIR, Uncollectibles, Rev phase-in)	(\$10,224,000)		(\$10,224,000)	
Deferred Income Taxes	<u>\$40,348,329</u>		\$40,644,000	
Funds From Operation (FFO)	\$138,125,191		\$152,345,000	
Cash Flow From Operation (CFO)	\$159,634,191		\$251,644,000	
Free Operating Cash Flow (FOCF)	(\$39,565,809)		\$16,044,000	
Discretionary Cash Flow (DCF)	(\$59,565,809)		\$10,044,000	
Changes in Working Capital	-			
Net Income	\$56,232,862		\$69,467,000	
Interest Expense	\$31,312,144		\$33,030,000	
Income Tax expense	\$39,199,330			
Income Taxes Payable			\$44,760,000	
Current Taxes to be paid			(\$4,116,000)	
Operating leases			\$1,505,000	
Depreciation and Amortization	<u>\$63,053,000</u>		\$63,743,000	
EBITDA	<u>\$189,797,336</u>		\$208,389,000	
Capital Expenditures	\$199,200,000		\$235,600,000	
Dividend Payments	\$20,000,000		\$6,000,000	
Accumulated Deferred Income Taxes	\$449,866,000		\$450,706,000	
Total Average Debt	\$726,324,057		\$750,950,000	
Total Average Capitalization	\$1,411,467,417		\$1,939,995,500	
Standard & Poor's Credit Metrics				
Funds from Operation/Debt	19.02%	Significant	20.3%	Significant
Debt/EBITDA (x)	3.83x	Significant	3.6x	Significant
(FFO +Interest)/Interest	5.41x	Intermediate	5.61x	Intermediate
EBITDA/Interest	6.06x	Intermediate	6.3x	Intermediate
CFO/Debt	21.98%	Intermediate	33.5%	Modest
FOCF/Debt	-5.45%	Highly leveraged	2.1%	Aggressive
DCF/Debt	-8.20%	Aggressive	1.3%	Aggressive
Business Risk Profile		Excellent		Excellent
Implied Rating		A-		A/A-
Moody's Credit Metrics				
(CFO pre-WC + Interest)/Interest	6.10x	Aa3	8.62x	Aaa
CFO pre-WC / Debt	21.98%	A2	33.51%	Aa2
(CFO pre-WC-Dividends)/Debt	19.22%	A2	32.71%	Aa1
Debt/Capitalization	39.02%	Aa3	31.41%	Aa1
Implied Rating		A2		A1

Detailed Moody's Credit Metrics Analysis:Staff Recommendation

Qualitative Factors	Weight ¹	Rating ²	Score	W'ted Score
Regulatory Framework	25%	A	6	1.50
Legislative and Judicial Underpinnings of the Regulatory Frame work	12.5%	A	6	0.75
Consistency and Predictability of Regulation	12.5%	A	6	0.75
Ability to Recover Cost and Earn Returns	25%			
Timeliness of Recovery of Operating and Capital Costs	12.5%	Aa	3	0.38
Sufficiency of Rates and Returns	12.5%	Baa	9	1.13
Diversity	10%	Ba	12	1.20
Financial Strength				
Cash Flow Interest Coverage	7.5%	Aa3	4	0.30
Cash Flow/Debt	15.0%	A2	6	0.90
Retained Cash Flow/Debt	10.0%	A2	6	0.60
Debt/Capital	7.5%	Aa3	4	0.30
Total	100%		5.00	6.30
Implied Rating				A2

Detailed Moody's Credit Metrics Analysis:Company's filing

Qualitative Factors	Weight	Rating	Score	W'ted Score
Regulatory Framework	25%	A	6	1.50
Legislative and Judicial Underpinnings of the Regulatory Frame work	12.5%	A	6	0.75
Consistency and Predictability of Regulation	12.5%	A	6	0.75
Ability to Recover Cost and Earn Returns	25%	N/A	N/A	N/A
Timeliness of Recovery of Operating and Capital Costs	12.5%	Aa	3	0.38
Sufficiency of Rates and Returns	12.5%	Baa	9	1.13
Diversity	10%	Ba	12	1.20
Financial Strength				
Cash Flow Interest Coverage	7.5%	Aaa	1	0.08
Cash Flow/Debt	15.0%	Aa2	3	0.45
Retained Cash Flow/Debt	10.0%	Aa1	2	0.20
Debt/Capital	7.5%	Aa1	2	0.15
Total	100%			5.08
				A1

¹Moody's respective weightings of 25%, 10%, and 25% for Regulatory Framework, Diversity, and Ability to Recover Cost and Earn Returns were taken from page 6 of Moody's Rating Methodology for Electric and Gas Utilities, published December 23, 2013.

²Central Hudson's respective ratings of "A", "Ba", and "Aa" for Regulatory Framework, Diversity, and Ability to Recover Cost and Earn Returns were taken from page 4 of Moody's Credit Opinion on Central Hudson, published July 19, 2017.

³ 10% weight for issuers that lack generation

⁴ 0% weight for issuers that lack generation

Central Hudson Gas & Electric Corporation

PSC Case No. 17-E-0459 and 17-G-0460

INTERROGATORY / DOCUMENT REQUEST

Request No.: CH-063 (DPS)

Request Date: 11/28/2017

Information Requested of: Department of Public Service Staff--Finance Panel

Response Due: 12/06/2017

Reply Date: 12/05/17

Response Provided by: Staff Finance Panel

QUESTION:

On page 50 of the Staff Finance Panel testimony, at lines 10-16, the cost of new long-term debt is estimated to be 3.97%, rounded up to 4.0%. Reference is made to Exhibit___(SFP-16) as the source of the estimate. Our check of the figures shows that the average for the two relevant columns (A2/A and A3/A-) yields 4.07%, which would round up to 4.10%.

- a. Please confirm the estimated cost of new long-term debt and provide workpapers with spreadsheet formulas intact.
- b. As needed, please provide corrections to Exhibit___(SFP-16).

ANSWER:

- a. The Staff Finance Panel confirms that the estimated cost of new long-term debt is 3.97%, rounded up to 4.0% based upon the average of 3.91% and 4.03% yields for "A2" and "A-" rated utility long-term debt respectively, interpolated from the October 2017 Mergent Bond Record edition as shown in the insert 1 and in the appendix labeled *CH-063 DPS Cost of long Term Debt Attachment 1.xlsx*

Insert 1: Derivation of Marginal Cost of Long-Term Debt for Central Hudson Gas & Electric

Public Utility Bond Yield Averages (%)
(Source: Mergent Bond Record, Oct., 2017)

Month	Aa2	Aa3	A1	A2	A3	Baa1	Baa2
	AA	AA-	A+	A	A-	BBB+	BBB
Mar-17	4.04	4.10	4.17	4.23	4.36	4.49	4.62
Apr-17	3.93	3.99	4.06	4.12	4.25	4.38	4.51
May-17	3.94	4.00	4.06	4.12	4.25	4.37	4.50
Jun-17	3.77	3.83	3.88	3.94	4.07	4.20	4.32
Jul-17	3.82	3.88	3.94	3.99	4.12	4.24	4.36
Aug-17	3.67	3.74	3.80	3.86	3.99	4.11	4.23
Sep-17	3.70	3.76	3.81	3.87	3.99	4.11	4.24
Oct-17	3.74	3.80	3.85	3.91	4.03	4.14	4.26
	Yield on A-/A2 (%)			3.9675			
	Marginal Cost of Debt for CHG&E(%)			3.9675			

- b. N/A – See above response. The Staff Finance Panel calculations are correct, and therefore, Exhibit___(SFP-16) doesn't need any correction.

Cases 17-E-0459 & 17-G-0460

Exhibit____(SFP-16)

2 of 2

**CENTRAL HUDSON'S HISTORICAL ISSUANCE EXPENSE
AS A PERCENTAGE OF PRINCIPAL DEBT ISSUED**

	Principal Issued (x\$1,000)	Issuance Expense (x\$1,000)	Expense as a % of Principal
1999 Series B Variable	\$33,700	\$302.4	0.90%
2004 Series E @ 5.05%	\$27,000	\$59.5	0.22%
2005 Series E @ 5.84%	\$24,000	\$188.4	0.79%
2006 Series E @ 5.76%	\$27,000	\$257.7	0.95%
2007 Series F @ 5.80%	\$33,000	\$280.3	0.85%
2007 Series F @ 6.03%	\$33,000	\$27.3	0.08%
2009 Series F @ 5.80%	\$24,000	\$247.9	1.03%
2010 Series G @ 4.15%	\$44,150	\$193.5	0.44%
2010 Series G @ 5.716%	\$30,000	\$250.2	0.83%
2011 Series G @ 3.378%	\$23,400	\$154.2	0.66%
2011 Series G @ 4.707%	\$10,000	\$109.3	1.09%
2012 Series G @ 4.776%	\$48,000	\$534.8	1.11%
2012 Series G @ 4.065%	\$24,000	\$321.1	1.34%
2010 Series A @ 4.30%	\$16,000	\$37.3	0.23%
2010 Series B @ 5.64%	\$24,000	\$118.7	0.49%
2013 Series C @ 2.45%	\$30,000	\$55.7	0.19%
2013 Series D @ 4.09%	\$16,700	\$124.7	0.75%
2014 Series E Variable	\$30,000	\$150.4	0.50%
2015 Series F @ 2.98%	\$20,000	\$129.4	0.65%
2016 Series G @ 2.16%	\$24,000	\$164.7	0.69%
2016 Series H @ 2.56%	\$10,000	\$89.8	0.90%
2016 Series I @ 3.63%	\$20,000	\$140.6	0.70%
Average	\$25,997.73	\$179	0.70%

**Corporate Bond Yield Averages
Public Utility Bond Yield Averages
(Source: Mergent Bond Record, Oct., 2017)**

Month	Aa2	Aa3	A1	A2	A3	Baa1	Baa2
	AA	AA-	A+	A	A-	BBB+	BBB
Mar-17	4.04	4.10	4.17	4.23	4.36	4.49	4.62
Apr-17	3.93	3.99	4.06	4.12	4.25	4.38	4.51
May-17	3.94	4.00	4.06	4.12	4.25	4.37	4.50
Jun-17	3.77	3.83	3.88	3.94	4.07	4.20	4.32
Jul-17	3.82	3.88	3.94	3.99	4.12	4.24	4.36
Aug-17	3.67	3.74	3.80	3.86	3.99	4.11	4.23
Sep-17	3.70	3.76	3.81	3.87	3.99	4.11	4.24
Oct-17	3.74	3.80	3.85	3.91	4.03	4.14	4.26

Yield on A-/A2 (%) 3.9675
Marginal Cost of Debt for CHG&E(%) 3.9675

Central Hudson Gas & Electric Corporation

PSC Case No. 17-E-0459 and 17-G-0460

INTERROGATORY / DOCUMENT REQUEST

Request No.: CH-079 (DPS)

Request Date: 11/30/2017

Information Requested of: Department of Public Service Staff

Response Due: 12/08/2017

Reply Date: 12/05/2017

Response Provided by: Staff Finance Panel

QUESTION:

In response to CH-019 (DPS), Staff provided a Corrected Exhibit___(SFP-8) and supporting workpapers. In the corrected exhibit, the Moody's ratios calculated in the "Per Company" column and the resulting Moody's implied ratings differ significantly from those provided by the Company in Exhibit___(FP-5), Schedule E.

- a. Please confirm that the S&P credit metrics shown on Staff's corrected exhibit for "per Company" were calculated by Staff and not by the Company.
- b. Has Staff backtested the methodology reflected in the calculation of S&P and Moody's credit ratios and Implied Ratings in the corrected exhibit by estimating the actual ratios reported by S&P and Moody's for any of the years 2012 through 2016? Please reference the Company's response to request DPS-385, which provides the actual measurements from S&P and Moody's.
- c. Has Staff reconciled the calculation of Moody's Credit Metrics in its corrected exhibit to the Company's corresponding exhibit?
- d. How does Staff explain the significant difference between their results and those calculated by the Company?
- e. Please reference Moody's credit report for Central Hudson in Exhibit___(SFP-12), p. 5 of 6. Moody's 12-18 Month Forward View shows "A3" as the comparable implied rating. Considering the difference in ROE between Moody's expectations (9%) and Staff's recommendation (8.3%), how does Staff explain its estimate of the higher implied rating of "A2?"

ANSWER:

- a. Yes. The Staff Finance Panel confirms that the S&P credit metrics shown on Staff's corrected exhibit for "per Company" were calculated by Staff and not by the Company.
- b. No, the Staff Finance Panel has not backtested the methodology reflected in the calculation of S&P and Moody's credit ratios and Implied Ratings in the corrected exhibit by estimating the actual ratios reported by S&P and Moody's for any of the years 2012 through 2016. However, as mentioned on page 32 through page 40 of our direct testimony, we based our analysis on the overall credit metrics used by Moody's and S&P in evaluating both the financial and business risks of regulated electric and gas utilities as per our Exhibit___(SFP-9) and Exhibit___(SFP-10) that contain S&P's and Moody's latest rating guidelines, respectively.
- c. Yes, the Staff Finance Panel performed reconciliations and recalculated the Company's financial metrics to be consistent with Moody's definitional characteristics of those metrics. For instance, for all CFO-based metrics, the Company used "*Funds From Operation (FFO)*" of \$152.345 million instead of "*Cash Flow From Operation (CFO)*" of \$251.644 million. Similarly, for Retained Cash Flow/Debt defined as CFO pre-WC minus dividends divided by debt, the Company's worksheet calculation effectively added dividend to the CFO instead of subtracting.
- d. The difference between the Staff Finance Panel results and those calculated by the Company is due to:
 1. Timing differences. Company used calendar year estimates versus rate year results by Staff Finance Panel
 2. Difference in assumptions. For example, in one of its scenarios, the Company used 9% ROE and 48% common equity ratio compared to 8.3% ROE and 48% common equity ratio by Staff Finance Panel. We also noted that the financial metrics for the last twelve months (LTM) ending 3/31/2016 calculated by the Company are different from those calculated by Moody's as shown in insert 1. For instance, the Company's "Debt/Capitalization" for LTM 3/31/2016 is 46% compared to 41.2% by Moody's.
- e. As indicated in Staff Finance Panel's response to IR *CH-019 (DPS) Question 4*, the same Moody's report, Exhibit___(SFP-12), indicates that the "Actual Rating Assigned" to Central Hudson credit rating is "A2" going forward for the next 12 to 18 months. Therefore, consistent with our testimony on page 39, line 23, that Moody's assessment indicated a "Stable" outlook for Central Hudson's rating, we believe Central Hudson's rating is not likely to change over the intermediate term.

Insert 1: *Financial Metric Calculated by Moody's (Moody's Credit Opinion published July 2016)*

Key Indicators

Exhibit 2

KEY INDICATORS [1]

Central Hudson Gas & Electric Corporation

	12/31/2012	12/31/2013	12/31/2014	12/31/2015	3/31/2016(LTM)
CFO pre-WC + Interest / Interest	5.1x	5.3x	5.1x	5.0x	5.5x
CFO pre-WC / Debt	23.3%	29.1%	23.2%	20.9%	23.8%
CFO pre-WC - Dividends / Debt	19.8%	24.8%	22.3%	17.0%	20.7%
Debt / Capitalization	45.9%	39.9%	41.8%	42.1%	41.2%

Insert 2: *Financial Metric Calculated by Company (Company Finance Panel's Exhibit (FP-5), Schedule E)*

**CENTRAL HUDSON GAS & ELECTRIC CORPORATION
CASE 17-E & CASE 17-G
CREDIT RATING FORECAST SCENARIOS: QUANTITATIVE**

Moody's Framework from Recent Credit Opinions	LTM 3/31/2016 Central Hudson "Current" View	
Measure and Assigned Score from credit opinions <i>Estimated Weighted Score is estimated from Table 1</i>	Measure	Assigne Score
Factor 4: Financial Strength, Liquidity And Key Financial Metrics (40%)		
a) CFO pre-WC + Interest/ Interest (3 Year Avg) (7.5%)	5.1x	A2
b) CFO pre-WC / Debt (3 Year Avg) (15%)	23%	A2
c) CFO pre-WC - Dividends / Debt (3 Year Avg) (10%)	19%	A2
d) Debt/Capitalization (3 Year Avg) (7.5%)	46%	A2

CENTRAL HUDSON GAS & ELECTRIC CORPORATION

CASE 17-E-0459 & CASE 17-G-0460

FINANCE PANEL REBUTTAL

Reconciliation and Corrections to Credit Metrics

Reconciliation of Moody's Credit Metrics ¹

	Actual			Per Staff Rate Yr 2019	Updated Calendar Year 2019 ²
	2014	2015	2016		
Components					
Net Income	33,844	45,588	52,644	56,233	56,233
Depreciation & Amortization	43,859	44,074	46,509	63,053	63,053
Deferred Income Taxes	10,976	22,777	34,726	40,348	40,348
Working Capital CFLW	(23,387)	(9,117)	4,370		
Other Operating Cash Flow	39,326	6,877	47,210		(21,509)
Cash Flow From Operations (CFO)	104,618	110,199	185,459	159,634	138,125
Interest Expense	31,571	30,108	30,184	31,312	31,312
Short term Debt	0	27,000	0		
Long Term Debt Principle	505,950	517,950	538,950		
Unamortized Debt Issuance Costs	(4,096)	(3,894)	(3,938)		
Current Maturities-Long Term Debt	0	8,000	33,000		
Long Term Debt (LT)	501,854	522,056	568,012	726,324	726,324
Common dividends (Infusions)	5,000	24,524	24,524	20,000	20,000
Total Equity	536,086	557,150	585,270	685,143	685,143
Accumulated Deferred Income Taxes	282,188	302,288	339,706	449,866	449,866
Ratios					
CFO pre-WC + Interest/Interest Ratio-7.5%	5.1x	5.0x	6.7x	6.1x	5.3x
Cash Flow From Operations	104,618	110,199	185,459	159,634	138,125
Operating lease Moody's Adj.	1,194	1,115	1,211	0	1,174
Pensions Moody's Adj.	6,266	9,579	0	0	4,214
Adjusted Cash Flow from Operations	112,078	120,893	186,670	159,634	143,513
Exclude Change in Working Capital	23,387	9,117	(4,370)	0	0
+ Interest Expense	31,571	30,108	30,184	31,312	31,312
Pension Moody's Adj.	1,084	2,330	1,741	0	1,718
Operating lease Moody's Adj.	306	285	188	0	260
Adjusted Interest Expense	32,961	32,723	32,113	31,312	33,290
Adjusted CFO pre-WC + Interest	168,426	162,733	214,414	190,946	176,803
Adjusted Interest Expense	32,961	32,723	32,113	31,312	33,290
CFO pre-WC/Debt Ratio-15.0%	23.2%	20.9%	29.5%	22.0%	19.4%
Adjusted Cash Flow From Operations	112,078	120,893	186,670	159,634	143,513
Exclude Change in Working Capital	23,387	9,117	(4,370)	0	0
Adjusted CFO Pre-WC	135,465	130,010	182,300	159,634	143,513
Short Term Debt	0	27,000	0	0	0
Long Term Debt	501,854	522,056	568,012	726,324	726,324
Pension Moody's Adj.	69,593	60,651	40,320	0	4,780
Operating lease Moody's Adj.	9,090	7,615	5,600	0	4,896
Unamortized cost Moody's Adj.	4,096	3,894	3,938	0	3,976
Adjusted LT Debt	584,633	594,216	617,870	726,324	739,976
Adjusted Debt	584,633	621,216	617,870	726,324	739,976
CFO pre-WC-Dividends/Debt-10%	22.3%	17.0%	25.5%	19.2%	16.7%
Adjusted Cash Flow From Operations	112,078	120,893	186,670	159,634	143,513
Exclude Change in Working Capital	23,387	9,117	(4,370)	0	0
-Common Dividends	(5,000)	(24,524)	(24,524)	(20,000)	(20,000)
Adjusted CFO pre-WC-Dividends	130,465	105,486	157,776	139,634	123,513
Short Term Debt	0	27,000	0	0	0
Adjusted Long Term Debt	584,633	594,216	617,870	726,324	739,976
Adjusted Debt	584,633	621,216	617,870	726,324	739,976
Debt/Capitalization Ratio-7.5%	41.8%	42.1%	40.1%	39.0%	39.5%
Short Term Debt	0	27,000	0	0	0
Adjusted Long Term Debt	584,633	594,216	617,870	726,324	739,976
Adjusted Debt	584,633	621,216	617,870	726,324	739,976
Short Term Debt	0	27,000	0	0	0
Adjusted Long Term Debt	584,633	594,216	617,870	726,324	739,976
Total Equity	536,086	557,150	585,270	685,143	685,143
Unamortized debt issuance cost Moody's Adj.	(4,096)	(3,894)	(3,938)	0	(3,976)
Adjusted Equity	531,990	553,256	581,332	685,143	681,167
Accumulated Deferred Income Taxes	282,188	302,288	339,706	449,866	449,866
Adjusted Book Capitalization	1,398,811	1,476,760	1,538,908	1,861,333	1,871,009

¹Calculated by Central Hudson in accordance with Moody's Rating Methodology for Electric and Gas Utilities, published December 23, 2013.

²Corrections to credit metrics in Corrected Exhibit_(SFP-8)

Reconciliation of S&P's Credit Metrics ¹

	Actual			Per Staff	Updated
	2014	2015	2016	Rate Yr 2019	Rate Yr 2019 ²
Components					
Net Income	33,844	45,588	52,644	56,233	56,233
Depreciation & Amortization	43,859	44,074	46,509	63,053	63,053
Deferred Income Taxes	10,976	22,777	34,726	40,348	40,348
Working Capital CFLW	(23,387)	(9,117)	4,370		
Other Operating Cash Flow	39,326	6,877	47,210		(21,509)
Cash Flow From Operations-CFO	104,618	110,199	185,459	159,634	138,125
Cash Flow From Operations				159,634	138,125
Other Operating Cash Flow				(21,509)	21,509
Funds From Operations-FFO				138,125	159,634
Net Income	33,844	45,588	52,644	56,233	56,233
+ Interest Expense	31,571	30,108	30,184	31,312	31,312
- Interest Income	4,355	3,551	2,795	0	3,567
- Other Income	1,045	2,522	1,153	0	0
Income Taxes	22,361	31,146	31,832	39,199	39,199
Operating Income	82,376	100,769	110,712	126,744	123,177
Depreciation & Amortization	43,859	44,074	46,509	63,053	63,053
EBITDA	126,235	144,843	157,221	189,797	186,230
Interest expense	31,571	30,108	30,184	31,312	31,312
Interest Income	4,355	3,551	2,795		3,567
Accrued Interest-Not Included in Debt	5,618	5,451	5,762		5,610
Deferred Taxes	10,976	22,777	34,726	40,348	40,348
Current Tax expense	11,385	8,369	(2,894)	(1,149)	(1,149)
Income Taxes	22,361	31,146	31,832	39,199	39,199
Accumulated Deferred Income Taxes	282,188	302,288	339,706	449,866	449,866
Short Term Debt	0	27,000	0		
Principal Amount-LT Debt	505,950	517,950	538,950		
Current Maturities	0	8,000	33,000		
Unamortized Debt Costs	(4,096)	(3,894)	(3,938)		
Total Debt	501,854	549,056	568,012	726,324	726,324
Cash	18,303	5,935	12,822		2,533
Equity	536,086	557,150	585,270	685,143	685,143
Capital Expenditures	113,190	140,648	175,894	199,200	199,200
Dividend Payments (Infusions)	5,000	24,524	24,524	20,000	20,000
Ratios					
Funds from Operations/Debt	14.1%	17.5%	23.8%	19.0%	19.8%
EBITDA	126,235	144,843	157,221	0	186,230
-Interest Expense	(31,571)	(30,108)	(30,184)	0	(31,312)
+ Interest Income	4,355	3,551	2,795	0	3,567
-Current Tax expense	(11,385)	(8,369)	2,894	0	1,149
Operating Leases-S&P Adj.	1,334	1,367	1,245	0	1,315
Post Retirements Benefits obligation/Deferred Comp-S&P Adj.	(9,827)	(5,236)	8,328	0	(13,813)
Capitalized Interest-S&P Adj.	(400)	(600)	(700)	0	(567)
Share Based Compensation Expense-S&P Adj.	595	1,074	2,065	0	1,245
S&P Adjusted Fund From Operations (FFO)	79,336	106,522	143,665	138,125	147,815
Principal Debt-LT	505,950	549,056	568,012	0	726,324
Operating Leases-S&P Adj.	8,150	6,703	5,007	0	6,620
Post Retirements Benefits obligation/Deferred Comp-S&P Adj.	61,379	51,770	34,024	0	7,758
Cash-S&P Adj	(18,303)	(5,935)	(12,822)	0	(2,533)
Debt (Accrued interest not included in Debt) S&P Adj.	5,618	5,451	5,762	0	5,610
Debt-Issuance Cost-S&P Adj.	0	0	3,938	0	3,938
S&P Adjusted Debt	562,793	607,045	603,920	726,324	747,717
Debt/EBITDA	4.6x	4.1x	3.6x	3.8x	4.2x
S&P Adjusted Debt	562,793	607,045	603,920	726,324	747,717
EBITDA	126,235	144,843	157,221	189,797	186,230
Operating Leases-S&P Adj.	1,910	1,887	1,655	0	1,817
Post Retirements Benefits obligation/Deferred Comp-S&P Adj.	(5,321)	(521)	6,631	0	(11,855)
Share-Based compensation (expense)	595	1,074	2,065	0	1,245
S&P Adjusted EBITDA	123,419	147,283	167,572	189,797	177,437

	Actual			Per Staff	Updated
	2014	2015	2016	Rate Yr 2019	Rate Yr 2019 ²
(FFO + Interest)/Interest	3.2x	4.2x	5.2x	5.4x	5.4x
S&P Adjusted Fund From Operations (FFO)	79,336	106,522	143,665	138,125	147,815
S&P Adjusted Interest Expense	36,029	33,742	34,487	31,312	33,334
S&P Adjusted Fund From Operations (FFO) + Interest	115,365	140,264	178,152	169,437	181,149
Interest Expense	31,571	30,108	30,184	31,312	31,312
Operating Leases-S&P Adj.	575	520	410	0	502
Post Retirements Benefits obligation/Deferred Comp-S&P Adj.	3,483	2,514	3,193	0	954
Capitalized Interest-S&P Adj.	400	600	700	0	567
S&P Adjusted Interest Expense	36,029	33,742	34,487	31,312	33,334
EBITDA/Interest	3.4x	4.4x	4.9x	6.1x	5.3x
S&P Adjusted EBITDA	123,419	147,283	167,572	189,797	177,437
S&P Adjusted Interest Expense	36,029	33,742	34,487	31,312	33,334
CFO/Debt	19.1%	19.0%	29.3%	22.0%	18.8%
Cash Flow From Operations	104,618	110,199	185,459	159,634	138,125
Operating Leases-S&P Adj.	1,334	1,367	1,245	0	1,315
Post Retirements Benefits obligation/Deferred Comp-S&P Adj.	1,900	4,088	(9,083)	0	1,863
Capitalized Interest-S&P Adj.	(400)	(600)	(700)	0	(567)
S&P Adjusted Cash Flow from Operations (CFO)	107,452	115,054	176,922	159,634	140,737
S&P Adjusted Debt	562,793	607,045	603,920	726,324	747,717
FOCF/Debt	-0.9%	-4.1%	0.3%	-5.4%	-7.7%
S&P Adjusted Cash Flow from Operations (CFO)	107,452	115,054	176,922	159,634	140,737
-S&P Adjusted Capital Expenditures	(112,790)	(140,048)	(175,194)	(199,200)	(198,633)
S&P Adjusted Free Operating Cash Flow (FOCF)	(5,338)	(24,994)	1,728	(39,566)	(57,896)
S&P Adjusted Debt	562,793	607,045	603,920	726,324	747,717
DCF/Debt	-1.8%	-8.2%	-3.8%	-8.2%	-10.4%
S&P Adjusted Free Operating Cash Flow (FOCF)	(5,338)	(24,994)	1,728	(39,566)	(57,896)
-Dividend Payments	(5,000)	(24,524)	(24,524)	(20,000)	(20,000)
S&P Adjusted Discretionary Cash Flow (DCF)	(10,338)	(49,518)	(22,796)	(59,566)	(77,896)
S&P Adjusted Debt	562,793	607,045	603,920	726,324	747,717
Capital Expenditures	113,190	140,648	175,894	199,200	199,200
Capitalized Interest S&P Adj.	(400)	(600)	(700)	0	(567)
S&P Adjusted Capital Expenditures	112,790	140,048	175,194	199,200	198,633

¹Calculated by Central Hudson in accordance with S&Ps Corporate Methodology published November 19, 2013.

²Corrections to credit metrics in Corrected Exhibit_(SFP-8)

CENTRAL HUDSON GAS & ELECTRIC CORPORATION

CASE 17-E-0459 & CASE 17-G-0460

FINANCE PANEL REBUTTAL

Multi-year Projection of Credit Ratings

Based on Moody's methodology ¹

9.5% 50%

Central Hudson Gas & Electric Corporation Implied Credit Metrics

	9% 48%		9.5% 50%		9.5% 50%		9.5% 50%		9.5% 50%	
	2017		2018		2019		2020		2021	
Net Income	\$49,012,000		\$58,577,000		\$69,467,000		\$75,551,000		\$81,060,000	
Depreciation and Amortization	\$51,890,000		\$56,598,000		\$63,743,000		\$71,019,000		\$76,639,000	
Operating Cash Flow BS Changes-not include WC	(\$3,253,000)		(\$30,723,000)		(\$21,509,000)		\$8,961,000		\$9,539,000	
Deferred Income Taxes	\$31,194,000		\$39,162,000		\$40,644,000		\$30,950,000		\$22,145,000	
CFO-Moody's adjustments	\$2,356,475		\$4,111,075		\$5,387,875		\$1,173,575		\$1,173,575	
Cash Flow From Operation (CFO)-Pre WC	\$131,199,475		\$127,725,075		\$157,732,875		\$187,654,575		\$190,556,575	
Interest Expense	\$30,292,000		\$31,371,000		\$33,030,000		\$36,950,000		\$38,192,000	
Interest Expense- Moody's Adj	\$1,978,061		\$1,978,061		\$1,978,061		\$1,978,061		\$1,978,061	
Adjusted Interest Expense	\$32,270,061		\$33,349,061		\$35,008,061		\$38,928,061		\$40,170,061	
Income Taxes Payable	\$34,749,000		\$39,733,000		\$44,760,000		\$50,740,000		\$54,093,000	
Current Taxes to be paid	\$3,555,000		\$571,000		\$4,116,000		\$19,790,000		\$31,948,000	
Capital Expenditures	\$175,775,000		\$214,713,000		\$235,600,000		\$226,198,000		\$222,890,000	
Dividend Payments (infusion)	\$13,262,000		(\$21,000,000)		(\$6,000,000)		\$12,000,000		\$21,000,000	
Accumulated Deferred Income Taxes	\$370,900,000		\$410,062,000		\$450,706,000		\$481,656,000		\$503,801,000	
Average Debt	\$588,981,000	49.4%	\$661,450,000	50.0%	\$750,950,000	50.4%	\$810,950,000	50.1%	\$863,375,000	49.8%
LT-Moody's adjustments	\$40,903,500		\$28,846,600		\$13,652,300		\$11,510,300		\$5,330,900	
Adjusted-LT Debt	\$629,884,500		\$690,296,600		\$764,602,300		\$822,460,300		\$868,705,900	
Average Equity	\$603,149,500	50.6%	\$660,817,500	50.0%	\$738,339,500	49.6%	\$807,848,500	49.9%	\$869,654,000	50.2%
Equity-Moody's adjustments	(\$3,976,000)		(\$3,976,000)		(\$3,976,000)		(\$3,976,000)		(\$3,976,000)	
Adjusted-Equity	\$599,173,500		\$656,841,500		\$734,363,500		\$803,872,500		\$865,678,000	
Total Average Capitalization	\$1,599,958,000		\$1,757,200,100		\$1,949,671,800		\$2,107,988,800		\$2,238,184,900	
		Ratings Category		Ratings Category		Ratings Category		Ratings Category		Ratings Category
¹ Moody's Credit Metrics										
(CFO pre-WC + Interest)/Interest	5.1x	A2	4.8x	A3	5.5x	A2	5.8x	A1	5.7x	A1
CFO pre-WC / Debt	20.8%	A3	18.5%	Baa1	20.6%	A3	22.8%	A2	21.9%	A2
(CFO pre-WC-Dividends)/Debt	18.7%	A2	21.5%	A1	21.4%	A1	21.4%	A1	19.5%	A2
Debt/Capitalization	39.4%	Aa3	39.3%	Aa3	39.2%	Aa3	39.0%	Aa3	38.8%	Aa3
Implied Rating		A3		A3		A3		A2		A2
Moody's current assigned rating		A2		A2		A2		A2		A2

¹Calculated by Central Hudson in accordance with Moody's Rating Methodology for Electric and Gas Utilities, published December 23, 2013.

Detailed Moody's Credit Metrics Analysis 9.5% & 50%						2017		2018		2019		2020		2021	
Qualitative Factors	Weight ¹	W'ted Score	Weight ¹	W'ted Score	Weight ¹	W'ted Score	Weight ¹	W'ted Score	Weight ¹	W'ted Score	Weight ¹	W'ted Score	Weight ¹	W'ted Score	
Regulatory Framework	25%	1.50	25%	1.50	25%	1.50	25%	1.50	25%	1.50	25%	1.50	25%	1.50	
Legislative and Judicial Underpinnings of the Regulatory Frame work	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	
Regulation	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	
Ability to Recover Cost and Earn Returns	25%		25%		25%		25%		25%		25%		25%		
Timeliness of Recovery of Operating and Capital Costs	12.5%	0.38	12.5%	0.38	12.5%	0.38	12.5%	0.38	12.5%	0.38	12.5%	0.38	12.5%	0.38	
Sufficiency of Rates and Returns	12.5%	1.13	12.5%	1.13	12.5%	1.13	12.5%	1.13	12.5%	1.13	12.5%	1.13	12.5%	1.13	
Diversity	10%	1.20	10%	1.20	10%	1.20	10%	1.20	10%	1.20	10%	1.20	10%	1.20	
Financial Strength															
Cash Flow Interest Coverage	7.5%	0.45	7.5%	0.53	7.5%	0.45	7.5%	0.38	7.5%	0.38	7.5%	0.38	7.5%	0.38	
Cash Flow/Debt	15.0%	1.05	15.0%	1.20	15.0%	1.05	15.0%	0.90	15.0%	0.90	15.0%	0.90	15.0%	0.90	
Retained Cash Flow/Debt	10.0%	0.60	10.0%	0.50	10.0%	0.50	10.0%	0.50	10.0%	0.50	10.0%	0.50	10.0%	0.60	
Debt/Capital	7.5%	0.30	7.5%	0.30	7.5%	0.30	7.5%	0.30	7.5%	0.30	7.5%	0.30	7.5%	0.30	
Total	100%	6.60	100%	6.73	100%	6.50	100%	6.28	100%	6.38	100%	6.28	100%	6.38	
Implied Rating		A3		A3		A3		A2		A2		A2		A2	

¹Moody's respective weightings for Qualitative factors of 25% Regulatory Framework, 10% Diversity and 25% for Ability to Recover Cost and Earn Returns and Financial Strength factors of 7.5% Cash Flow Interest Coverage, 15% Cash Flow/Debt, 10% Retained Cash Flow/Debt and 7.5% Debt/Capital were taken from page 6 of Moody's Rating Methodology for Electric and Gas Utilities, published December 23, 2013.

²Central Hudson's respective ratings of "A" Regulatory Framework, "Ba" Diversity, and "Aa" Ability to Recover Cost and Earn Returns were taken from page 5 of Moody's Credit Opinion on Central Hudson, published July 19, 2017.

Based on Moody's methodology ¹

8.3% 48%

Central Hudson Gas & Electric Corporation Implied Credit Metrics

	9% 48%		8.3% 48%		8.3% 48%		8.3% 48%		8.3% 48%	
	2017		2018		2019		2020		2021	
Net Income	\$49,012,000		\$53,698,924		\$58,679,515		\$63,343,908		\$67,554,427	
Depreciation and Amortization	\$51,890,000		\$56,598,000		\$63,743,000		\$71,019,000		\$76,639,000	
Operating Cash Flow BS Changes-not include WC	(\$3,253,000)		(\$30,723,000)		(\$21,509,000)		\$8,961,000		\$9,539,000	
Deferred Income Taxes	\$31,194,000		\$35,853,182		\$33,693,249		\$22,751,725		\$13,132,454	
CFO-Moody's adjustments	\$2,356,475		\$4,111,075		\$5,387,875		\$1,173,575		\$1,173,575	
Cash Flow From Operation (CFO)-Pre WC	\$131,199,475		\$119,538,181		\$139,994,640		\$167,249,208		\$168,038,456	
Interest Expense	\$30,292,000		\$31,895,054		\$34,062,775		\$38,354,516		\$39,864,113	
Interest Expense- Moody's Adj	\$1,978,061		\$1,978,061		\$1,978,061		\$1,978,061		\$1,978,061	
Adjusted Interest Expense	\$32,270,061		\$33,873,116		\$36,040,836		\$40,332,577		\$41,842,175	
Income Taxes Payable	\$34,749,000		\$36,424,182		\$37,809,249		\$42,541,725		\$45,080,454	
Current Taxes to be paid	\$3,555,000		\$571,000		\$4,116,000		\$19,790,000		\$31,948,000	
Capital Expenditures	\$175,775,000		\$214,713,000		\$235,600,000		\$226,198,000		\$222,890,000	
Dividend Payments (infusion)	\$13,262,000		(\$3,778,956)		(\$14,024,645)		\$11,719,428		\$9,517,627	
Accumulated Deferred Income Taxes	\$370,900,000		\$406,753,182		\$440,446,432		\$463,198,157		\$476,330,611	
Average Debt	\$588,981,000	49.4%	\$672,499,560	50.9%	\$774,430,540	52.0%	\$841,775,220	52.0%	\$901,175,080	52.0%
LT-Moody's adjustments	\$40,903,500		\$28,846,600		\$13,652,300		\$11,510,300		\$5,330,900	
Adjusted-LT Debt	\$629,884,500		\$701,346,160		\$788,082,840		\$853,285,520		\$906,505,980	
Average Equity	\$603,149,500	50.6%	\$649,767,940	49.1%	\$714,858,960	48.0%	\$777,023,280	48.0%	\$831,853,920	48.0%
Equity-Moody's adjustments	(\$3,976,000)		(\$3,976,000)		(\$3,976,000)		(\$3,976,000)		(\$3,976,000)	
Adjusted-Equity	\$599,173,500		\$645,791,940		\$710,882,960		\$773,047,280		\$827,877,920	
Total Average Capitalization	\$1,599,958,000		\$1,753,891,282		\$1,939,412,232		\$2,089,530,957		\$2,210,714,511	
Moody's Credit Metrics		Ratings Category		Ratings Category		Ratings Category		Ratings Category		Ratings Category
(CFO pre-WC + Interest)/Interest	5.1x	A2	4.5x	A3	4.9x	A3	5.1x	A2	5.0x	A2
CFO pre-WC / Debt	20.8%	A3	17.0%	Baa1	17.8%	Baa1	19.6%	A3	18.5%	Baa1
(CFO pre-WC-Dividends)/Debt	18.7%	A2	17.6%	A3	19.5%	A2	18.2%	A2	17.5%	A3
Debt/Capitalization	39.4%	Aa3	40.0%	Aa3	40.6%	A1	40.8%	A1	41.0%	A1
Implied Rating		A3		A3		A3		A3		A3
Moody's current assigned rating		A2		A2		A2		A2		A2

¹Calculated by Central Hudson in accordance with Moody's Rating Methodology for Electric and Gas Utilities, published December 23, 2013.

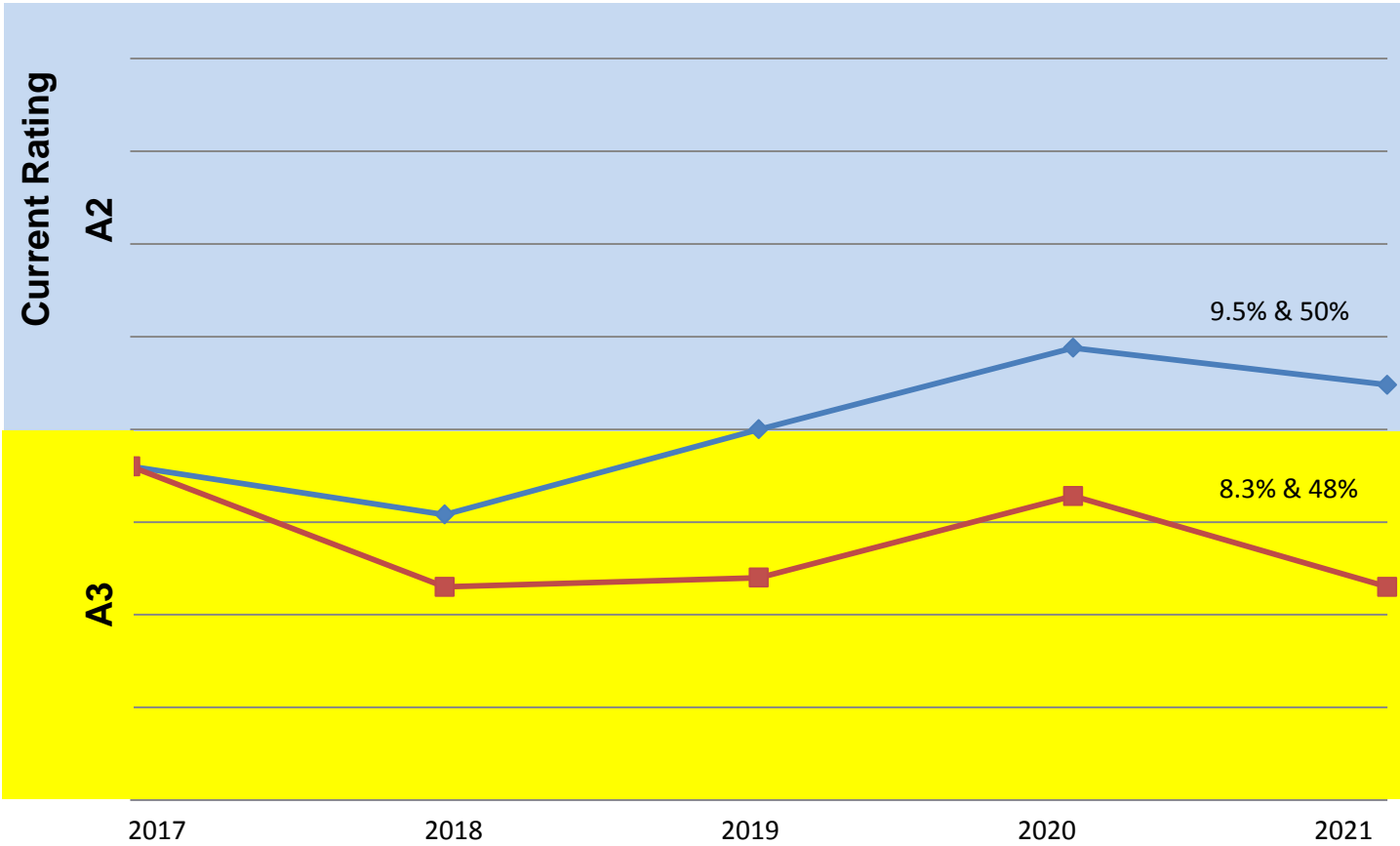
Detailed Moody's Credit Metrics Analysis 8.3% & 48%		2017		2018		2019		2020		2021	
Qualitative Factors	Weight ¹	W'ted Score	Weight ¹	W'ted Score	Weight ¹	W'ted Score	Weight ¹	W'ted Score	Weight ¹	W'ted Score	
Regulatory Framework	25%	1.50	25%	1.50	25%	1.50	25%	1.50	25%	1.50	
Legislative and Judicial Underpinnings of the Regulatory Frame work	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	
Regulation	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	12.5%	0.75	
Ability to Recover Cost and Earn Returns	25%		25%		25%		25%		25%		
Timeliness of Recovery of Operating and Capital Costs	12.5%	0.38	12.5%	0.38	12.5%	0.38	12.5%	0.38	12.5%	0.38	
Sufficiency of Rates and Returns	12.5%	1.13	12.5%	1.13	12.5%	1.13	12.5%	1.13	12.5%	1.13	
Diversity	10%	1.20	10%	1.20	10%	1.20	10%	1.20	10%	1.20	
Financial Strength											
Cash Flow Interest Coverage	7.5%	0.45	7.5%	0.53	7.5%	0.53	7.5%	0.45	7.5%	0.45	
Cash Flow/Debt	15.0%	1.05	15.0%	1.20	15.0%	1.20	15.0%	1.05	15.0%	1.20	
Retained Cash Flow/Debt	10.0%	0.60	10.0%	0.70	10.0%	0.60	10.0%	0.60	10.0%	0.70	
Debt/Capital	7.5%	0.30	7.5%	0.30	7.5%	0.38	7.5%	0.38	7.5%	0.38	
Total	100%	6.60	100%	6.93	100%	6.90	100%	6.68	100%	6.93	
Implied Rating		A3		A3		A3		A3		A3	

¹Moody's respective weightings for Qualitative factors of 25% Regulatory Framework, 10% Diversity and 25% for Ability to Recover Cost and Earn Returns and Financial Strength factors of 7.5% Cash Flow Interest Coverage, 15% Cash Flow/Debt, 10% Retained Cash Flow/Debt and 7.5% Debt/Capital were taken from page 6 of Moody's Rating Methodology for Electric and Gas Utilities, published December 23, 2013.

²Central Hudson's respective ratings of "A" Regulatory Framework, "Ba" Diversity, and "Aa" Ability to Recover Cost and Earn Returns were taken from page 5 of Moody's Credit Opinion on Central Hudson, published July 19, 2017.

Moody's Implied Ratings Forecast

◆ 9.5% 50% ■ 8.3% & 48%



Based on S&P Methodology ¹

9.5% 50%

Central Hudson Gas & Electric Corporation Implied Credit Metrics

	9% 48%		9.5% 50%		9.5% 50%		9.5% 50%		9.5% 50%	
	2017		2018		2019		2020		2021	
Net Income	\$49,021,000		\$58,577,000		\$69,467,000		\$75,551,000		\$81,060,000	
Depreciation and Amortization	\$51,890,000		\$56,598,000		\$63,743,000		\$71,019,000		\$76,639,000	
Income Tax expense										
Income Taxes Payable	\$34,749,000		\$39,733,000		\$44,760,000		\$50,740,000		\$54,093,000	
Current Taxes to be paid	(\$3,555,000)		(\$571,000)		(\$4,116,000)		(\$19,790,000)		(\$31,948,000)	
FFO-S&P adjustments	\$3,377,433		\$5,813,433		(\$1,819,567)		(\$5,068,567)		(\$5,198,567)	
Funds From Operations (FFO)	\$135,482,433		\$160,150,433		\$162,034,433		\$172,451,433		\$174,645,433	
Operating Cash Flow Balance Sheet movements	(\$8,859,000)		(\$38,166,000)		(\$21,509,000)		(\$65,000)		\$6,020,000	
CFO-S&P adjustments	(\$58,233)		\$1,386,767		\$2,611,767		(\$4,986,233)		(\$4,617,233)	
Cash Flow From Operations (CFO)	\$123,187,767		\$117,557,767		\$154,956,767		\$172,468,767		\$181,246,767	
Capital Expenditures	\$175,775,000		\$214,713,000		\$235,600,000		\$226,198,000		\$222,890,000	
Capital -S&P adjustments	(\$566,667)		(\$566,667)		(\$566,667)		(\$566,667)		(\$566,667)	
Free Operating Cash Flow (FOCF)	(\$52,020,567)		(\$96,588,567)		(\$80,076,567)		(\$53,162,567)		(\$41,076,567)	
Dividend Payments (infusion)	\$13,262,000		(\$21,000,000)		(\$6,000,000)		\$12,000,000		\$21,000,000	
Discretionary Cash Flow (DCF)	(\$65,282,567)		(\$75,588,567)		(\$74,076,567)		(\$65,162,567)		(\$62,076,567)	
EBITDA	\$162,385,000		\$182,712,000		\$207,433,000		\$230,693,000		\$246,417,000	
EBITDA-S&P adjustments	\$6,128,733		\$8,729,833		(\$8,793,167)		(\$6,644,167)		\$13,224,833	
Adjusted EBITDA	\$168,513,733		\$191,441,833		\$198,639,833		\$224,048,833		\$259,641,833	
Interest Income	\$3,567,000		\$3,567,000		\$3,567,000		\$3,567,000		\$3,567,000	
Interest Expense	\$30,292,000		\$31,371,000		\$33,030,000		\$36,950,000		\$38,192,000	
Interest Expense-S&P adjustments	\$3,185,226		\$2,572,226		\$2,022,226		\$1,511,226		\$1,068,226	
Adjusted Interest Expense	\$33,477,226		\$33,943,226		\$35,052,226		\$38,461,226		\$39,260,226	
Deferred Income Taxes	\$31,194,000		\$39,162,000		\$40,644,000		\$30,950,000		\$22,145,000	
Accumulated Deferred Income Taxes	\$370,900,000		\$410,062,000		\$450,706,000		\$481,656,000		\$503,801,000	
Average Debt	\$588,981,000	49.4%	\$661,450,000	50.0%	\$750,950,000	50.4%	\$810,950,000	50.1%	\$863,375,000	49.8%
LT-S&P adjustments	\$38,963,194		\$22,856,194		\$21,393,194		\$15,615,194		\$7,555,194	
Adjusted-LT Debt	\$627,944,194		\$684,306,194		\$772,343,194		\$826,565,194		\$870,930,194	
Average Equity	\$603,149,500	50.6%	\$660,817,500	50.0%	\$738,339,500	49.6%	\$807,848,500	49.9%	\$869,654,000	50.2%
Total Average Capitalization	\$1,601,993,694	\$1,231,093,694	\$1,755,185,694	\$1,345,123,694	\$1,961,388,694	\$1,510,682,694	\$2,116,069,694	\$1,634,413,694	\$2,244,385,194	\$1,740,584,194
S&P Credit Metrics		Ratings Category		Ratings Category		Ratings Category		Ratings Category		Ratings Category
Funds from Operation/Debt	21.6%	Significant	23.4%	Intermediate	21.0%	Significant	20.9%	Significant	20.1%	Significant
Debt/EBITDA	3.7x	Significant	3.6x	Significant	3.9x	Significant	3.7x	Significant	3.4x	Intermediate
(FFO+Interest)/Interest	5.0x	Intermediate	5.7x	Intermediate	5.6x	Intermediate	5.5x	Intermediate	5.4x	Intermediate
EBITDA/Interest	5.0x	Intermediate	5.6x	Intermediate	5.7x	Intermediate	5.8x	Intermediate	6.6x	Intermediate
CFO/Debt	19.6%	Intermediate	17.2%	Significant	20.1%	Intermediate	20.9%	Intermediate	20.8%	Intermediate
FOCF/Debt	-8.3%	Highly leveraged	-14.1%	Highly leveraged	-10.4%	Highly leveraged	-6.4%	Highly leveraged	-4.7%	Highly leveraged
DCF/Debt	-10.4%	Aggressive	-11.0%	Highly leveraged	-9.6%	Aggressive	-7.9%	Aggressive	-7.1%	Aggressive
Business Risk Profile		Excellent		Excellent		Excellent		Excellent		Excellent
Implied Rating		A-		A-/BBB+		A-		A-		A-

¹Calculated by Central Hudson in accordance with S&Ps Corporate Methodology, published November 19, 2013.

Standard & Poor's Credit Metrics										
Funds from Operation/Debt	A-	7	A+/A	5.5	A-	7	A-	7	A-	7
Debt/EBITDA	A-	7	A-	7	A-	7	A-	7	A+/A	5.5
(FFO+Interest)/Interest	A+/A	5.5	A+/A	5.5	A+/A	5.5	A+/A	5.5	A+/A	5.5
EBITDA/Interest	A+/A	5.5	A+/A	5.5	A+/A	5.5	A+/A	5.5	A+/A	5.5
CFO/Debt	A+/A	5.5	A-	7	A+/A	5.5	A+/A	5.5	A+/A	5.5
FOCF/Debt	BBB-/BB+	10.5	BBB-/BB+	10.5	BBB-/BB+	10.5	BBB-/BB+	10.5	BBB-/BB+	10.5
DCF/Debt	BBB	9	BBB-/BB+	10.5	BBB	9	BBB	9	BBB	9
Business Risk Profile	A-	7.14	A-/BBB+	7.36	A-	7.14	A-	7.14	A-	6.93
S&P current assigned rating	A-		A-		A-		A-		A-	

Based on S&P Methodology ¹

8.3% 48%

Central Hudson Gas & Electric Corporation Implied Credit Metrics

	9% 48%		8.3% 48%		8.3% 48%		8.3% 48%		8.3% 48%	
	2017		2018		2019		2020		2021	
Net Income	\$49,021,000		\$53,698,924		\$58,679,515		\$63,343,908		\$67,554,427	
Depreciation and Amortization	\$51,890,000		\$56,598,000		\$63,743,000		\$71,019,000		\$76,639,000	
Income Tax expense										
Income Taxes Payable	\$34,749,000		\$36,424,182		\$37,809,249		\$42,541,725		\$45,080,454	
Current Taxes to be paid	(\$3,555,000)		(\$571,000)		(\$4,116,000)		(\$19,790,000)		(\$31,948,000)	
FFO-S&P adjustments	\$3,377,433		\$5,813,433		(\$1,819,567)		(\$5,068,567)		(\$5,198,567)	
Funds From Operations (FFO)	\$135,482,433		\$151,963,539		\$144,296,198		\$152,046,066		\$152,127,315	
Operating Cash Flow Balance Sheet movements	(\$8,859,000)		(\$38,166,000)		(\$21,509,000)		(\$65,000)		\$6,020,000	
CFO-S&P adjustments	(\$58,233)		\$1,386,767		\$2,611,767		(\$4,986,233)		(\$4,617,233)	
Cash Flow From Operations (CFO)	\$123,187,767		\$109,370,873		\$137,218,531		\$152,063,399		\$158,728,648	
Capital Expenditures	\$175,775,000		\$214,713,000		\$235,600,000		\$226,198,000		\$222,890,000	
Capital -S&P adjustments	(\$566,667)		(\$566,667)		(\$567,000)		(\$566,667)		(\$566,667)	
Free Operating Cash Flow (FOCF)	(\$52,020,567)		(\$104,775,461)		(\$97,814,469)		(\$73,567,934)		(\$63,594,685)	
Dividend Payments (infusion)	\$13,262,000		(\$3,778,956)		(\$14,024,645)		\$11,719,428		\$9,517,627	
Discretionary Cash Flow (DCF)	(\$65,282,567)		(\$100,996,504)		(\$83,789,824)		(\$85,287,362)		(\$73,112,312)	
EBITDA	\$162,385,000		\$175,049,160		\$190,727,539		\$211,692,148		\$225,570,994	
EBITDA-S&P adjustments	\$6,128,733		\$8,729,833		(\$8,793,167)		(\$6,644,167)		\$13,224,833	
Adjusted EBITDA	\$168,513,733		\$183,778,994		\$181,934,373		\$205,047,982		\$238,795,828	
Interest Income	\$3,567,000		\$3,567,000		\$3,567,000		\$3,567,000		\$3,567,000	
Interest Expense	\$30,292,000		\$31,895,054		\$34,062,775		\$38,354,516		\$39,864,113	
Interest Expense-S&P adjustments	\$3,185,226		\$2,572,226		\$2,022,226		\$1,511,226		\$1,068,226	
Adjusted Interest Expense	\$33,477,226		\$34,467,281		\$36,085,001		\$39,865,742		\$40,932,339	
Deferred Income Taxes	\$31,194,000		\$35,853,182		\$33,693,249		\$22,751,725		\$13,132,454	
Accumulated Deferred Income Taxes	\$370,900,000		\$406,753,182		\$440,446,432		\$463,198,157		\$476,330,611	
Average Debt	\$588,981,000	49.4%	\$672,499,560	50.9%	\$774,430,540	52.0%	\$841,775,220	52.0%	\$901,175,080	52.0%
LT-S&P adjustments	\$38,963,194		\$22,856,194		\$21,393,194		\$15,615,194		\$7,555,194	
Adjusted-LT Debt	\$627,944,194		\$695,355,754		\$795,823,734		\$857,390,414		\$908,730,274	
Average Equity	\$603,149,500	50.6%	\$649,767,940	49.1%	\$714,858,960	48.0%	\$777,023,280	48.0%	\$831,853,920	48.0%
Total Average Capitalization	\$1,601,993,694	\$1,231,093,694	\$1,751,876,876	\$1,345,123,694	\$1,951,129,125	\$1,510,682,694	\$2,097,611,850	\$1,634,413,694	\$2,216,914,805	\$1,740,584,194
S&P Credit Metrics		Ratings Category		Ratings Category		Ratings Category		Ratings Category		Ratings Category
Funds from Operation/Debt	21.6%	Significant	21.9%	Significant	18.1%	Significant	17.7%	Significant	16.7%	Significant
Debt/EBITDA	3.7x	Significant	3.8x	Significant	4.4x	Significant	4.2x	Significant	3.8x	Significant
(FFO+Interest)/Interest	5.0x	Intermediate	5.4x	Intermediate	5.0x	Significant	4.8x	Significant	4.7x	Significant
EBITDA/Interest	5.0x	Intermediate	5.3x	Intermediate	5.0x	Intermediate	5.1x	Intermediate	5.8x	Intermediate
CFO/Debt	19.6%	Intermediate	15.7%	Significant	17.2%	Significant	17.7%	Significant	17.5%	Significant
FOCF/Debt	-8.3%	Highly leveraged	-15.1%	Highly leveraged	-12.3%	Highly leveraged	-8.6%	Highly leveraged	-7.0%	Highly leveraged
DCF/Debt	-10.4%	Aggressive	-14.5%	Highly leveraged	-10.5%	Aggressive	-9.9%	Aggressive	-8.0%	Aggressive
Business Risk Profile		Excellent		Excellent		Excellent		Excellent		Excellent
Implied Rating		A-		A-/BBB+		A-/BBB+		A-/BBB+		A-/BBB+

¹Calculated by Central Hudson in accordance with S&Ps Corporate Methodology, published November 19, 2013.

Standard & Poor's Credit Metrics										
Funds from Operation/Debt	A-	7	A-	7	A-	7	A-	7	A-	7
Debt/EBITDA	A-	7	A-	7	A-	7	A-	7	A-	7
(FFO+Interest)/Interest	A+/A	5.5	A+/A	5.5	A-	7	A-	7	A-	7
EBITDA/Interest	A+/A	5.5	A+/A	5.5	A+/A	5.5	A+/A	5.5	A+/A	5.5
CFO/Debt	A+/A	5.5	A-	7	A-	7	A-	7	A-	7
FOCF/Debt	BBB-/BB+	10.5	BBB-/BB+	10.5	BBB-/BB+	10.5	BBB-/BB+	10.5	BBB-/BB+	10.5
DCF/Debt	BBB	9	BBB-/BB+	10.5	BBB	9	BBB	9	BBB	9
Business Risk Profile	A-	7.14	A-/BBB+	7.57	A-/BBB+	7.57	A-/BBB+	7.57	A-/BBB+	7.57
S&P current assigned rating	A-		A-		A-		A-		A-	

S&P Implied Ratings Forecast

◆ 9.5% 50% ■ 8.3% & 48%

