

Ashraful Alam
21 S. Fruit St., Suite 10, Room 241
Concord, N.H. 03301-2429
Work: 603-271-3670; Email: Ashraful.Alam@energy.nh.gov

SUMMARY

- **Education:** MA in Analytical Economics with specialization in Data Analytics, Macroeconomic Consulting, Behavioral Analysis, Policy Analysis and Strategic Planning.
- **Highlights of relevant professional experience:** Experience working as an Assistant Director at Bangladesh Rural Electrification Board; specialized in utility regulation, policy analysis and operational management. I managed regulatory activities, analyzed regulatory data, and derived actionable insights for performance improvement of the rural electric utilities.
 - Extensive experience in leveraging regulatory data to assess the financial condition and operational performance of the regulated rural electric utilities
 - Extensive experience in leading and supervising teams for evaluating the performance of the rate classes under given rate structure and providing recommendations for improvement
 - Experience in reviewing the regulatory activities in the rural utilities by performing collaborative monitoring, compliance audit, financial investigation and recommending necessary policy updates to the senior management
 - Significant experience in establishing Energy Regulatory Commission guidelines and providing detailed reports to the Ministry of Energy and Mineral Resources with actionable recommendations on program performance, operational management and policy issues
 - Experience in analyzing market conditions and industry trends, identifying existing strategy related issues, recommending appropriate rate structures and designing adaptive policies for process improvement
 - Extensive experience in establishing tariff compliance in the regulated rural utilities by regular collective supervision and designing strategic cost optimization plans for revenue enhancements
 - Demonstrated ability and extensive experience in establishing and maintaining continuous contact with external (e.g., other Government wings, international development partners, utility representatives, and the public) and internal officials/stakeholders (e.g., other units within and across the Departments/rural utilities)
- **Knowledge**
 - Knowledge of the mission, commitment, structure, and operations of the New Hampshire Department of Energy
 - Knowledge of the general jurisdiction and statutory and regulatory framework
 - Knowledge and experience in analyzing utility reports, analyzing market conditions and industry trends, resolving substantive industry issues related to utility service and regulatory policy
 - Extensive experience in preparing reports on performance of rate classes under given rate structure, developing performance improvement strategies, evaluating utility reports and tariff compliance

- **Linguistic profile:** Excellent oral and written communication skills in English
 - **Personal Traits:** Great management and analytical skills; self-motivated problem solver and able to adopt innovative approaches for efficient results; committed to continuous learning, and upholding integrity and respect; sound judgment, values and ethics
 - **Professional Goal:** Utilizing my Economics background with analytical skills and professional experience to effectively contribute towards maintaining stable regulatory practices, delivering strategic insights on energy-related proceedings and designing policies for a sustainable and affordable energy economy for the people of New Hampshire
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EDUCATION

- MA, Analytical Economics, University of New Hampshire, Durham, N.H., 2023 (duration 2 years)
 - Specialization in Data Analytics, Econometrics, Macroeconomic Analysis & Consulting, Financial Modelling and Behavioral Analysis
 - MSS, Economics, University of Dhaka, Dhaka, Bangladesh, 2015 (duration 1 year)
 - BSS, Economics, University of Dhaka, Dhaka, Bangladesh, 2014 (duration 4 years)
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EMPLOYMENT OVERVIEW

Utility Analyst

Gas Division; New Hampshire Department of Energy (NHDOE)

September 2023 – to-date

- Work on contents and cases associated with various gas dockets before the Department
- Represent Departmental positions on gas dockets before the NH Public Utilities Commission (NHPUC)
- Coordinate communications and work plan among the Department and the regulated utility companies in New Hampshire
- Review and analyze the gas related reports submitted by the regulated utility companies, consolidate the reports and utilize relevant information for regulatory analysis
- Develop analytical frameworks and formats for efficient analysis of company filings
- Assist Departmental Senior Management in performing regulatory and administrative functions

Assistant Director

Department of Financial Monitoring, Bangladesh Rural Electrification Board (BREB)

February 2019 – August 2021

- Supervised regulatory activities, analyzed data, and devised actionable activities driven by insights from data analytics
- Wrote reports on performance of rate classes under given rate structure, identification of performance improvement and performed the relevant policy analysis

- Analyzed market conditions and industry trends and recommended applicable rate structures and necessary service changes
- Administered Energy Regulatory Commission guidelines, evaluated utility reports and tariffs for compliance with rules, and settled industry issues
- Fostered collaborative working relationships with development partners, central and local officials, utility representatives and organized cross functional workshops with project stakeholders
- Explored consumer mixes and effectively established strategic cost optimization plans that boosted revenues
- Assessed the sectors eligible for subsidized electricity, accomplished ERP implementation and streamlined the Annual Performance Agreement plan
- Created research reports on resource and income planning approach to prioritize investment decisions

Officer

Southeast Bank Limited

September 2016 – January 2017

- Executed operations in General Banking, Credit and Foreign Exchange departments
- Managed Letter of Credit accounts and coordinated processes like advising and issuance
- Monitored and networked with potential and active clients for revenue enhancement opportunities
- Standardized customer experience, retained existing clients, and secured new ones

Attachment 2 : DOE Analytical Framework

Theoretical Framework:

$$RPC_{TY} = \frac{R_{TY}}{n_{TY}} = \frac{R_0}{n_0}$$

or, $RPC_0 = \frac{R_0}{n_0}$; where 'TY' is represented by the subscript '0'

Where: TY = Test Year,
 $R_{TY} = R_0$ = Revenue in Test Year
 $n_{TY} = n_0$ = Number of customers in Test Year
 $RPC_{TY} = RPC_0$ = Revenue per customer in Test Year

Now,

$$R_{All} = n_{Act} RPC_0 \dots\dots\dots (1)$$

Where: R_{All} = Allowed/Authorized Revenue
 n_{Act} = Number of customers in Decoupling Year1
 RPC_0 = Revenue per customer in Test Year

Note:

$$R_0 = n_0 p_0 q_0$$

Where:
 R_0 = Revenue in Test Year
 n_0 = Number of customers in Test Year
 p_0 = Price per therm or the Gas Rates in Test Year
 q_0 = Average therm consumption in Test Year

Note also that,

$$Q_0 = n_0 q_0$$

Where: Q_0 = Total therm consumption in Test Year
 n_0 = Number of customers in Test Year
 q_0 = Average therm consumption in Test Year

Now,

$$R_0 = p_0 Q_0 = p_0 (n_0 q_0)$$

$$\frac{R_0}{n_0} = \frac{p_0 Q_0}{n_0} = \frac{p_0 (n_0 q_0)}{n_0}$$

$$RPC_0 = p_0 q_0 \dots\dots\dots (2)$$

That is, RPC in the Test Year is equal to the calculated rate from the Test Year (p_0 updated through DG 21-104) multiplied by the average therm consumption.

Applying equation (2) into equation (1), we get:

$$R_{All} = n_{Act} RPC_0$$

$$R_{All} = n_{Act} p_0 q_0 \dots\dots\dots (3)$$

Similarly, actual revenue in the Decoupling Year (DY1) is:

$$R_{Act} = n_{Act} p_{Act} q_{Act}$$

$$R_{Act} = n_1 p_1 q_1 \dots\dots\dots (4)$$

; where 'Act', for actual, is represented by the subscript '1'

Here:

- R_{Act} = Revenue in Decoupling Year
- $n_{Act} = n_1$ = Number of customers in Decoupling Year
- $p_{Act} = p_1$ = Price per therm or Gas Rate in Decoupling Year
- $q_{Act} = q_1$ = Average therm consumption in Decoupling Year

Note: Decoupling Year runs from August 2022 through July 2023

Now, dividing equation (3) by equation (4) gives:

$$\frac{R_{All}}{R_{Act}} = \frac{n_{Act} p_0 q_0}{n_1 p_1 q_1}$$

$$\frac{R_{All}}{R_{Act}} = \frac{n_1 p_0 q_0}{n_1 p_1 q_1}$$

; where ' n_{Act} ' is the same as ' n_1 '

Therefore:

$$\left(\frac{R_{All}}{R_{Act}}\right) = \left(\frac{p_0}{p_1}\right) \left(\frac{q_0}{q_1}\right) \dots\dots\dots (5)$$

Empirical Framework:

Revenue functions: $R_{All} = n_1 p_0 q_0$ (1)

$R_{Act} = n_1 p_1 q_1$ (2)

Note: here, q = Average therm consumption

n = Number of customers

Q = Total therm consumption

So, $q = \frac{Q}{n}$

Multiplying both sides with price per therm or the rate ' p ' gives:

$pq = p \frac{Q}{n} = \frac{R}{n} = Average\ Revnue$; where *Total Revenue, $R = p Q$*

Subtracting equation (2) from equation (1) gives:

$R_{All} - R_{Act} = n_1 p_0 q_0 - n_1 p_1 q_1$

$R_{All} - R_{Act} = n_1 (p_0 q_0 - p_1 q_1)$ (3)

Model 1: $R_{All} - R_{Act} = n_1 (p_0 q_0 - p_1 q_1)$

Model 2: $\ln (R_{All} - R_{Act}) = \ln (n_1) + \ln (p_0 q_0 - p_1 q_1)$

Demand function: $Q = a - b * p$ (4)

Using Log-transformed values in demand function gives:

Model 3: $\ln Q = \alpha + \beta \ln p + e$

This yields: $\frac{1}{Q} \frac{\partial Q}{\partial p} = 0 + \beta \frac{1}{p} \frac{\partial p}{\partial p} + 0$

Therefore, price elasticity:

$\epsilon_{Q,p} = \frac{p}{Q} \frac{\partial Q}{\partial p} = \beta$

Attachment 3: Tables

Decoupling Year 5

Model 1.1: Level Model (Reg 1_all) - Regress (R_all - R_act) on n_act

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
n_act	5.894737	0.460430571	12.80266	3.993E-24	4.983039	6.806436	4.983039	6.806436

Model 1.2: Level Model (Reg 1_RES) - Regress (R_all - R_act) on n_act

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
n_act	5.873419	0.815880251	7.198874	2.12E-08	4.217094	7.529744	4.217094	7.529744

Model 1.3: Level Model (Reg 1_C&I) - Regress (R_all - R_act) on n_act

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
n_act	7.367822	1.372495389	5.368194	7.09E-07	4.637984	10.09766	4.637984	10.09766

Model 2.1: Ln Model (Reg 2_all) - Regress Ln(R_all - R_act)_adj on Ln(n_act)

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ln (n_act)	1.390535	0.052186	26.6458	2.7E-49	1.287094	1.493977	1.287094	1.493977

Model 2.2: Ln Model (Reg 2_RES) - Regress Ln(R_all - R_act)_adj on Ln(n_act)

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ln (n_act)	1.085435	0.070658	15.36191	6.45E-14	0.939605	1.231265	0.939605	1.231265

Model 2.3: Ln Model (Reg 2_C&I) - Regress Ln(R_all - R_act)_adj on Ln(n_act)

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Ln (n_act)	1.618528	0.060404	26.79515	1.28E-42	1.498387	1.738669	1.498387	1.738669

Model 3.1: Ln Model (Reg 3_all) - Regress Ln(Q_act) on Ln(p_act)

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	13.56646	0.140258	96.72515	5.5E-106	13.28841	13.8445	13.28841	13.8445
Ln(p_act)	-0.36989	0.273996	-1.34999	0.179868	-0.91306	0.173273	-0.91306	0.173273

Model 3.2: Ln Model (Reg 3_RES) - Regress Ln(Q_act) on Ln(p_act)

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	12.87329	0.830197	15.50631	1.14E-13	11.1559	14.59068	11.1559	14.59068
Ln(p_act)	0.029891	1.422618	0.021011	0.983418	-2.91302	2.9728	-2.91302	2.9728

Model 3.3: Ln Model (Reg 3_C&I) - Regress Ln(Q_act) on Ln(p_act)

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	13.68545	0.092297	148.2759	2.1E-101	13.50184	13.86906	13.50184	13.86906
Ln(p_act)	-0.20168	0.188925	-1.0675	0.288879	-0.57751	0.174154	-0.57751	0.174154

Table: 1.1

Customer Count (n - Equivalent Bills)				
	Test Year	DY3	DY4	DY5
Residential	82,909	85,151	85,674	86,214
C&I	12,605	12,913	12,993	13,079
Total	95,514	98,064	98,667	99,293

Table: 1.2

Customer Count : Y-o-Y Growth					
	DY3	DY4	DY5	Avg Growth Rate (DY3 to DY5)	Cumulative Growth Rate (TY to DY5)
Residential	2.7%	3.3%	4.0%	3.3%	1.0%
C&I	2.4%	3.1%	3.8%	3.1%	0.9%
Total	2.7%	3.3%	4.0%	3.3%	1.0%

Table: 1.3

n0: Customer Count (Equivalent Bills) : Test Year 2019

Calendar Month - Bills	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	12 Month Average	% dist by rate classes
	R-1	3,556	3,208	3,554	3,435	3,550	3,433	3,532	3,541	3,426	3,536	3,429	3,548	3,479
R-3	74,568	67,504	74,858	72,371	74,609	72,049	74,381	74,383	72,235	75,025	72,971	76,009	73,414	76.9%
R-4	6,206	5,597	6,169	5,875	5,955	5,680	5,709	5,570	5,309	5,662	5,879	5,874	5,791	6.1%
R-5	37	43	47	53	55	63	66	60	67	67	70	70	58	0.1%
R-6	86	94	100	125	146	180	191	178	202	212	233	237	165	0.2%
R-7	1	1	1	2	3	3	3	3	3	3	3	3	2	0.0%
Total Residential	84,454	76,448	84,729	81,860	84,318	81,407	83,883	83,735	81,244	84,505	82,585	85,741	82,909	86.8%
G-41	9,722	8,810	9,759	9,395	9,534	9,045	9,208	9,146	8,865	9,410	9,417	9,843	9,346	9.8%
G-42	1,438	1,300	1,439	1,383	1,423	1,371	1,437	1,451	1,402	1,461	1,428	1,477	1,418	1.5%
G-43	60	53	58	54	55	52	53	49	48	50	48	53	53	0.1%
G-44	1	2	2	2	2	2	2	3	3	4	4	4	3	0.0%
G-45	4	4	4	4	4	4	4	6	7	7	7	7	5	0.0%
G-46	0	1	2	3	4	5	6	7	8	9	10	11	6	0.0%
G-51	1,339	1,208	1,338	1,291	1,327	1,284	1,342	1,354	1,303	1,350	1,308	1,347	1,316	1.4%
G-52	390	352	392	381	397	385	401	406	392	409	401	417	394	0.4%
G-53	37	34	35	34	36	35	34	33	33	34	33	34	34	0.0%
G-54	28	26	29	27	28	27	27	26	25	26	25	27	27	0.0%
G-55	3	3	3	3	3	3	3	3	3	3	3	3	3	0.0%
G-56	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-58	1	1	1	1	1	1	1	1	1	1	1	1	1	0.0%
Total C&I	13,024	11,794	13,063	12,579	12,815	12,214	12,519	12,485	12,091	12,764	12,685	13,223	12,605	13.2%
Total	97,478	88,242	97,791	94,439	97,133	93,621	96,402	96,220	93,334	97,269	95,270	98,964	95,514	100.0%
% dist by calendar months	102.1%	92.4%	102.4%	98.9%	101.7%	98.0%	100.9%	100.7%	97.7%	101.8%	99.7%	103.6%	100.0%	

Table: 1.4

n1: Customer Count (Equivalent Bills) : Decoupling Year 5 (DY5 - Sept 2022 to Aug 2023)

Calendar Month - Equivalent Bills	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-22	Oct-22	Nov-22	Dec-22	12 Month Average	% dist by rate classes
	R-1	3,488	3,187	3,390	3,404	3,391	3,251	3,474	3,395	3,360	3,408	3,381	3,484	3,385
R-3	84,414	77,067	83,646	84,175	84,449	80,450	86,473	84,888	79,423	83,050	80,782	83,435	82,688	83.3%
R-4	0	0	0	0	0	0	0	0	1,503	0	0	0	125	0.1%
R-5	0	0	0	0	0	0	0	0	42	0	0	0	4	0.0%
R-6	0	0	0	0	0	0	0	0	150	0	0	0	12	0.0%
R-7	0	0	0	0	0	0	0	0	4	0	0	0	0	0.0%
Total Residential	87,902	80,254	87,036	87,579	87,840	83,701	89,947	88,283	84,481	86,457	84,164	86,919	86,214	86.8%
G-41	10,040	9,226	10,013	10,037	9,981	9,382	10,036	9,845	9,150	9,707	9,586	9,972	9,748	9.8%
G-42	1,491	1,376	1,515	1,523	1,530	1,454	1,557	1,530	1,452	1,504	1,463	1,499	1,491	1.5%
G-43	65	62	66	66	66	65	67	64	63	63	63	65	65	0.1%
G-44	0	0	0	0	0	0	0	0	1	0	0	0	0	0.0%
G-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-46														0.0%
G-51	1,307	1,205	1,308	1,316	1,317	1,253	1,347	1,321	1,275	1,311	1,273	1,304	1,295	1.3%
G-52	425	393	428	429	430	409	442	435	406	421	409	425	421	0.4%
G-53	32	33	34	33	32	32	35	34	30	33	33	33	33	0.0%
G-54	26	26	25	27	28	27	27	27	26	26	25	27	26	0.0%
G-55	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-56	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-57														0.0%
G-58	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
INAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Total C&I	13,388	12,321	13,388	13,432	13,385	12,622	13,510	13,257	12,404	13,064	12,852	13,325	13,079	13.2%
Total	101,290	92,576	100,423	101,010	101,225	96,323	103,458	101,540	96,885	99,522	97,016	100,244	99,293	100.0%
% dist by calendar months	102.0%	93.2%	101.1%	101.7%	101.9%	97.0%	104.2%	102.3%	97.6%	100.2%	97.7%	101.0%	100.0%	

Table: 1.5

Customer Count (Equivalent Bills) : % Change relative to TY2019 ((n1 - n0) / n0)

Calendar Month - Therms	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-22	Oct-22	Nov-22	Dec-22	12 Month Average
R-1	-1.9%	-0.6%	-4.6%	-0.9%	-4.5%	-5.3%	-1.6%	-4.1%	-1.9%	-3.6%	-1.4%	-1.8%	-2.7%
R-3	13.2%	14.2%	11.7%	16.3%	13.2%	11.7%	16.3%	14.1%	10.0%	10.7%	10.7%	9.8%	12.6%
R-4	-	-	-	-	-	-	-	-	-71.7%	-	-	-	-97.8%
R-5	-	-	-	-	-	-	-	-	-37.0%	-	-	-	-93.9%
R-6	-	-	-	-	-	-	-	-	-25.9%	-	-	-	-92.4%
R-7	-	-	-	-	-	-	-	-	16.7%	-	-	-	-85.4%
Total Residential	4.1%	5.0%	2.7%	7.0%	4.2%	2.8%	7.2%	5.4%	4.0%	2.3%	1.9%	1.4%	4.0%
G-41	3.3%	4.7%	2.6%	6.8%	4.7%	3.7%	9.0%	7.6%	3.2%	3.2%	1.8%	1.3%	4.3%
G-42	3.7%	5.9%	5.2%	10.1%	7.6%	6.1%	8.4%	5.4%	3.6%	2.9%	2.5%	1.5%	5.2%
G-43	8.5%	17.7%	13.0%	22.5%	20.2%	24.3%	26.0%	30.8%	31.1%	26.7%	31.4%	22.7%	21.9%
G-44	-	-	-	-	-	-	-	-	-	-	-	-	-
G-45	-	-	-	-	-	-	-	-	-	-	-	-	-
G-46													
G-51	-2.4%	-0.2%	-2.2%	1.9%	-0.8%	-2.4%	0.4%	-2.4%	-2.2%	-2.9%	-2.7%	-3.2%	-1.6%
G-52	9.1%	11.7%	9.1%	12.7%	8.3%	6.1%	10.1%	7.1%	3.7%	2.8%	2.1%	1.9%	6.8%
G-53	-13.0%	-4.3%	-2.1%	-1.9%	-10.3%	-8.8%	1.6%	4.1%	-8.6%	-3.1%	0.1%	-3.7%	-3.3%
G-54	-6.6%	-0.4%	-13.6%	0.6%	0.3%	-0.1%	0.7%	4.2%	4.5%	0.2%	0.1%	0.1%	-1.9%
G-55	-	-	-	-	-	-	-	-	-	-	-	-	-
G-56													
G-57													
G-58	-	-	-	-	-	-	-	-	-	-	-	-	-
INAT													
Total C&I	2.8%	4.5%	2.5%	6.8%	4.4%	3.3%	7.9%	6.2%	2.6%	2.4%	1.3%	0.8%	3.8%
Total	3.9%	4.9%	2.7%	7.0%	4.2%	2.9%	7.3%	5.5%	3.8%	2.3%	1.8%	1.3%	4.0%

Table: 2.1

Sales (Therm)				
	Test Year	DY3	DY4	DY5
Residential	64,132,575	59,485,775	59,088,893	54,517,556
C&I	113,906,893	106,307,619	105,709,196	99,523,316
Total	178,039,468	165,793,394	164,798,089	154,040,872

Table: 2.2

Sales : Y-o-Y Change					
	DY3	DY4	DY5	Avg Grw Rate (DY3 to DY5)	Cumulative Growth Rate (TY to DY5)
Residential	-7.2%	-7.9%	-15.0%	-10.0%	-4.0%
C&I	-6.7%	-7.2%	-12.6%	-8.8%	-3.3%
Total	-6.9%	-7.4%	-13.5%	-9.3%	-3.6%

Table: 2.3

Q0: Consumption (Therms) : Test Year 2019

Calendar Month - Therms	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	12 Month Total	% dist by rate classes
	R-1	98,270	82,477	81,173	62,569	51,406	39,204	32,708	33,562	36,196	47,312	74,356	90,773	730,007
R-3	11,047,615	9,168,849	7,837,906	4,355,776	2,468,802	1,285,524	995,157	1,013,378	1,276,765	2,884,173	7,047,568	9,245,832	58,627,344	32.9%
R-4	885,912	727,579	628,272	349,015	195,398	104,607	78,949	78,217	93,638	212,528	547,644	690,935	4,592,696	2.6%
R-5	2,418	2,166	1,977	1,255	802	477	411	401	537	1,006	1,789	2,314	15,553	0.0%
R-6	24,771	22,729	20,328	12,107	7,073	3,298	2,618	2,697	3,953	10,649	23,344	31,643	165,208	0.1%
R-7	236	219	205	132	74	29	23	21	31	116	286	395	1,767	0.0%
Total Residential	12,059,223	10,004,020	8,569,861	4,780,853	2,723,555	1,433,138	1,109,867	1,128,276	1,411,120	3,155,784	7,694,988	10,061,892	64,132,575	36.0%
G-41	5,171,612	4,279,458	3,531,133	1,765,781	864,883	351,762	235,341	241,313	352,412	1,015,786	3,004,170	4,153,306	24,966,957	14.0%
G-42	6,530,418	5,475,772	4,725,518	2,672,542	1,482,039	693,556	501,810	534,815	768,009	1,758,714	4,271,746	5,595,225	35,010,164	19.7%
G-43	1,905,835	1,561,041	1,434,525	899,966	603,914	340,002	280,487	298,376	341,006	635,398	1,308,963	1,674,106	11,283,618	6.3%
G-44	835	771	571	277	153	72	63	78	170	1,122	2,450	3,539	10,101	0.0%
G-45	17,066	15,009	11,928	6,338	5,143	985	423	1,270	5,105	13,408	24,517	32,298	133,489	0.1%
G-46	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-51	513,365	436,895	422,665	331,851	298,122	249,134	231,853	258,476	254,156	285,859	390,874	456,217	4,129,466	2.3%
G-52	1,167,695	988,029	975,249	771,679	657,758	552,333	541,766	581,009	589,257	702,220	958,011	1,079,925	9,564,929	5.4%
G-53	1,337,134	1,065,891	1,038,207	826,277	776,434	663,509	663,090	697,644	647,913	782,805	956,209	1,067,796	10,522,907	5.9%
G-54	1,327,434	1,206,315	1,185,882	1,309,095	1,639,560	1,668,852	1,770,028	1,766,454	1,625,766	1,665,368	1,544,839	1,293,390	18,002,982	10.1%
G-55	621	577	504	263	172	58	12	57	59	157	421	625	3,525	0.0%
G-56	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-58	19,016	33,980	31,595	29,380	21,467	17,183	16,968	16,982	20,073	22,561	23,451	26,099	278,754	0.2%
Total C&I	17,991,031	15,063,736	13,357,776	8,613,449	6,349,644	4,537,445	4,241,840	4,396,473	4,603,926	6,883,398	12,485,650	15,382,524	113,906,893	64.0%
Total	30,050,254	25,067,756	21,927,637	13,394,303	9,073,199	5,970,583	5,351,707	5,524,748	6,015,045	10,039,183	20,180,637	25,444,416	178,039,468	100.0%
% dist by calendar months	16.9%	14.1%	12.3%	7.5%	5.1%	3.4%	3.0%	3.1%	3.4%	5.6%	11.3%	14.3%	100.0%	

Table: 2.4

Q1: Consumption (Therms) : Decoupling Year 5 (DYS - Sept 2022 to Aug 2023)

Calendar Month - Therms	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-22	Oct-22	Nov-22	Dec-22	12 Month Total	% dist by rate classes
R-1	116,525	95,870	88,373	62,568	46,763	36,282	28,494	34,059	34,925	51,370	76,568	110,928	782,726	0.5%
R-3	9,329,701	8,465,362	7,569,224	4,246,158	2,220,578	1,365,550	1,026,452	1,164,300	1,419,761	2,791,355	5,463,419	8,651,928	53,713,788	34.9%
R-4	0	0	0	0	0	0	0	0	18,893	0	0	0	18,893	0.0%
R-5	0	0	0	0	0	0	0	0	337	0	0	0	337	0.0%
R-6	0	0	0	0	0	0	0	0	1,786	0	0	0	1,786	0.0%
R-7	0	0	0	0	0	0	0	0	24	0	0	0	24	0.0%
Total Residential	9,446,226	8,561,233	7,657,597	4,308,726	2,267,340	1,401,831	1,054,946	1,198,359	1,475,727	2,842,726	5,539,988	8,762,857	54,517,556	35.4%
G-41	4,040,241	3,707,974	3,255,844	1,659,695	689,554	369,014	247,475	278,160	406,082	948,173	2,160,083	3,680,755	21,443,051	13.9%
G-42	5,229,624	4,785,614	4,459,339	2,570,209	1,221,290	694,110	488,490	546,070	824,689	1,732,707	3,239,691	4,936,113	30,727,946	19.9%
G-43	1,664,167	1,568,185	1,556,851	985,201	620,382	422,696	283,855	327,210	385,136	770,427	1,142,259	1,583,809	11,310,176	7.3%
G-44	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-46	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-51	436,236	379,206	363,480	288,024	259,887	228,667	210,418	231,034	248,621	315,924	339,987	410,523	3,712,007	2.4%
G-52	946,592	872,545	866,272	685,066	593,181	528,095	489,857	548,357	557,388	652,378	750,703	900,399	8,390,834	5.4%
G-53	976,089	861,796	1,016,960	805,898	751,177	680,987	585,303	662,093	588,990	720,439	688,706	913,998	9,252,436	6.0%
G-54	1,234,927	1,091,431	1,073,946	1,139,872	1,488,830	1,406,733	1,315,908	1,328,847	1,230,371	1,330,713	1,065,279	980,006	14,686,865	9.5%
G-55	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-56	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-58	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
INAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Total C&I	14,527,876	13,266,750	12,592,692	8,133,966	5,624,301	4,330,302	3,621,306	3,921,772	4,241,277	6,470,762	9,386,708	13,405,604	99,523,316	64.6%
Total	23,974,102	21,827,983	20,250,289	12,442,692	7,891,641	5,732,133	4,676,252	5,120,130	5,717,005	9,313,488	14,926,695	22,168,461	154,040,872	100.0%
% dist by calendar months	15.6%	14.2%	13.1%	8.1%	5.1%	3.7%	3.0%	3.3%	3.7%	6.0%	9.7%	14.4%	100.0%	

Table: 2.5

Consumption (Therms) : % Change relative to TY2019 ((Q1 - Q0) / Q0)

Calendar Month - Therms	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-22	Oct-22	Nov-22	Dec-22	12 Month Average
R-1	18.6%	16.2%	8.9%	0.0%	-9.0%	-7.5%	-12.9%	1.5%	-3.5%	8.6%	3.0%	22.2%	7.2%
R-3	-15.6%	-7.7%	-3.4%	-2.5%	-10.1%	6.2%	3.1%	14.9%	11.2%	-3.2%	-22.5%	-6.4%	-8.4%
R-4	-	-	-	-	-	-	-	-	-	-	-	-	-
R-5	-	-	-	-	-	-	-	-	-37.2%	-	-	-	-
R-6	-	-	-	-	-	-	-	-	-54.8%	-	-	-	-
R-7	-	-	-	-	-	-	-	-	-21.5%	-	-	-	-
Total Residential	-21.7%	-14.4%	-10.6%	-9.9%	-16.8%	-2.2%	-4.9%	6.2%	4.6%	-9.9%	-28.0%	-12.9%	-15.0%
G-41	-21.9%	-13.4%	-7.8%	-6.0%	-20.3%	4.9%	5.2%	15.3%	15.2%	-6.7%	-28.1%	-11.4%	-14.1%
G-42	-19.9%	-12.6%	-5.6%	-3.8%	-17.6%	0.1%	-2.7%	2.1%	7.4%	-1.5%	-24.2%	-11.8%	-12.2%
G-43	-12.7%	0.5%	8.5%	9.5%	2.7%	24.3%	1.2%	9.7%	12.9%	21.3%	-12.7%	-5.4%	0.2%
G-44	-	-	-	-	-	-	-	-	-	-	-	-	-
G-45	-	-	-	-	-	-	-	-	-	-	-	-	-
G-46	-	-	-	-	-	-	-	-	-	-	-	-	-
G-51	-15.0%	-13.2%	-14.0%	-13.2%	-12.8%	-8.2%	-9.2%	-10.6%	-2.2%	10.5%	-13.0%	-10.0%	-10.1%
G-52	-18.9%	-11.7%	-11.2%	-11.2%	-9.8%	-4.4%	-9.6%	-5.6%	-5.4%	-7.1%	-21.6%	-16.6%	-12.3%
G-53	-27.0%	-19.1%	-2.0%	-2.5%	-3.3%	2.6%	-11.7%	-5.1%	-8.0%	-8.0%	-28.0%	-14.4%	-12.1%
G-54	-7.0%	-9.5%	-9.4%	-12.9%	-9.2%	-15.7%	-25.7%	-24.8%	-24.3%	-20.1%	-31.0%	-24.2%	-18.4%
G-55	-	-	-	-	-	-	-	-	-	-	-	-	-
G-56	-	-	-	-	-	-	-	-	-	-	-	-	-
G-57	-	-	-	-	-	-	-	-	-	-	-	-	-
G-58	-	-	-	-	-	-	-	-	-	-	-	-	-
INAT	-	-	-	-	-	-	-	-	-	-	-	-	-
Total C&I	-19.2%	-11.9%	-5.7%	-5.6%	-11.4%	-4.6%	-14.6%	-10.8%	-7.9%	-6.0%	-24.8%	-12.9%	-12.6%
Total	-20.2%	-12.9%	-7.6%	-7.1%	-13.0%	-4.0%	-12.6%	-7.3%	-5.0%	-7.2%	-26.0%	-12.9%	-13.5%

Table: 3.1

Revenue without RDAF (\$)					
	Test Year	Rate Case S/A (DG 20-105)	DY3	DY4	DY5
Residential	48,161,903	50,380,528	50,346,404	49,382,370	52,813,149
C&I	38,909,995	40,702,422	39,797,551	39,660,589	43,195,709
Total	87,071,898	91,082,950	90,143,955	89,042,958	96,008,858

Table: 3.2

Revenue : Y-o-Y Change					
	DY3	DY4	DY5	Avg Grw Rate (DY3 to DY5)	Cumulative Growth Rate (TY to DY5)
Residential	4.5%	2.5%	9.7%	5.6%	2.3%
C&I	2.3%	1.9%	11.0%	5.1%	2.6%
Total	3.5%	2.3%	10.3%	5.4%	2.5%

Table: 3.3

R0: Revenue (\$) : Test Year 2019

Calendar Month - Revenue	19-Jan	19-Feb	19-Mar	19-Apr	19-May	19-Jun	19-Jul	19-Aug	19-Sep	19-Oct	19-Nov	19-Dec	12 Month Total	% dist by rate classes
	R-1	90,773	80,487	84,912	76,520	73,434	67,029	66,076	66,535	65,795	71,674	77,608	88,362	909,206
R-3	7,177,583	6,240,178	5,533,508	3,620,531	2,509,090	1,811,213	1,684,968	1,695,145	1,809,174	2,746,731	4,493,734	6,316,317	45,638,172	52.4%
R-4	231,668	199,524	178,463	116,481	79,756	57,853	52,319	51,309	53,157	81,790	141,183	190,009	1,433,511	1.6%
R-5	1925	1919	1904	1670	1481	1488	1509	1388	1593	1812	2272	2521	21481	0.0%
R-6	19635	18321	16695	11231	8000	5936	5676	5471	6855	11890	21498	27584	158791	0.2%
R-7	77	72	67	53	45	33	31	28	33	57	107	138	742	0.0%
Total Residential	7,521,660	6,540,502	5,815,550	3,826,485	2,671,807	1,943,551	1,810,579	1,819,877	1,936,606	2,913,953	4,736,401	6,624,931	48,161,903	55.3%
G-41	2,264,401	1,973,915	1,777,690	1,188,393	835,359	630,220	600,531	599,223	620,369	877,370	1,437,750	1,982,533	14,787,756	17.0%
G-42	2,246,068	1,962,433	1,768,370	1,170,033	736,078	469,305	418,536	432,779	497,941	824,405	1,456,621	2,030,089	14,012,658	16.1%
G-43	527,705	449,633	415,125	279,848	111,172	77,943	71,518	70,704	75,425	111,359	330,929	471,437	2,992,799	3.4%
G-44	476	482	415	283	220	180	189	264	298	777	1,345	1,806	6,735	0.0%
G-45	7873	6963	5994	3801	3113	1401	1140	2015	3833	7106	11,663	14,663	69,565	0.1%
G-46		943	1,887	2,830	3,773	4,717	5,660	6,604	7,547	8,490	9,434	10,377	62,262	0.1%
G-51	177,119	156,405	161,170	142,146	136,995	125,110	125,347	131,120	127,160	135,859	148,830	167,986	1,735,247	2.0%
G-52	281,837	245,759	251,897	217,343	157,571	143,273	145,459	151,356	148,770	164,333	241,496	275,201	2,424,297	2.8%
G-53	249,154	205,176	200,567	165,764	89,151	79,252	78,795	80,594	76,558	88,218	174,510	204,212	1,691,952	1.9%
G-54	105,845	96,421	97,226	103,763	77,590	77,932	81,733	80,439	74,947	76,940	117,178	102,513	1,092,528	1.3%
G-55	389	355	360	297	282	241	231	248	241	277	333	389	3,642	0.0%
G-56													0	0.0%
G-57													0	0.0%
G-58	2,580	3,723	3,622	3,406	1,969	1,744	1,767	1,767	1,874	2,018	2,915	3,167	30,553	0.0%
Total C&I	5,863,447	5,102,208	4,684,323	3,277,909	2,153,274	1,611,318	1,530,907	1,557,114	1,634,963	2,297,153	3,933,005	5,264,372	38,909,995	44.7%
Total	13,385,107	11,642,710	10,499,873	7,104,395	4,825,081	3,554,869	3,341,486	3,376,991	3,571,570	5,211,107	8,669,406	11,889,303	87,071,898	100.0%
% dist by calendar months	15.4%	13.4%	12.1%	8.2%	5.5%	4.1%	3.8%	3.9%	4.1%	6.0%	10.0%	13.7%	100.0%	

Table: 3.4

R1: Revenue (\$) : Decoupling Year 5 (DYS - Sept 2022 to Aug 2023)

Calendar Month - Therms	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-22	Oct-22	Nov-22	Dec-22	12 Month Total	% dist by rate classes
R-1	123,788	103,533	100,893	87,470	76,739	69,064	68,493	68,380	69,532	78,838	92,489	115,296	1,054,516	1.1%
R-3	8,177,320	7,067,862	6,353,884	4,178,415	2,758,944	2,130,638	2,002,064	2,026,811	2,146,787	3,102,244	4,658,213	7,114,531	51,717,715	53.9%
R-4	0	0	0	0	0	0	0	0	35,269	0	0	0	35,269	0.0%
R-5	0	0	0	0	0	0	0	0	1,066	0	0	0	1,066	0.0%
R-6	0	0	0	0	0	0	0	0	4,492	0	0	0	4,492	0.0%
R-7	0	0	0	0	0	0	0	0	90	0	0	0	90	0.0%
Total Residential	8,301,109	7,171,395	6,454,778	4,265,885	2,835,683	2,199,702	2,070,556	2,095,192	2,257,236	3,181,082	4,750,702	7,229,827	52,813,149	55.0%
G-41	2,480,311	2,184,439	2,004,421	1,388,700	898,902	737,526	732,953	703,119	735,151	979,998	1,501,727	2,181,748	16,528,997	17.2%
G-42	2,481,760	2,171,556	2,034,891	1,383,437	754,529	546,465	490,464	485,657	589,283	945,739	1,578,651	2,217,634	15,680,066	16.3%
G-43	605,489	532,961	521,952	356,947	143,542	113,407	95,133	94,057	106,463	163,292	402,829	535,566	3,671,637	3.8%
G-44	0	0	0	0	0	0	0	0	41	0	0	0	41	0.0%
G-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-46	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-51	191,223	168,202	170,257	154,314	146,023	134,684	137,050	134,074	140,006	157,672	160,593	180,656	1,874,754	2.0%
G-52	303,760	274,014	277,053	241,075	179,534	165,217	167,032	165,371	168,662	187,177	248,934	284,815	2,662,645	2.8%
G-53	214,662	189,350	220,167	180,993	99,879	92,682	85,634	87,743	82,291	97,430	156,893	199,143	1,706,866	1.8%
G-54	111,448	99,723	97,944	104,650	85,016	80,673	77,132	73,701	72,751	76,762	97,855	93,049	1,070,704	1.1%
G-55	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-56	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-57	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
G-58	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
INAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
Total C&I	6,388,652	5,620,244	5,326,684	3,810,116	2,307,426	1,870,654	1,785,399	1,743,722	1,894,647	2,608,070	4,147,483	5,692,611	43,195,709	45.0%
Total	14,689,761	12,791,640	11,781,462	8,076,001	5,143,109	4,070,356	3,855,955	3,838,914	4,151,884	5,789,152	8,898,185	12,922,439	96,008,858	100.0%
% dist by calendar months	15.3%	13.3%	12.3%	8.4%	5.4%	4.2%	4.0%	4.0%	4.3%	6.0%	9.3%	13.5%	100.0%	

Table: 3.5

Revenue (\$) : % Change relative to TY2019 ((R1 - R0) / R0)

Calendar Month - Therms	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-21	Oct-21	Nov-21	Dec-21	12 Month Average
R-1	36.4%	28.6%	18.8%	14.3%	4.5%	3.0%	3.7%	2.8%	5.7%	10.0%	19.2%	30.5%	16.0%
R-3	13.9%	13.3%	14.8%	15.4%	10.0%	17.6%	18.8%	19.6%	18.7%	12.9%	3.7%	12.6%	13.3%
R-4	-	-	-	-	-	-	-	-	-33.7%	-	-	-	-97.5%
R-5	-	-	-	-	-	-	-	-	-33.1%	-	-	-	-95.0%
R-6	-	-	-	-	-	-	-	-	-34.5%	-	-	-	-97.2%
R-7	-	-	-	-	-	-	-	-	174.1%	-	-	-	-87.8%
Total Residential	10.4%	9.6%	11.0%	11.5%	6.1%	13.2%	14.4%	15.1%	16.6%	9.2%	0.3%	9.1%	9.7%
G-41	9.5%	10.7%	12.8%	16.9%	7.6%	17.0%	22.1%	17.3%	18.5%	11.7%	4.4%	10.0%	11.8%
G-42	10.5%	10.7%	15.1%	18.2%	2.5%	16.4%	17.2%	12.2%	18.3%	14.7%	8.4%	9.2%	11.9%
G-43	14.7%	18.5%	25.7%	27.6%	29.1%	45.5%	33.0%	33.0%	41.2%	46.6%	21.7%	13.6%	22.7%
G-44	-	-	-	-	-	-	-	-	-86.3%	-	-	-	-99.4%
G-45	-	-	-	-	-	-	-	-	-	-	-	-	-
G-46	-	-	-	-	-	-	-	-	-	-	-	-	-
G-51	8.0%	7.5%	5.6%	8.6%	6.6%	7.7%	9.3%	2.3%	10.1%	16.1%	7.9%	7.5%	8.0%
G-52	7.8%	11.5%	10.0%	10.9%	13.9%	15.3%	14.8%	9.3%	13.4%	13.9%	3.1%	3.5%	9.8%
G-53	-13.8%	-7.7%	9.8%	9.2%	12.0%	16.9%	8.7%	8.9%	7.5%	10.4%	-10.1%	-2.5%	0.9%
G-54	5.3%	3.4%	0.7%	0.9%	9.6%	3.5%	-5.6%	-8.4%	-2.9%	-0.2%	-16.5%	-9.2%	-2.0%
G-55	-	-	-	-	-	-	-	-	-	-	-	-	-
G-56	-	-	-	-	-	-	-	-	-	-	-	-	-
G-57	-	-	-	-	-	-	-	-	-	-	-	-	-
G-58	-	-	-	-	-	-	-	-	-	-	-	-	-
INAT	-	-	-	-	-	-	-	-	-	-	-	-	-
Total C&I	9.0%	10.2%	13.7%	16.2%	7.2%	16.1%	16.6%	12.0%	15.9%	13.5%	5.5%	8.1%	11.0%
Total	9.7%	9.9%	12.2%	13.7%	6.6%	14.5%	15.4%	13.7%	16.2%	11.1%	2.6%	8.7%	10.3%

Table: 4.4

p1: Price Per Therms (\$) : Decoupling Year 5 (DY5 - Sept 2022 to Aug 2023)

Price Per Therm (\$)				
	Test Year	DY3	DY4	DY5
Residential	0.7011	1.0076	1.3767	1.6900
C&I	0.7078	0.7628	1.1025	1.3244
Total	0.7044	0.8852	1.2396	1.5072

Table: 4.2

Average Price : Y-o-Y Change						
	DY3	DY4	DY5	Avg Grw Rate (DY3 to DY5)	Cumulative Growth Rate (TY to DY5)	
Residential	43.7%	96.4%	141.1%	93.7%	24.6%	
C&I	7.8%	55.8%	87.1%	50.2%	17.0%	
Total	25.7%	76.0%	114.0%	71.9%	20.9%	

Table: 4.3

Calendar Month - Gas Price Per Therm													12-month average
	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	
R-1	1.2008	1.1219	0.9716	1.0329	0.8949	0.8949	1.0060	1.0060	1.0060	1.0060	1.0357	1.0357	1.0177
R-3	1.2008	1.1219	0.9716	1.0329	0.8949	0.8949	1.0060	1.0060	1.0060	1.0060	1.0357	1.0357	1.0177
R-4	1.2008	1.1219	0.9716	1.0329	0.8949	0.8949	1.0060	1.0060	1.0060	1.0060	1.0357	1.0357	1.0177
R-5	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844
R-6	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844
R-7	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844
Residential Average	0.7926	0.7532	0.6780	0.7087	0.6397	0.6397	0.6952	0.6952	0.6952	0.6952	0.7101	0.7101	0.7011
G-41	1.2097	1.1308	0.9805	1.0418	0.9018	0.9018	1.0122	1.0122	1.0122	1.0122	1.0512	1.0512	1.0265
G-42	1.2097	1.1308	0.9805	1.0418	0.9018	0.9018	1.0122	1.0122	1.0122	1.0122	1.0512	1.0512	1.0265
G-43	1.2097	1.1308	0.9805	1.0418	0.9018	0.9018	1.0122	1.0122	1.0122	1.0122	1.0512	1.0512	1.0265
G-44	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844
G-45	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844
G-46	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844
G-51	1.2150	1.1361	0.9858	1.0471	0.9107	0.9107	1.0234	1.0234	1.0234	1.0234	1.0580	1.0580	1.0346
G-52	1.2150	1.1361	0.9858	1.0471	0.9107	0.9107	1.0234	1.0234	1.0234	1.0234	1.0580	1.0580	1.0346
G-53	1.2150	1.1361	0.9858	1.0471	0.9107	0.9107	1.0234	1.0234	1.0234	1.0234	1.0580	1.0580	1.0346
G-54	1.2150	1.1361	0.9858	1.0471	0.9107	0.9107	1.0234	1.0234	1.0234	1.0234	1.0580	1.0580	1.0346
G-55	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844
G-56	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844
G-57	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844
G-58	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844	0.3844
INAT													
C&I Average	0.7986	0.7591	0.6840	0.7146	0.6456	0.6456	0.7015	0.7015	0.7015	0.7015	0.7197	0.7197	0.7078
Total	0.7956	0.7561	0.6810	0.7116	0.6426	0.6426	0.6984	0.6984	0.6984	0.6984	0.7149	0.7149	0.7044

Table: 4.4

p1: Price Per Therms (\$) : Decoupling Year 5 (DYS - Sept 2022 to Aug 2023)

Calendar Month - Gas												Average by rate classes	
Price Per Therm													
	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-22	Oct-22	Nov-22	Dec-22	
R-1	1.9534	1.0767	0.8685	0.7568	1.9078	1.8747	1.8380	1.5273	1.8742	1.8742	2.0515	1.8766	1.6233
R-3	2.0924	1.2157	1.0075	0.8958	2.0468	2.0137	1.9770	1.6663	2.0132	2.0132	2.1905	2.0156	1.7623
R-4	1.2009	0.7187	0.6042	0.5427	2.0468	2.0137	1.9770	1.6663	2.0132	2.0132	1.2536	1.1574	1.4340
R-5	2.1073	1.2306	1.0224	0.9107	2.0617	2.0286	1.9919	1.6812	2.0281	2.0281	2.2054	2.0305	1.7772
R-6	2.2880	1.4113	1.2031	1.0914	2.2424	2.2093	2.1726	1.8619	2.2088	2.2088	2.3861	2.2112	1.9579
R-7	1.3085	0.8263	0.7118	0.6503	2.2424	2.2093	2.1726	1.8619	2.2088	2.2088	1.3612	1.2650	1.5856
Total Residential	1.8251	1.0799	0.9029	0.8080	2.0913	2.0582	2.0215	1.7108	2.0577	2.0577	1.9081	1.7594	1.6900
G-41	1.7733	0.8966	0.6884	0.5767	1.7279	1.6948	1.6581	1.3474	1.6844	1.6844	1.8723	1.6974	1.4418
G-42	1.7395	0.8628	0.6546	0.5429	1.6941	1.6610	1.6243	1.3136	1.6506	1.6506	1.8385	1.6636	1.4080
G-43	1.7046	0.8279	0.6197	0.5080	1.5170	1.4839	1.4472	1.1365	1.4735	1.4735	1.8036	1.6287	1.3020
G-44	1.8797	1.0030	0.7948	0.6831	1.8343	1.8012	1.7645	1.4538	1.7908	1.7908	1.9787	1.8038	1.5482
G-45	1.8358	0.9591	0.7509	0.6392	1.7904	1.7573	1.7206	1.4099	1.7469	1.7469	1.9348	1.7599	1.5043
G-46	1.7905	0.9138	0.7056	0.5939	1.5602	1.5271	1.4904	1.1797	1.5167	1.5167	1.8895	1.7146	1.3666
G-51	1.6262	0.7495	0.5413	0.4296	1.5807	1.5476	1.5109	1.2002	1.5359	1.5359	1.7252	1.5503	1.2944
G-52	1.6014	0.7247	0.5165	0.4048	1.4942	1.4611	1.4244	1.1137	1.4494	1.4494	1.7004	1.5255	1.2388
G-53	1.6029	0.7262	0.5180	0.4063	1.4691	1.4360	1.3993	1.0886	1.4243	1.4243	1.7019	1.5270	1.2270
G-54	1.4883	0.6116	0.4034	0.2917	1.4132	1.3801	1.3434	1.0327	1.3684	1.3684	1.5873	1.4124	1.1417
G-55	1.6888	0.8121	0.6039	0.4922	1.6433	1.6102	1.5735	1.2628	1.5985	1.5985	1.7878	1.6129	1.3570
G-56	1.6565	0.7798	0.5716	0.4599	1.5308	1.4977	1.4610	1.1503	1.4860	1.4860	1.7555	1.5806	1.2846
G-57	1.6585	0.7818	0.5736	0.4619	1.4982	1.4651	1.4284	1.1177	1.4534	1.4534	1.7575	1.5826	1.2693
G-58	1.5094	0.6327	0.4245	0.3128	1.4254	1.3923	1.3556	1.0449	1.3806	1.3806	1.6084	1.4335	1.1584
INAT													
Total C&I	1.6825	0.8058	0.5976	0.4859	1.5842	1.5511	1.5144	1.2037	1.5400	1.5400	1.7815	1.6066	1.3244
Average by calendar months	1.7538	0.9429	0.7503	0.6469	1.8378	1.8047	1.7680	1.4573	1.7988	1.7988	1.8448	1.6830	1.5072

Table: 4.5

Price : % Change relative to TY2019 ((p1 - p0) / p0)

Calendar Month - Gas												12 Month Average	
Price Per Therm													
	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-22	Oct-22	Nov-22	Dec-22	
R-1	62.7%	-4.0%	-10.6%	-26.7%	113.2%	109.5%	82.7%	51.8%	86.3%	86.3%	98.1%	81.2%	59.5%
R-3	74.3%	8.4%	3.7%	-13.3%	128.7%	125.0%	96.5%	65.6%	100.1%	100.1%	111.5%	94.6%	73.2%
R-4	0.0%	-35.9%	-37.8%	-47.5%	128.7%	125.0%	96.5%	65.6%	100.1%	100.1%	21.0%	11.8%	40.9%
R-5	448.2%	220.1%	166.0%	136.9%	436.3%	427.7%	418.2%	337.4%	427.6%	427.6%	473.7%	428.2%	362.3%
R-6	495.2%	267.1%	213.0%	183.9%	483.4%	474.7%	465.2%	384.4%	474.6%	474.6%	520.7%	475.2%	409.3%
R-7	240.4%	115.0%	85.2%	69.2%	483.4%	474.7%	465.2%	384.4%	474.6%	474.6%	254.1%	229.1%	312.5%
Total Residential	130.3%	43.4%	33.2%	14.0%	226.9%	221.8%	190.8%	146.1%	196.0%	196.0%	168.7%	147.8%	141.1%
G-41	46.6%	-20.7%	-29.8%	-44.6%	91.6%	87.9%	63.8%	33.1%	66.4%	66.4%	78.1%	61.5%	40.5%
G-42	43.8%	-23.7%	-33.2%	-47.9%	87.9%	84.2%	60.5%	29.8%	63.1%	63.1%	74.9%	58.3%	37.2%
G-43	40.9%	-26.8%	-36.8%	-51.2%	68.2%	64.5%	43.0%	12.3%	45.6%	45.6%	71.6%	54.9%	26.8%
G-44	389.0%	160.9%	106.8%	77.7%	377.2%	368.6%	359.0%	278.2%	365.9%	365.9%	414.8%	369.3%	302.8%
G-45	377.6%	149.5%	95.3%	66.3%	365.8%	357.2%	347.6%	266.8%	354.4%	354.4%	403.3%	357.8%	291.3%
G-46	365.8%	137.7%	83.6%	54.5%	305.9%	297.3%	287.7%	206.9%	294.6%	294.6%	391.5%	346.0%	255.5%
G-51	33.8%	-34.0%	-45.1%	-59.0%	73.6%	69.9%	47.6%	17.3%	50.1%	50.1%	63.1%	46.5%	25.1%
G-52	31.8%	-36.2%	-47.6%	-61.3%	64.1%	60.4%	39.2%	8.8%	41.6%	41.6%	60.7%	44.2%	19.7%
G-53	31.9%	-36.1%	-47.5%	-61.2%	61.3%	57.7%	36.7%	6.4%	39.2%	39.2%	60.9%	44.3%	18.6%
G-54	22.5%	-46.2%	-59.1%	-72.1%	55.2%	51.5%	31.3%	0.9%	33.7%	33.7%	50.0%	33.5%	10.4%
G-55	339.3%	111.3%	57.1%	28.0%	327.5%	318.9%	309.3%	228.5%	315.8%	315.8%	365.1%	319.6%	253.0%
G-56	330.9%	102.9%	48.7%	19.6%	298.2%	289.6%	280.1%	199.2%	286.6%	286.6%	356.7%	311.2%	234.2%
G-57	331.5%	103.4%	49.2%	20.2%	289.8%	281.1%	271.6%	190.8%	278.1%	278.1%	357.2%	311.7%	230.2%
G-58	292.7%	64.6%	10.4%	-18.6%	270.8%	262.2%	252.7%	171.8%	259.2%	259.2%	318.4%	272.9%	201.4%
INAT													
Total C&I	110.7%	6.2%	-12.6%	-32.0%	145.4%	140.2%	115.9%	71.6%	119.5%	119.5%	147.5%	123.2%	87.1%
Average by calendar months	120.4%	24.7%	10.2%	-9.1%	186.0%	180.8%	153.2%	108.7%	157.6%	157.6%	158.0%	135.4%	114.0%

Table: 5.1

Usage Per Customer (Therm)				
	Test Year	DY3	DY4	DY5
Residential	64.6	58.5	57.7	53.0
C&I	749.3	684.8	675.7	634.1
Total	155.4	141.3	139.5	129.8

Table: 5.2

UPC : Y-o-Y Change					
	DY3	DY4	DY5	Avg Grw Rate (DY3 to DY5)	Cumulative Growth Rate (TY to DY5)
Residential	-9.5%	-10.7%	-17.9%	-12.7%	-4.8%
C&I	-8.6%	-9.8%	-15.4%	-11.3%	-4.1%
Total	-9.1%	-10.3%	-16.5%	-11.9%	-4.4%

Table: 5.3

q0: Usage Per Customer, UPC (Therms) : Test Year 2019

Calendar Month - Therms	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	12-month average
R-1	27.6	25.7	22.8	18.2	14.5	11.4	9.3	9.5	10.6	13.4	21.7	25.6	17.5
R-3	148.2	135.8	104.7	60.2	33.1	17.8	13.4	13.6	17.7	38.4	96.6	121.6	66.8
R-4	142.8	130.0	101.8	59.4	32.8	18.4	13.8	14.0	17.6	37.5	93.2	117.6	64.9
R-5	65.4	50.4	42.1	23.7	14.6	7.6	6.2	6.7	8.0	15.0	25.6	33.1	24.8
R-6	288.0	241.8	203.3	96.9	48.4	18.3	13.7	15.2	19.6	50.2	100.2	133.5	102.4
R-7	236.0	219.0	205.0	66.0	24.7	9.7	7.7	7.0	10.3	38.7	95.3	131.7	87.6
Total Residential	142.8	130.9	101.1	58.4	32.3	17.6	13.2	13.5	17.4	37.3	93.2	117.4	64.6
G-41	531.9	485.8	361.8	187.9	90.7	38.9	25.6	26.4	39.8	107.9	319.0	422.0	219.8
G-42	4,541.3	4,212.1	3,283.9	1,932.4	1,041.5	505.9	349.2	368.6	547.8	1,203.8	2,991.4	3,788.2	2,063.8
G-43	31,763.9	29,453.6	24,733.2	16,666.0	10,980.3	6,538.5	5,292.2	6,089.3	7,104.3	12,708.0	27,270.1	31,586.9	17,515.5
G-44	835.0	385.5	285.5	138.5	76.5	36.0	31.5	26.0	56.7	280.5	612.5	884.8	304.1
G-45	4,266.5	3,752.3	2,982.0	1,584.5	1,285.8	246.3	105.8	211.7	729.3	1,915.4	3,502.4	4,614.0	2,099.7
G-46	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
G-51	383.4	361.7	315.9	257.0	224.7	194.0	172.8	190.9	195.1	211.7	298.8	338.7	262.1
G-52	2,994.1	2,806.9	2,487.9	2,025.4	1,656.8	1,434.6	1,351.0	1,431.1	1,503.2	1,716.9	2,389.1	2,589.7	2,032.2
G-53	36,138.8	31,349.7	29,663.1	24,302.3	21,567.6	18,957.4	19,502.6	21,140.7	19,633.7	23,023.7	28,976.0	31,405.8	25,471.8
G-54	47,408.4	46,396.7	40,892.5	48,485.0	58,555.7	61,809.3	65,556.6	67,940.5	65,030.6	64,052.6	61,793.6	47,903.3	56,318.7
G-55	207.0	192.3	168.0	87.7	57.3	19.3	4.0	19.0	19.7	52.3	140.3	208.3	97.9
G-56													
G-57													
G-58	19,016.0	33,980.0	31,595.0	29,380.0	21,467.0	17,183.0	16,968.0	16,982.0	20,073.0	22,561.0	23,451.0	26,099.0	23,229.6
Total C&I	1,381.4	1,277.2	1,022.6	684.7	495.5	371.5	338.8	352.1	380.8	539.3	984.3	1,163.3	749.3
Total	308.3	284.1	224.2	141.8	93.4	63.8	55.5	57.4	64.4	103.2	211.8	257.1	155.4

Table: 5.4

q1: Usage Per Customer, UPC (Therms) : Decoupling Year 5 (DYS - Sept 2022 to Aug 2023)

Calendar Month - Therms	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-22	Oct-22	Nov-22	Dec-22	12-month average
R-1	33.4	30.1	26.1	18.4	13.8	11.2	8.2	10.0	10.4	15.1	22.6	31.8	19.3
R-3	110.5	109.8	90.5	50.4	26.3	17.0	11.9	13.7	17.9	33.6	67.6	103.7	54.4
R-4	-	-	-	-	-	-	-	-	-	-	-	-	-
R-5	-	-	-	-	-	-	-	-	-	-	-	-	-
R-6	-	-	-	-	-	-	-	-	-	-	-	-	-
R-7	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Residential	107.5	106.7	88.0	49.2	25.8	16.7	11.7	13.6	17.5	32.9	65.8	100.8	53.0
G-41	402.4	401.9	325.2	165.4	69.1	39.3	24.7	28.3	44.4	97.7	225.3	369.1	182.7
G-42	3,507.3	3,477.7	2,944.4	1,687.9	798.0	477.3	313.7	357.0	567.8	1,152.4	2,214.2	3,292.1	1,732.5
G-43	25,562.5	25,142.2	23,747.1	14,895.9	9,381.6	6,538.1	4,250.6	5,105.3	6,122.3	12,165.6	18,112.1	24,359.2	14,615.2
G-44	-	-	-	-	-	-	-	-	-	-	-	-	-
G-45	-	-	-	-	-	-	-	-	-	-	-	-	-
G-46	-	-	-	-	-	-	-	-	-	-	-	-	-
G-51	333.7	314.7	277.9	218.9	197.4	182.5	156.2	174.8	195.0	241.0	267.1	314.8	239.5
G-52	2,225.6	2,219.3	2,025.5	1,595.6	1,379.4	1,292.7	1,109.4	1,260.7	1,371.2	1,551.4	1,834.4	2,119.1	1,665.4
G-53	30,320.1	26,492.6	29,667.2	24,172.7	23,267.0	21,336.4	16,939.6	19,267.8	19,522.0	21,860.3	20,845.0	27,910.4	23,466.8
G-54	47,217.3	42,131.2	42,843.6	41,973.2	53,006.9	52,167.5	48,388.3	49,035.6	47,080.5	51,091.7	42,575.3	36,255.7	46,147.2
G-55	-	-	-	-	-	-	-	-	-	-	-	-	-
G-56	-	-	-	-	-	-	-	-	-	-	-	-	-
G-57	-	-	-	-	-	-	-	-	-	-	-	-	-
G-58	-	-	-	-	-	-	-	-	-	-	-	-	-
G-58	-	-	-	-	-	-	-	-	-	-	-	-	-
Total C&I	1,085.2	1,076.7	940.6	605.6	420.2	343.1	268.0	295.8	341.9	495.3	730.4	1,006.0	634.1
Total	236.7	235.8	201.6	123.2	78.0	59.5	45.2	50.4	59.0	93.6	153.9	221.1	129.8

Table: 5.5

UPC (Therms) : % Change relative to TY2019 ((q1 - q0) / q0)

Calendar Month - Therms	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-22	Oct-22	Nov-22	Dec-22	12 Month Average
R-1	20.9%	17.0%	14.1%	0.9%	-4.8%	-2.3%	-11.4%	5.8%	-1.6%	12.7%	4.4%	24.5%	9.9%
R-3	-25.4%	-19.1%	-13.6%	-16.2%	-20.5%	-4.9%	-11.3%	0.7%	1.1%	-12.6%	-30.0%	-14.8%	-18.5%
R-4	-	-	-	-	-	-	-	-	-	-	-	-	-
R-5	-	-	-	-	-	-	-	-	-	-	-	-	-
R-6	-	-	-	-	-	-	-	-	-	-	-	-	-
R-7	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Residential	-24.7%	-18.5%	-13.0%	-15.8%	-20.1%	-4.9%	-11.4%	0.7%	0.6%	-12.0%	-29.4%	-14.1%	-17.9%
G-41	-24.4%	-17.3%	-10.1%	-12.0%	-23.8%	1.1%	-3.5%	7.1%	11.6%	-9.5%	-29.4%	-12.5%	-16.9%
G-42	-22.8%	-17.4%	-10.3%	-12.7%	-23.4%	-5.7%	-10.2%	-3.2%	3.7%	-4.3%	-26.0%	-13.1%	-16.1%
G-43	-19.5%	-14.6%	-4.0%	-10.6%	-14.6%	0.0%	-19.7%	-16.2%	-13.8%	-4.3%	-33.6%	-22.9%	-16.6%
G-44	-	-	-	-	-	-	-	-	-	-	-	-	-
G-45	-	-	-	-	-	-	-	-	-	-	-	-	-
G-46	-	-	-	-	-	-	-	-	-	-	-	-	-
G-51	-13.0%	-13.0%	-12.0%	-14.9%	-12.1%	-5.9%	-9.6%	-8.4%	0.0%	13.8%	-10.6%	-7.1%	-8.6%
G-52	-25.7%	-20.9%	-18.6%	-21.2%	-16.7%	-9.9%	-17.9%	-11.9%	-8.8%	-9.6%	-23.2%	-18.2%	-18.1%
G-53	-16.1%	-15.5%	0.0%	-0.5%	7.9%	12.5%	-13.1%	-8.9%	-0.6%	-5.1%	-28.1%	-11.1%	-7.9%
G-54	-0.4%	-9.2%	4.8%	-13.4%	-9.5%	-15.6%	-26.2%	-27.8%	-27.6%	-20.2%	-31.1%	-24.3%	-18.1%
G-55	-	-	-	-	-	-	-	-	-	-	-	-	-
G-56	-	-	-	-	-	-	-	-	-	-	-	-	-
G-57	-	-	-	-	-	-	-	-	-	-	-	-	-
G-58	-	-	-	-	-	-	-	-	-	-	-	-	-
INAT	-	-	-	-	-	-	-	-	-	-	-	-	-
Total C&I	-21.4%	-15.7%	-8.0%	-11.6%	-15.2%	-7.6%	-20.9%	-16.0%	-10.2%	-8.2%	-25.8%	-13.5%	-15.4%
Total	-23.2%	-17.0%	-10.1%	-13.1%	-16.5%	-6.7%	-18.6%	-12.2%	-8.4%	-9.3%	-27.4%	-14.0%	-16.5%