STATE OF NEW YORK

PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of National Fuel Gas Distribution Corporation (New York), for Gas Service.

CASE 16-G-0257

TESTIMONY OF WILLIAM D. YATES, CPA

FOR

PUBLIC UTILITY LAW PROJECT OF NEW YORK, INC.

Dated: August 26, 2016

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I. INTRODUCTION AND OVERVIEW

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND IDENTIFY FOR WHOM YOU ARE PRESENTING TESTIMONY IN THIS PROCEEDING.

My name is William D. Yates, my office address is at Public Utility Law Project of New York, Inc., 90 South Swan Street - Suite 401, Albany, NY 12210. I am presenting testimony in this proceeding for the Public Utility Law Project of New York, Inc. (PULP).

Q. PLEASE DESCRIBE PULP AND YOUR RELATIONSHIP TO THE ORGANIZATION.

PULP is a New York not-for-profit corporation that was formed in 1981. Its primary focus is to promote and defend the legal rights of residential utility consumers by educating the public, regulators and elected officials about the impacts of utility rates; conducting research on the rights and energy burden of utility consumers; and, advocating with an emphasis on the rights and needs of low-income utility consumers. I have been employed by PULP in various capacities since July 1990. I am currently Director of Research for PULP.

Q. WHAT ARE YOUR EDUCATIONAL BACKGROUND, YOUR PROFESSIONAL QUALIFICATIONS, AND EMPLOYMENT HISTORY?

I am a graduate of Colgate University (B.A. in History, 1982) and a graduate of the New York University Stern School of Business Administration (M.S. in Accounting, 1982). I am a Certified Public Accountant (CPA), licensed to practice in New York State since 1987, and I am a member of the American Institute of Certified Public Accountants (AICPA).

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE NEW YORK STATE PUBLIC SERVICE COMMISSION?

A. Yes, I have provided testimony on behalf of PULP in prior rate proceedings including Cases 12-E-0201, 12-G-0202, 13-E-0030, 13-G-0031, 16-G-0058 and 16-G-0059, and 16-E-0060 and 16-G-0061. In 12-E-0021 and 12-E-0202, I testified regarding the experience of utility customers of Niagara Mohawk who enter into contracts for "commodity" (or "supply") with energy service companies ("ESCOs"). In 13-E-0030 and 13-G-0031, I testified regarding the Joint Proposal's low-income assistance changes, and data reflected in Collection Activity Reports filed monthly by Con Edison concerning its residential customers with arrears who are at risk of actual or threatened interruption of utility service. In Cases 16-G-0058 and 16-G-0059, I testified regarding affordability issues in the KEDNY and KEDLI service areas of National Grid in the rate cases filed on January 29,

2016. In Cases 16-E-0060 and 16-G-0061, I testified regarding affordability issues in the Con Edison service area in the rate cases filed on January 29, 2016.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. My testimony presents evidence regarding the difficulties a large number of the Company's low-income customers are having paying their utility bills. I provide analyses of data pertinent to this issue, discuss the relevant Company programs and its recommendations in this case, and discuss and provide recommendations regarding alternate rate designs that would reverse regressive impacts upon low-income and low-usage (i.e., "green") households, and would incentivize excessive energy users to conserve.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring six exhibits. Exhibit ___ (WDY-01) consists of 6 pages of data from the Company's Low Income Program Annual Reports. Exhibit ___ (WDY-03) consists of 8 pages of Company IR responses to Staff.[1] Exhibit ___ (WDY-04) consists of 14 pages of data from the U.S. Census Bureau's American Community Survey. Exhibit ___ (WDY-05) presents the Company's response to information request UIU-3 and comprises 2 pages. Exhibit ___ (WDY-06) consists of 63 pages of data from the OTDA website. Exhibit ___

[1] Exhibit_(WDY-02) intentionally omitted.

(WDY-07) consists of 4 pages of analysis based on data in the Company's Bill Frequency Report (Filing Letter, Attachment B, Page 1).

Q. PLEASE PROVIDE A BRIEF OVERVIEW OF THE SOURCES YOU REVIEWED THAT LED YOU TO MAKE YOUR FINDINGS AND FORM YOUR RECOMMENDATIONS.

A. As discussed in more detail in the remainder of my testimony, I reviewed information from several sources that provided evidence that a significant, rising majority of the Company's low income customers (households with less than $35,000 of income annually) cannot afford their utility bills. Using these sources, I analyzed indicia of current unaffordability in the Company's service area, and factors that would tend to increase such unaffordability over time, such as:

- Persistently oppressive Housing-Cost Burdens among low income households,
- The absence of any proposal to increase low income discounts during the pendency of the Company's Petition for Rehearing / Reconsideration / Clarification in Case 14-M-0565, *Proceeding on Motion of the Commission to Examine Programs to Address Energy Affordability for Low Income Utility Customers* (the Low Income Order Petition),
- The inclusion of master metered two-to-four family dwellings (Master Metered Residential Customers) and an increasing number of high usage, non-residential

customers (SC1 Non-Residential Customers) in the residential class of service, the presence of whom impedes the ability of the class to be representative of a homogenous group of residential customers for which rates can be properly designed that are just and reasonable, and

- Rate designs that feature high fixed basic costs of service (Basic Service Charges) and declining block rates for gas delivery service.

Q. WHAT ARE YOUR RECOMMENDATIONS REGARDING THE AFFORDABILITY PROBLEMS FACED BY THE COMPANY'S LOW INCOME CUSTOMERS?

A. Based on the findings I discuss throughout my testimony; I recommend three actions that should be taken to reduce the affordability problems of many of the Company's customers. In the context of this rate case, the Company should agree, or the Commission should require the Company to:

1) Adopt the eight-month discount for HEAP recipient customers as originally proposed in Company's Customer Service Panel testimony, should the Company's Low Income Order Petition not be answered by the effective date of the order in this proceeding,

2) Create one or more new service classes for the accounts of master metered two-to-four family dwellings (Master Metered Residential Customers) and those non-residential customers currently included in Service Class 1 (SC1 Non-Residential Customers).

Consider whether it is appropriate to mix these two types of customers in the same class. If not, create separate classes for each, and

3) Establish a multi-party working group to study and prepare a report upon the advisability of having the Company adopt alternative residential class rate designs (Green Rate Designs), the purpose of which would be to achieve greater affordability for all average and lower usage customers, including low income customers, through the implementation of rate designs that incentivize energy conservation and efficiency in support of New York State's declared goal of reducing greenhouse gas (GHG) emissions 40% by 2030 and 80% by 2050. Integral to any new rate design strategy would be a plan to draw upon the Company's demonstrated expertise in energy conservation and efficiency assistance, and proactive engagement with customers experiencing payment problems, including the needs of those of its low income customers whose usage is above average. For example, the Company has pioneered an innovative program to increase the percent of its customers in arrears that negotiate and execute deferred payment agreements (DPAs) on their past-due balances through the use of electronically signed DPAs (e-DPAs), and the Company has effectively used its Low Income Usage Reduction Program (LIURP) to assist its low income customers whose usage is above average. While these efforts are helping to mitigate the unaffordability crises to an extent, programmatic activities do not and cannot replace what comprehensive rate design could achieve in terms of preventing cost shifts and keeping price impacts to a minimum.

II. UNAFFORDABILITY AND THE COMPANY'S LOW INCOME CUSTOMERS

Q. ARE THE COMPANY'S LOW INCOME CUSTOMERS HAVING DIFFICULTY PAYING THEIR BILLS?

A. Yes. There are numerous indicators of long term and increasing unaffordability among the Company's customers whose households receive less than $35,000, which are discernible from the

- United States Census Bureau's American Community Survey (ACS) data on the burden of increasing housing costs, including utilities, upon households in the Company's service area whose annual income is less than $35,000, and
- Discovery responses obtained by PULP, New York State Department of Public Service (Staff), and the Utility Intervention Unit of the New York State Department of State (UIU), and the
- Low Income Customer Affordability Assistance Program (LICAAP) and HEAP Residential Assistance Service (HRAS) Program reports (collectively, Low Income Program Reports) filed by the Company with the Commission.

In the remainder of my testimony, I will utilize the above evidence to support my finding that utilities are unaffordable for the Company's low income customers, a situation that must be addressed in this rate case proceeding.

A. ECONOMIC FACTORS

1. Persistently Oppressive Housing-Cost Burdens among Low Income Households

Q. WHAT ECONOMIC FACTORS DID YOU DISCOVER THAT ARE CAUSING THE COMPANY'S LOW INCOME CUSTOMERS TO HAVE DIFFICULTY PAYING THEIR UTILITY BILLS?

A. In the counties served by the Company, the most significant economic factor causing low income customers to have trouble paying their bills is that a large, persistent, and increasing majority of households with income less than $35,000 are spending at least thirty percent (30%) of their income on housing costs, which include utility costs. Further, a significant minority (36%) are spending at least 50% of their incomes on housing costs. The U.S. Census Bureau refers to "at least 30% of income on housing costs" as the "Housing Cost Burden"; 30 percent being the maximum amount that a household can devote to housing costs before the household is considered to be "burdened." Most average-size households in the Company's service area (approximately 2.6 persons) with incomes less than $35,000 that experience such a Housing Burden qualify for income-based assistance programs such as HEAP or Food Stamps, based on the eligibility guidelines of those programs. They are also very likely to comprise the majority of customers enrolled in one or more of the Company's low income assistance programs (Exhibit ___WDY-04, Pages 1-14).

In response to Information Request (I/R) UIU-3 (Exhibit ___WDY-05), requesting the Company to provide the number of low income residential heating and non-heating customers in the Company's service territory who are currently enrolled in the low income discount program, the Company provided the following table:

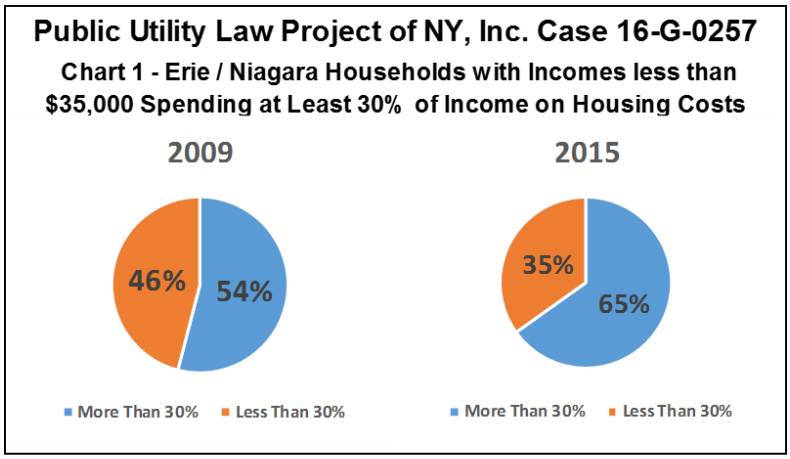
National Fuel Gas Distribution Corporation
New York Division
Low Income Discount Customers by County

County	Total	Heating	Non-Heating
ALLEGANY	2,016	2,009	7
CATTARAUGUS	2,415	2,411	4
CHAUTAUQUA	8,095	8,064	31
ERIE	63,811	63,704	107
GENESEE	1,403	1,400	3
LIVINGSTON	65	65	0
MONROE	55	55	0
NIAGARA	8,362	8,348	14
ONTARIO	212	211	1
STEUBEN	1,373	1,370	3
WYOMING	574	571	3
TOTAL	**88,381**	**88,208**	**173**

Source: Company Response to I/R UIU-3

As explained in Chart 1 below, the Housing Cost Burden on low income households in the Company's service area increased between 2009 and 2014. Additionally, in the two counties comprising 80% of the enrolled customers in the Company's low income discount program (Erie and Niagara), 54% of low income households experienced a Housing Cost

Burden in 2009. By 2014, the Housing Cost Burden of low income households in these counties had jumped to 65% (Exhibit ___WDY-04, Pages 1-14).



Source, United States Census Bureau, American Community Survey - 2009, 2014

A more detailed look at this situation is presented in Table 1 below, which breaks down the increase in the low income Housing Cost Burden from 2009 – 2014 by county, and among renters and homeowners:

Public Utility Law Project of New York, Inc. - Case 16-G-0257 (National Fuel Gas)

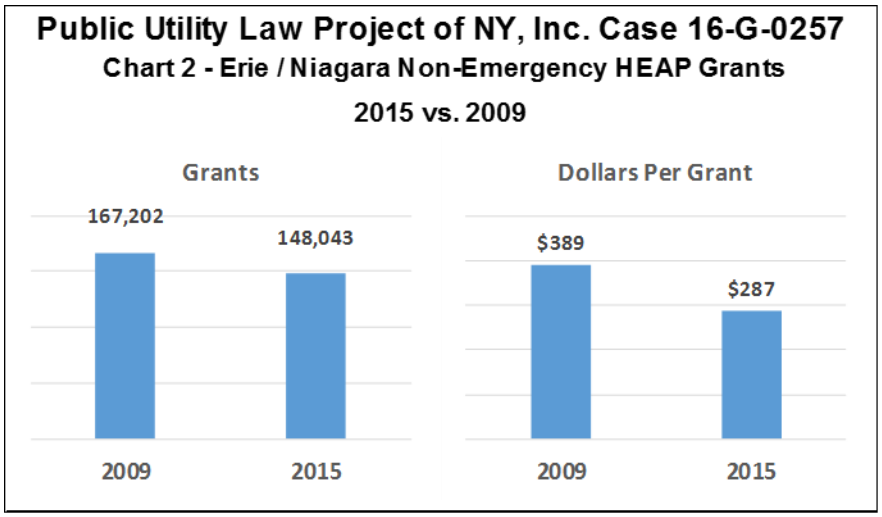
Table 1 - Percent of Erie / Niagara County Households with Incomes Less Than $35,000 Spending at Least 30% of Income on Housing Costs Including Utitlties, 2009 - 2014

Description	Year	Erie County			Niagara County			Total		
		Renters	Owners	Total	Renters	Owners	Total	Renters	Owners	Total
Number of Households with Income Less Than $35,000	2009	82,357	64,309	146,666	17,252	16,890	34,142	99,609	81,199	180,808
	2014	79,638	56,868	136,506	16,976	15,594	32,570	96,614	72,462	169,076
Spend 30% or More on Housing Costs Including Utilities	2009	66.5%	33.8%	52.2%	64.5%	59.5%	62.0%	66.2%	39.1%	54.0%
	2014	72.1%	57.0%	65.8%	67.9%	56.2%	65.0%	71.3%	56.9%	65.1%
Spend 50% or More on Housing Costs Including Utilities	2014	42.9%	29.3%	37.2%	37.7%	27.6%	32.9%	42.0%	28.9%	36.4%

Source, United States Census Bureau, American Community Survey - 2009, 2014

Table 1 also reflects a new measure of low income Housing Cost Burden that the Census Bureau began reporting in 2014: households experiencing a Housing Cost Burden of at least 50%; that is, spending at least 50% of income on housing costs including utilities. In 2014, 36% of low income households in Erie and Niagara counties reported a Housing Cost Burden of at least 50% of income (Exhibit ___WDY-04, Pages 1-14).

A contributing factor to the increased Housing Cost Burden of the Company's low income customers from 2009 to 2014, specifically tied to utilities, was the sharp reduction in the number and average dollar amount of HEAP grants – funds that low income customers use to pay their heating bills. Chart 2 shows just how steep the cutbacks in HEAP have been for the Company's low income customers in Erie and Niagara Counties (Exhibit ___WDY-06, Pages 26, 58):



Source, New York State Office Office of Temporary & Disability Assistance, Case Load Statistics, September 2009, 2015.

With Housing Cost Burdens rising and the level of HEAP funding available to low income households in Erie and Niagara counties sharply reduced, it is not surprising that more of the Company's low income customers are struggling to pay their utility bills. This becomes apparent upon a review of the Company's Low Income Program Reports. From 2011 through 2015, the percent of customers participating in the LICAAP program whose accounts were in arrears rose from 39% to 49% (Exhibit ___WDY-01, Pages 2, 4). The result is that almost half of LICAAP customers can't keep up with their utility bills, despite the assistance provided by the program.

B. UTILITY-SPECIFIC FACTORS AND RECOMMENDATIONS

Q. WHAT ARE SOME OF THE UTILITY-SPECIFIC FACTORS CONTRIBUTING TO THE DIFFICULTY THE COMPANY'S LOW INCOME CUSTOMERS ARE HAVING PAYING THEIR BILLS?

A. In this testimony I focus on four factors specific to the Company that currently contribute, or will be contributing to the unaffordability crisis in the Company's service territory:

1. The absence of any proposal by the Company to increase low income discounts during the pendency of the Company's Low Income Order Petition,

2. The inclusion of master metered two-to-four family dwellings (Master Metered Residential Customers) into the SC1 class of service,
3. The increasing number of high usage, non-residential customers (SC1 Non-Residential Customers) in the residential class of service, and
4. Rate designs that feature high fixed basic costs of service (Basis Service Charges) and declining block rates for gas delivery service.

1. No Increase in Low-Income Discounts Proposed

Q. PLEASE DESCRIBE THE ABSENCE OF ANY PROPOSAL TO INCREASE LOW INCOME DISCOUNTS DURING THE PENDENCY OF THE COMPANY'S THE LOW INCOME ORDER PETITION.

A. In its supplemental testimony, the Low Income Order Panel indicated that, during the pendency of its Low Income Order Petition, the Company would not follow through with the Company's original proposal set forth in the Customer Service Panel's testimony to extend the annual period of the HRAS low income discount to eight months from five months. (Low Income Order Panel Testimony at 8) The effect of failing to execute the Company's proposal of extending the HRAS discount on typical low income customers with average usage would be to more than double the proposed increase in their monthly total bill, from the 3.2% calculated in the Comparison of Monthly Bills for the HRAS class,

to 7.0%. (Company Response to DPS-33, JRB-1 Revenue Exhibits.xlsx, "Tabulation" tab; Exhibit_WDY-03, Page 1, Residential-SC1, Page 2, HRAS-SC2).

This change, which may not be recognized by all of the parties in this proceeding because the Comparison of Monthly Bills schedules have not been updated since the filing of the Company's supplemental Low Income Panel testimony, would harm low income customers - the very segment the Low Income Order was intended to assist, and who are already having the most difficulty paying their utility bills.

Q. WHAT ACTION DO YOU RECOMMEND SHOULD BE TAKEN TO ADDRESS THIS SITUATION?

A. In the unlikely event that the Commission does not answer the Company's Low Income Order Petition, the Company's original proposal to adopt an eight-month discount period for HRAS customers should be adopted. In the alternative, rates for customers in the HRAS, LICAAP and any other low income programs should be frozen until the low income order is clarified.

2. Inclusion of master metered two-to-four family dwellings into the SC1 class of service

Q. TO WHOM DOES THE SERVICE CLASS NO.1 (SC1, RESIDENTIAL) APPLY.

A. The Company's tariff for Service Class No. 1 (SC1, Residential) states that this class of service is applicable for:

> *"Any use of gas where consumption is less than 25,000,000 cubic feet per year for residential purposes in a one-family, two-family, three-family, or four-family dwelling, whether such service is individually or master metered, and in separately metered apartments in all other multiple-family dwellings. Where gas used for non-residential and residential purposes is not separately metered, this Service Classification shall apply if more than 50% of the cubical content of the pertinent structure is used for residential purposes.*
>
> *Also for all gas utilized exclusively in connection with any post or hall owned or leased by a not-for-profit corporation that is a veterans' organization; for religious purposes by any corporation or association organized and conducted in good faith for religious purposes; and for community residences as defined in subdivision twenty-eight, twenty-eight-a or twenty-eight-b of Section 1.03 of the Mental Hygiene Law, provided, however, that such community residence shall be operated by a not-for profit corporation and if supervisory staff is on*

site on a twenty-four hour per day basis, that the residence provides living accommodations for fourteen or fewer residents."

(Tariff at Leaf 149)

Q. WHAT ARE THE EFFECTS OF THE INCLUSION OF MASTER METERED TWO-TO-FOUR FAMILY DWELLINGS (MASTER METERED RESIDENTIAL CUSTOMERS) AND AN INCREASING NUMBER OF HIGH USAGE, NON-RESIDENTIAL CUSTOMERS (SC1 NON-RESIDENTIAL CUSTOMERS) IN THE RESIDENTIAL CLASS OF SERVICE.

A. SC1, the residential class of service, has traditionally included both individually metered dwellings - such as single family homes, and individually metered apartments and multi-family dwellings. The class has also included customers that are served by master meters in two-to-four family dwellings. Historically, in terms of the *purpose* of the gas service being delivered – to provide heating and non-heating gas for one's home - it has been perfectly logical to include master metered two-to-four family dwellings in SC1. However, *designing rates* for both directly metered and master metered customers within the same class is problematic: the two types of meters measure gas usage that is not comparable. A customer who is the landlord of a multi-family dwelling served by one (master) meter will pay the same $15.54 monthly basic service charge as a homeowner in a directly metered single-family dwelling (Company Tariff at Leaf 149). Further, since the

number of households in a multi-family dwelling is, by definition, greater than one, the average usage reflected by a master meter is likely to be much higher than the average usage reflected by an individual meter. Table 2 below shows the difference between the monthly delivery charges for an individually metered single family residence and a master metered multi-family dwelling with four households – all of whom consume the same volume of gas monthly:

Public Utility Law Project of New York, Inc. - Case #16-G-0257 (National Fuel Gas)

Table 2 - Average Monthly Delivery Charge Compariosn - Single Family Direct vs. Multi Family Master Metering

A	B	C	D	E	F	G	H	I	J	K
			Monthly Usage (Ccf)		Ccf Block			Total Delivery Charges Per:		
Dwelling	Meter			Per	4	50	Over 50			
Type	Type	Households	Total	Household	$15.54000	$0.37255	$0.10081	Customer	Household	
				(D / C)	**(Note 1)**	**(Note 2)**	**(Note 3)**	**(F + G + H)**	**(I / C)**	
Single Family	Direct	1	89.8	89.8	$15.54	$17.14	$4.02	$36.69	$36.69	
Multi-family	Master	4	359.3	89.8	$15.54	$17.14	$31.18	$63.86	$15.97	**(Note 4)**

Notes

1. The first block of gas is the basic service charge of $15.54, which includes up to 4 Ccf of gas.
2. The second block of gas is priced at $0.37255 per Ccf for up to 46 Ccf.
3. The third (tail) block of gas is priced at $0.10081 per Ccf for all usage over 50 Ccf (4 + 46).
4. In the case of the master metered multi-family dwelling, the individual household is not billed by NFG; the cost of gas service may be included in rent, passed through separately by the landlord, or sub-metered.

Source: Company Tariff at Leaf 149.

As shown in column I, the single family customer who is individually metered incurs monthly delivery charges of $36.69; while the four households occupying the multi-family master metered dwelling each would pay only $15.97 a month (assuming the cost of delivery was passed through by the landlord equally to each tenant). Yet, as shown in column D, all five households in Table 2 (1 single family plus 4 tenants in the multi-family dwelling) consume the same quantity of gas monthly: 89.8 Mcf. Why are single family customers paying more than double for consuming the same amount of gas as tenants in a

multi-family dwelling? The answer lies in the way the two dwellings are metered for gas service: the single family dwelling is served by a meter that calculates one household's gas usage (89.8 Ccf); while the multi-family dwelling is served by one meter that calculates a single total usage amount (359.3 Ccf) for all four households. Meanwhile, the same usage block design and rates are used for both the single family dwelling customer and the landlord of the multi-family dwelling. As a result, the total usage of the individual tenants in the multi-family dwelling is combined (89.8 * 4 Ccf), and the majority of landlord's gas delivery will be priced in the "tail" or last block of energy at $0.10081 per Mcf because all usage over 50 Ccf is priced at that rate. Additionally, the landlord of the multi-family dwelling will pay only one basic service charge for the four tenants. However, the single family dwelling customer's usage will be paid for by that customer alone, and the majority of this customer's bill is priced in the higher cost blocks of energy.

The bottom line is that as explained in Table 2, mixing customers of different meter types makes it nearly impossible to analyze the overall usage characteristics of households in the residential class, and results in disparate utility costs across the residential class based solely on the type of dwelling they live in.

Q. IS THE MIXING OF INDIVIDUALLY AND MASTER METERED CUSTOMERS IN SC1 CONSISTENT WITH STATE POLICY?

A. No. As understandable as this practice has been traditionally, two recent State policy imperatives that require consideration of alternative rate designs are being impeded by the mix of individually and master metered customers in SC1. The first is the need to implement the Commission's May 19, 2016 *Order Adopting Low Income Program Modifications and Directing Utility Filings* in Case 14-M-0565 (the Low Income Order). As the Low Income Order Panel points out in testimony, the Company's increased revenue requirement resulting from the Low Income Order is either $2.8 million or $3.9 million, depending upon the Commission's answer to the Company's Low Income Order Petition. (Low Income Order Panel testimony at 4 – 5). The mix of individually and master metered customers in SC1 hinders the implementation of alternative rate design strategies that could help the Company provide the additional level of benefits for low income customers required by the Low Income Order.

The second policy imperative being impeded by the mix of individually and master metered customers in SC1 is that of the State's "Clean Energy Goals" of reducing greenhouse gas (GHG) emissions by 40% from 1990 levels by 2030, and 80% by 2050 (2015 New York State Energy Plan Overview at 2), the gas utility implementation aspect of which was contemplated in the Commission's Order Adopting Regulatory Policy Framework and Implementation Plan (the Track One Order) in Case 14-M-0101 (the REV Proceeding):

> *"Utility programs should also become more oriented toward demand reduction. Efficiency measures that produce demand reduction less expensive than equivalent capacity purchases should be pursued where possible.* ***We note here that although REV concentrates on the electric industry, it is our expectation that utilities also continue and evolve their gas energy efficiency efforts.*** *"*
>
> (Track One Order at 79, **emphasis added**)

The mix of individually and master metered customers in SC1 hinders the implementation of alternative rate design strategies that could help achieve gas emission reduction consistent with the Clean Energy Goals of the State Energy Plan and contemplated by the REV proceeding's Track One Order. Because of the inherent non-homogeneity of the members of the SC 1 class, new rate design strategies would be highly problematic. For example, the adoption of inclining block rates for SC1 would unduly harm those class members who were served by a master meter, since at very low levels of their own *household* usage they would likely be charged much higher volumetric delivery rates than they currently experience. Conversely, the opposite is now experienced by individually metered low usage members of SC1 (many of whom are low income customers) because they are unfairly penalized based on how metering is billed for their dwelling type while non low income SC1 customers occupying residences served by master meters in multi-family dwellings might easily pay less than half the delivery charges for the same overall usage in the dwelling.

3. Increasing number of high usage, non-residential customers in the residential class of service

Q. WHAT ARE THE EFFECTS OF THE INCREASING NUMBER OF HIGH USAGE, NON-RESIDENTIAL CUSTOMERS (SC1 NON-RESIDENTIAL CUSTOMERS) IN THE RESIDENTIAL CLASS OF SERVICE?

A. In Case 07-G-0141, changes in rate design that, among other things, lowered the tail block delivery rate for SC1 significantly below the second block rate in SC3, incentivized many religious and not-for-profit customers who had been eligible for service under SC1, but historically obtained their service under Service Class No 3 (SC3, General) to switch to SC1. (Direct Testimony of Thomas J. Clark, Case 07-G-0141 at 26-29). Since 2007, the result has been that SC1 customers whose annual usage is greater than 1,000 Mcf has increased from 0 to 2,021 customers. By 2015, non-residential customers obtaining service in SC1 likely consumed at least 8.6% of the energy delivered under SC1, although they only comprised .5% of SC1 customers in 2015. (Filing Letter at 14)

Q. WHY IS THE MIGRATION OF ELIGIBLE NON-RESIDENTIAL CUSTOMERS FROM SC3 TO SC1 IMPORTANT?

A. The purpose of my testimony is not to determine whether eligible non-residential customers migrating from SC3 to SC1 are achieving a "windfall" at the expense of other ratepayers. Rather, it is to bring to light an important consequence of mixing an increasing

percentage of non-residential customers with traditional residential customers under the SC1 classification. If mixing master metered with individually metered customers complicates any future effort to redesign SC1 rates, mixing in non-residential customers on top of that makes SC1 rate re-design virtually impossible. Imagine the example in which inclining block rates were adopted: such a re-design would be disastrous for SC1 non-residential customers – not because they are inherent wasters of energy, but because they are in the wrong class. Conversely, traditional residential customers could realize substantial savings if they responded to a new inclining block rate design by further reducing energy usage. It should therefore be evident that, at least in the long run, a growing mix of residential and non-residential customers within the SC1 class is not likely to be compatible with efforts to update rate designs that are logical, just and reasonable for all the members of the SC1 class.

Q. WHAT ACTION DO YOU RECOMMEND SHOULD BE TAKEN TO ADDRESS THIS SITUATION?

A. I recommend creating one or more new service classes for master metered two-to-four family dwellings and (current) SC1 non-residential customers. Consideration should be given as to whether it is appropriate to mix these two types of customers in the same class. If not, separate classes should be created: one for master metered two-to-four family dwellings; the other for (current) SC1 non-residential customers.

4. Rate Design

Q. PLEASE DISCUSS THE PROBLEM OF RATE DESIGNS THAT FEATURE HIGH FIXED BASIC COSTS OF SERVICE (BASIS SERVICE CHARGES) AND DECLINING BLOCK RATES FOR GAS DELIVERY SERVICE.

A. The Company's rate designs feature high fixed costs of basic service and declining block rates for delivery service.

(i). High Fixed Costs of Basic Service.

The Company's monthly fixed charge for basic service (known officially as the "monthly minimum charge") is currently $15.54, which in its filing in this proceeding the Company proposes to raise to $19.66, representing a 27% increase. (Exhibit ___WDY-03, Page 1). If granted, basic service charges would comprise 20% of the typical bill for customers at a monthly usage level of 100 Ccf, up from 17% currently. (Exhibit ___WDY-03, Page 1)

(ii). Declining Block Rates.

The Company's volumetric charges for delivery vary with the amount of gas a customer consumes. The volumetric charge is significantly lower (73%) for all monthly usage over 50 cubic square feet of gas (Ccf) than it is for the first 50 Ccf. This design sends customers the "price signal" that the cost of delivery declines as more gas is used, and thus arguably incentivizes higher usage rather than conservation. According to the United States Environmental Protection Agency (EPA):

"Some rate designs, such as declining block rates and bill adders, send price signals that mask the true cost of incremental units of energy and thus can encourage more rather than less energy consumption."[2]

It is also well established that rate designs based on high fixed basic service charges and flat and declining block rates for delivery service create affordability problems for low income customers, and act as a disincentive to conservation and energy efficiency initiatives.[3]

Q. IS THERE A SPECIFIC PROBLEM CREATED FOR LOW-INCOME CONSUMERS BY THE COMPANY's PROPOSED RATE DESIGN?

A. Yes. The specific problem with the Company's rate design that its low income customers face in this proceeding is that they will have little opportunity to mitigate the cost of the proposed increase in volumetric delivery rates and no opportunity to avoid the cost of increased basic service charges. Consider the example of a low income customer whose monthly usage is 89.8 Ccf of gas. As the previous example in Table 2 makes clear, that customer would have to reduce monthly consumption by 39.8 Ccf (44%) before reaching the highest volumetrically-priced block of gas; the "penultimate", or second-to-

[2] National Action Plan for Energy Efficiency (2009). *Customer Incentives for Energy Efficiency Through Electric and Natural Gas Rate Design*. Prepared by William Prindle, ICF International, Inc. www.epa.gov/eeactionplan.
[3] National Consumer Law Center, *Utility Rate Design: High Utility Fixed Charges Harm Low Income, Elders and Households of Color*, av'l here: http://www.nclc.org/energy-utilities-communications/utility-rate-design.html.

last block at $0.37255 per Ccf. Worse, they would have no ability to use conservation measures to mitigate the proposed 27% increase in fixed cost of basic service.

The unresponsiveness to conservation and efficiency measures embedded in the Company's high fixed cost of basic service / declining block rate design, as proposed in the Company's filing in this proceeding (Exhibit__(COSRD-11) Schedule 1 Page 1 of 10) is illustrated in Table 3:

Public Utility Law Project of New York, Inc. - Case #16-G-0257 (National Fuel Gas)

Table 3 - Savings? Reduced Consumption vs. Total Delivery Charges at Proposed Rates

A	B	C	D	E	F	G
Monthly Usage (Ccf)		Ccf Block			Total Delivery Charges	
		4	50	Over 50	Amount	Percent
(Ccf)	Reduction	$19.66000	$0.38845	$0.11671		Savings
		(Note 1)	**(Note 2)**	**(Note 3)**	**(C+D+E)**	**(Note 4)**
89.8	0%	$19.66	$17.87	$4.64	$42.17	0.0%
80.8	-10%	$19.66	$17.87	$3.60	$41.13	2.5%
71.8	-20%	$19.66	$17.87	$2.55	$40.08	5.0%
62.9	-30%	$19.66	$17.87	$1.50	$39.03	7.5%
53.9	-40%	$19.66	$17.87	$0.45	$37.98	9.9%
44.9	-50%	$19.66	$15.89	$0.00	$35.55	15.7%

Notes

1. The first block of gas is the basic service charge of $19.96, which includes up to 4 Ccf of gas.
2. The second block of gas is priced at $0.388449 per Ccf for up to 46 Ccf.
3. The third (tail) block of gas is priced at $0.116708 per Ccf for all usage over 50 Ccf (4 + 46).
4. Savings calculated by subtracting total delivery charges at reduced consumption from total delivery charges at 89.8 Ccf.

Source: Exhibit__(COSRD-11) Schedule 1 Page 1 of 10

Plainly, high fixed costs of basic service combined with the steeply declining block rates for delivery proposed by the Company would make it extremely difficult for conservation-

minded customers to achieve meaningful savings on their delivery charges. Such customers would be required to reduce monthly consumption by over forty percent (40%) just to achieve a ten percent (10%) reduction of their delivery charges. On top of that, any investment that a customer might make in energy efficiency measures automatically incurs a significantly higher payback period than would be the case under a rate design that sent price signals that truly encouraged conservation and energy efficiency.

Q. DO THE COMPANY'S PROPOSED RATE DESIGN AND BASIC SERVICE CHARGE INCREASE HAVE DISPROPORTIONATE NEGATIVE EFFECTS UPON LOW INCOME CUSTOMERS?

A. Yes. The stakes for the Company's low income customers in this regard are very high. As already described, by the Company's count there are at least 88,208 low income customers served in the eleven counties of its service territory (Company response to UIU-3). For low income households – those with less than $35,000 of income – the 30% Housing Cost Burden has increased from 54% to 65% (Chart 1). Fully 36% of low income households in the Company's service area spend at least 50% of their income on housing costs (Table 1). With such high percentages of Housing Cost Burden it's almost certain that they would be disproportionately harmed by the rate increases proposed in this case. The magnitude of the increase is bad enough; worse is that high fixed costs of basic service

and declining block rates make it nearly impossible to use conservation or energy efficiency measures to reduce delivery charges.

Q. WHAT ACTION DO YOU RECOMMEND SHOULD BE TAKEN TO ADDRESS THIS SITUATION?

A. Recognizing that current rate designs have been in place for decades, and that I and other non-Company parties lack much of the information needed to make fully informed recommendations, I recommend that a multi-party working group be established in the context of this rate proceeding to consider the advisability of having the Company adopt alternative residential class rate designs (Green Rate Designs), the purpose of which would be to achieve greater affordability for all average and lower usage customers, including low income customers, through the implementation of designs that incentivize energy conservation and efficiency and support New York State's declared goal of reducing greenhouse gas (GHG) emissions 40% by 2030 and 80% by 2050.

In the following two examples (Exhibit ___WDY-07) I present alternative rate designs based on inclining block rates. My intent is to illustrate how rates could be re-designed to:

1) Help solve the revenue requirement problem the Company faces in implementing the Low Income Order, and
2) Encourage energy conservation and efficiency which would in turn help achieve the State's GHG reduction objectives for 2030 and 2050.

The first example keeps the monthly basic service charge at $15.54; the second lowers the basic service charge to $10.00, in order to achieve greater alignment between the Company's rate design(s) and the State's goal of achieving a maximum energy burden of 6% of income for low-income customers. The Company's revenue de-coupling mechanism (RDM) is also considered as it could act as a potential offset to the savings that would be achieved by lower usage customers due to the price signals sent to all (especially higher usage) customers to conserve energy.

In both examples, I also make the following assumptions:

1. All SC1 customers with usage levels above 500 Mcf of annual consumption, most-if-not-all of whom are not directly metered single household residential customers, are transferred to another class of service.
2. Though the SC1 class includes master metered customers, none are considered as I was unable to find information in the Company's filing in this proceeding to account for these customers. I have submitted follow up I/Rs to the Company which may shed some light on how these customers can be identified. However, it is clear that this is one way in which a collaborative effort as described above would help provide the further information needed to determine the usefulness of exploring alternative rate designs.

I used the above assumptions and the Company's Bill Frequency Report of SC1 customers with twelve months of billing as included with its filing letter in this proceeding (Filing

Letter, Attachment B, Page 1) to test both examples of inclining block rates. Exhibit ___WDY-07, Page 1 re-creates the Bill Frequency Report and adds a column calculating monthly Ccf block. Exhibit ___WDY-07, Page 2 calculates the monthly and annual delivery revenues that would be generated by current rates under the current rate design for the customers included on the Bill Frequency Report. Exhibit ___WDY-07, Page 3 re-calculates delivery revenues retaining the current basic service charge of $15.54, but changes the second block rate to $0.10081 per Ccf (the current tail block rate). In this exhibit I also add an additional third (new penultimate) block, the rate of which is set to $0.37255, the existing second (current penultimate) block rate. Finally, I set the tail block rate to $0.54765, 147% of the current penultimate block.

As can be seen from Exhibit ___WDY-07, Page 3, all customers whose annual usage is at or below 120.9 Mcf (monthly usage of 100.8 Ccf) experience lower delivery charges under the alternative rate structure. Importantly, 120.9 Mcf of usage is within the Bill Frequency Report's 100 – 150 block of usage, which, cumulatively, includes 334,414 out of 394,444 (about 85%) of customers on the Bill Frequency Report. Given, however, that the average usage of customers in this block is 120.9 Mcf, I estimate that roughly 40% of the customers in the block experience lower total annual delivery charges under the alternative rate design of this example, which leads me to estimate that about 258,313 out of 394,444 (about 65%) of the customers on the report would experience annual delivery rates lower than those they experience under the current rate design.

Other results from the re-design under this alternative include:

1. The revenue requirement for the class is achieved – at least as reflected by the billing of customers included on the Bill Frequency Report (total delivery revenue = $169,217,219 versus $169,153,115 for the current rate design).

2. The annual savings to the 65% of customers who average less than 120.9 Mcf of consumption is $20,007,605 – approximately 15% less than they pay under the current rate design.

3. The annual percentage savings for the usage block comprising the largest number of the Company's residential customers (169,229 or 43% of the report total) is far higher: 25%. It is likely therefore that the savings of the median number of customers (50% or 197,222) is comparable.

4. Crucially, to the extent that low income customers would experience savings under this alternative due to consumption below 120.9 Mcf, they would experience rate relief that could serve to reduce the revenue required to provide them discounts under the Low Income Order's requirements. In fact, depending upon the forthcoming Commission ruling on the Company's Low Income Order Petition, the net savings to low income customers under this rate design could exceed the Company's estimate of the revenue required to implement the Low Income Order: $3,334,467 (versus the Low Income

Order's funding cap based on 2% of sales, which would equal $2,768,308). The net savings due to rate re-design in this first example would also equal about 85% of the Company's higher estimate of the revenue required to implement the Low Income Order: $3,334,467 (versus the Low Income Order's funding cap based on 6% of energy burden, which would equal $3,919,464).

5. The delivery revenue necessary in this example to generate savings to customers with annual usage of less than 120.9 Mcf is entirely made up by charging higher volumetric rates to high usage customers. Which is consistent with the State's goal to promote conservation and reduce demand. To reiterate, however, substantially all high usage, non-residential customers are assumed to have been transferred to another class of service for the purposes of this example. Some of the remaining customers in this experimental SC1 block whose usage is above 120.9 Mcf are likely to be master metered two-to-four family dwellings that would also need to be excluded from SC1 in a fuller study of this subject, and thus the revenue generated by higher volumetric charges to high usage customers is likely to be less than $3,334,467. However, it is still reasonable to assume a substantial contribution to rate relief for low income customers, and therefore a reduction in the revenue requirement that would need to be generated to carry out the Low Income Order could be made by this rate re-design.

6. If re-designing rates using inclining block rates is to achieve the two policy objectives I have set forth; that is, both savings to low usage (including low income) customers and the fostering of energy conservation and efficiency by high usage customers responding to the price signals sent by higher volumetric tail rates, then it must be assumed that such customers will, in some measure, respond in ways that reduce their consumption. In this regard, it is critical to understand how the Company's revenue decoupling mechanism, or RDM, could impact the assumed outcomes of redesigning rates under this alternative. Through the RDM, the Company is provided a mechanism that ensures it will achieve its authorized revenue requirement (in this example, the total revenue under the existing rate design - $169,153,115). The Company's RDM is designed so that any shortfalls in a class's revenue requirement are charged at the tail block rate. Under this alternative, the tail block has the highest rate: $0.54765. Therefore, every Ccf of revenue requirement shortfall will be added to customer bills at that highest rate. Obviously, the risk is that some of the savings realized by customers under the alternative set forth in this example could be offset, perhaps materially, by RDM adjustments that make up the revenue the Company lost because customers responded to higher volumetric tail rates by reducing consumption. Herein lies another aspect of this topic that requires further information and study by a larger, preferably collaborative, group.

Example 2 (Exhibit ___WDY-07, Page 4) differs from the Example 1 (Exhibit ___WDY-07, Page 3) in that the monthly fixed cost of basic service is reduced to $10.00. To achieve the revenue requirement under such a scenario, the penultimate (third) block rate is increased to $0.54020, 147% of the current penultimate (second) block rate of $0.37255. The tail block is raised to $0.63334, 170% of the current penultimate block rate.

Once again, all customers whose annual usage is at or below 120.9 Mcf (monthly usage of 100.8 Ccf) experience lower delivery charges under the alternative rate structure. The revenue requirement for the class is achieved, with total delivery revenue of $169,334,514 versus $169,153,115 for the current rate design. For the 65% of customers who average less than 120.9 Mcf of consumption – i.e., conservation-focused "low-usage" customers – the annual savings generated is approximately 18% less than they currently pay the Company (i.e., a savings of $25,330,666). Additionally, 43% of the Company's residential customers would experience annual percentage savings of 34% on their bills (this group of 169,229 households comprises the Company's largest usage block). The savings of the median number of customers covered by the report (50% or 197,222) is likely comparable.

The net savings to low income customers in Example 2 could exceed the Company's estimate of the revenue required to implement the Low Income Order under either outcome of the Company's Low Income Order Petition: $4,221,609 versus $2,768,308 - the cap based on 2% of sales, or $3,919,464 - the cap based on 6% of energy burden of $3,919,464.

It is important to note that in Example 2, the delivery revenue necessary to generate savings to customers with annual usage of less than 120.9 Mcf, was derived by charging higher volumetric rates to customers with large usage. Consequently, those affected higher usage customers are more likely to respond in ways that would reduce their consumption significantly. Therefore, there is likely to be more of an RDM offset to savings, and in this example, the tail block rate is even higher than in the first alternative: $0.63334. Example 2 thus presents a greater risk that a material amount of the savings realized by lower usage customers could be offset by RDM adjustments to make up revenue lost to the Company through the rational responses of the heaviest users moving to conservation measures to lower their bills.

In summary, the two examples above illustrate ways that alternative approaches to rate design could help address the State policy imperatives of improving utility affordability for low income customers and reducing the State's GHG emissions 80% by 2050. The examples presented in Exhibit ___WDY-07 are for illustrative purposes and would require significantly more study and access to more granular information to be proposed to be implemented as alternatives to the Company's current rate design. The recommendation arising here from these two examples is simply that the advisability of using such alternative rate designs should be the subject of a collaborative study among the parties to this proceeding because of the potential benefits and heightened alignment with two of the State's key energy policies. In that way, the benefits of a wider range of viewpoints and of fuller information and expertise can be brought to the discussion.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.