

August 6, 2014

Via e-mail Hon. Kathleen H. Burgess Secretary Public Service Commission Three Empire State Plaza Albany, New York 12223-1350

Re: Case 13-G-0136 – National Fuel Gas Distribution Corporation – Rates Gas Expansion Plan

Dear Secretary Burgess:

National Fuel's "Gas Expansion Plan" (GEP) is attached herewith for filing in the abovereferenced proceeding. The GEP is required under the terms of National Fuel's Joint Proposal, approved by the Commission in an order issued on May 8, 2014. A collaborative, at which the GEP will be discussed, has been scheduled to be held in Niagara Falls on September 4, 2014. Parties to the rate case have been served with copies of the GEP and notice of the September 4 collaborative.

Thank you for your attention to this matter.

Respectfully submitted,

-Man

Eric H. Meinl General Manager

Case 13-G-0136 – Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of National Fuel Gas Distribution Corporation for Gas Service

Gas Expansion Plan

Submitted in Compliance to Conditions of:

JOINT PROPOSAL By and Among: Department of Public Service Staff Multiple Intervenors National Fuel Gas Distribution Corporation PUSH Buffalo Utility Intervention Unit, Department of State

Dated: December 6, 2013

As approved by the Commission in

ORDER ADOPTING TERMS OF JOINT PROPOSAL

AND ESTABLISHING RATE PLAN

(Issued and Effective May 8, 2014)

Dated: August 6, 2014

I) Introduction

National Fuel Gas Distribution Corporation ("Distribution" or the "Company"), files this Gas Expansion Plan ("GEP") detailing its attempts to reasonably expand its system to provide service to new customers. The GEP is filed in compliance with the Company's Joint Proposal ("JP") filed in Case 13-G-1036 and approved by the Commission on May 8, 2014.¹

As required in the JP, the GEP addresses issues associated with system expansion to the following groups:

- a) Customers already within 100 feet of gas main;
- b) Customers beyond 100 feet of gas main;
- c) Potential customers in new franchise areas;
- d) Low income customers;
- e) Natural Gas Vehicle ("NGV") customers including potential Liquified natural Gas ("LNG" filling stations.

The JP provided that funding for the GEP will include the first \$750,000 of capacity

release and off-system sales revenues.

Case 13-G-0136 – Proceeding on Motion of the Commission as to the Rates; Charges, Rules and Regulations of National Fuel Gas Distribution Corporation for Gas Service; ORDER ADOPTING TERMS OF JOINT PROPOSAL AND ESTABLISHING RATE PLAN; (Issued and Effective May 8, 2014)

II) Current Market Assessment

The current prices for heating fuels provide a significant advantage for natural gas. Samples of conversion economics for a hypothetical typical stand alone individual non-customer not participating in a main line extension program with multiple non-customers are provided in this section. As will be demonstrated in later sections this price advantage is expected to continue.

The following summarizes conversion economics as they exist at the time of this report.

- a. Sample Non-customer Conversion Economics
 - i. Annual Usage 1. Heating 80 Mcf ii. Energy Costs 1. Natural Gas \$10.00/Mcf \$10.00/MMBtu 2. Propane \$2.81/Gal \$30.68/MMBtu \$4.03/Gal \$28.00/MMTtu 3. #2 Oil iii. Gas Appliance Installed Costs CIP Rebates 1. Furnace \$3,500 \$250 - \$350 2. Furnace orifice change* \$200 -3. Boiler \$4,000 \$350 \$200 4. Boiler orifice change* _ *Propane Conversion Only
 - iv. Gas Infrastructure Needs
 - 1. Mainline 500 feet
 - 2. Service line 200 feet

٧.	Customer	Payback
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	Propane		# 2 C	Dil
	<u>Furnace</u>	<u>Boiler</u>	Furnace	<u>Boiler</u>
Heating System Replacement	\$200	\$200	\$3,500	\$4,000
CIP Rebate	-	-	(\$250)	(\$350)
New Internal Gas Houseline	\$200	\$200	\$200	\$200
Gas Meter	-	-	-	-
Gas Service Line	\$700	\$700	\$700	\$700
Gas Mainline	<u>\$4,800</u>	<u>\$4,800</u>	<u>\$4,800</u>	<u>\$4,800</u>
Total Cost	\$5,900	\$5,900	\$8,950	\$9,350
Annual Savings	\$1,654	\$1,654	\$1,519	\$1,519
Payback (years)	3.6	3.6	5.9	6.2

These paybacks of 3-6 years illustrate that even with the large annual savings of \$1,500 - \$1,700, these conversions are still challenging and difficult. This is also the reason most successful conversions usually involve groups of non-customers pulling together to jointly apply for gas service through our Mainline Extension Program (MLEP), thereby lowering the gas line cost per customer, and the associated payback. However, as applicants in the group begin to drop out, the cost for the remaining non-customers must be re-priced, and the new higher cost per applicant can many times cause even more applicants to drop out, which continues the

pattern of ever increasing cost to an ever decreasing number of remaining applicants. This slow, continual "death spiral" is the main reason for most unsuccessful MLEP projects, the larger the MLEP applicant pool, the harder it is to keep everyone committed to participating in the project.

III) Policy Overview

This section is provided to give a brief summarized overview of current Commission policy regarding system expansion. Also provided in this section is a brief summary of gas expansion proposals in other jurisdictions.

A) Current Policy

1) Service Mainline and Extension Policy Within the Company's Existing Franchise Service Area

The Company's tariff is consistent with statutory and regulatory requirements of New York State. 2

Current Commission regulations and policies have over the years been implemented to allow for the expansion of natural gas systems only in circumstances where such expansions will not cause existing customers to subsidize the expansion of the system to new customers. The existing regulations in utility tariffs prescribe specific rules to implement this general no subsidy policy. The current rules operate such that each individual expansion of the distribution system mainline must stand on its own as to whether the no subsidy policy is met.

This has led to an administratively cumbersome procedure for assessing new mainline expansions. Further, the regulations result in a less than customer friendly process for administering new service applications.

² 16 NYCRR Part 230

The Commission regulations should be modified to permit a more streamlined and customer friendly means of providing quotes for potential expansions of the natural gas distribution system. Utilities should be permitted to assess the potential for customer conversions in the area and provide a firm, long term, quote for mainline expansion based on the total cost of the expansion and a reasonable estimate of the expected number of customers attaching to the system over a reasonable time period. Utilities should also be permitted to either extend the duration of customer surcharges or develop an incremental rate adder for mainline expansion projects where existing rates will not fully compensate for the cost of the mainline expansion.

Determination of whether existing customers are subsidizing new customers should not be made on an individual project by project basis. Instead all mainline expansion projects over a designated time (for example over a five-year period) should be reviewed and determined whether the total incremental cost of all projects over this time are greater, equal to, or less than the total incremental revenues generated from all expansion projects. Adjustments to the cost and revenue estimation procedures could be made after the five year review process if it is determined that the current methods significantly under or over recover total costs.

2) Extension Policy Associated With New Franchise Areas

The rules for recovering costs from expansion into new service territories were established in Case 89-G-078³. The franchise expansion policy statement established a formulaic approach based existing utility service rates. Table 1 summarizes Commission policy for the expansion of gas service into new franchise areas.

³ CASE 89-G-078 - In the Matter of the Formulation of a Policy Regarding the Rate Treatment Afforded to Expansion of Gas Service into New Franchise' Areas; STATEMENT OF POLICY REGARDING RATE TREATMENT TO BE AFFORDED TO THE EXPANSION OF GAS SERVICE INTO NEW FRANCHISE AREAS; Issued and Effective December 11, 1989. ("Franchise Expansion Policy Statement")

Table 1

Commission Policy for Expansion of Gas Into New Franchise Areas

1. Economic impacts of new franchise proposals will be evaluated on the basis of a five-year development period.

2. If a new franchise proposal is projected to earn a rate of return by the fifth year of development that is at least equal to the allowed rate of return for the utility applicant, all investment, revenues and expenses will be afforded normal rate treatment.

3. If it is determined that a new franchise proposal is projected to earn less than a full rate of return by the fifth year of development, revenue levels established in rate proceedings during the five-year development period will include imputations equal to the projected average annual revenue deficiency for the new franchise area.

a. The revenue deficiency shall be the five-year average annual deficiency, established at the time of certification on the basis of the projected estimates of all revenues, costs and investments,

b. The amount of imputed annual deficiency will not be changed during the fiveyear development period.

c. Contributions of customers or municipalities toward capital costs will be allowed and recognized to reduce revenue deficiencies.

4. If a revenue deficiency is found, utilities will be authorized to assess surcharges on all sales in the new franchise area for a period up to five years from the commencement of gas service.

a. A maximum surcharge will be calculated on the basis of the aggregate five-year revenue deficiency divided by total estimated sales for the first five years.

b. Separate surcharge levels may be established for individual customer service classifications and surcharges may be adjusted during the development period, but the unit surcharge for any class may not be greater than the overall maximum level.

c. Subject to the maximum level, surcharge rates may be modified or eliminated at any time during the development period at the discretion of the utility.

d. Potential customers in the new franchise area shall be advised of the maximum and expected-levels of unit surcharge prior to their taking service. If final surcharge levels differ from those previously described in customer surveys, potential customers shall be notified of the changes prior to their applying for service.

e. Surcharge revenues will be excluded from rate case determinations.

f. Surcharges for all customers in the new franchise area shall terminate five years from the commencement of gas service in the new franchise area.

5. Extensions of gas service in new franchise areas during the development period, beyond the project for which the certificate has granted, shall also be subject to main and Case 89-G-078 service line extension rules as contained in 16 NYCRR, Part 230, and utility tariffs.

6. New franchise expansions accomplished in accordance with this policy shall bear a rebuttable presumption of prudence, but utilities will remain subject to

reviews for prudence of project management, or cost levels, or expansions shown to have been based on misrepresentations or on data or forecasts that prudent managers should have known to be inaccurate, outdated, or otherwise flawed. Subject to such prudence challenges, normal ratemaking procedures shall apply to all revenues, costs and investments after five years. 7. Alternative standards or measurement of the economic feasibility of new

franchise expansions may be considered by the Commission upon adequate showing by utilities.

Much has changed since the Franchise Expansion Policy Statement was issued. Perhaps the most dramatic change has been the significantly increased savings available to homes and businesses converting to natural gas. Figure 1 provides evidence of this dramatic change. At the time of the Franchise Policy Statement prices for residential heating service between natural gas and home heating oil were near parity. Indeed, throughout the early 1980's through 2007 residential home heating oil and natural gas prices in western New York State were not dramatically different. Worldwide demand for oil and the shale gas revolution in the United States has significantly changed this comparison. Currently, annual savings from access to natural gas supplies can approach \$1,700 for the average residential household when compared to home heating oil.

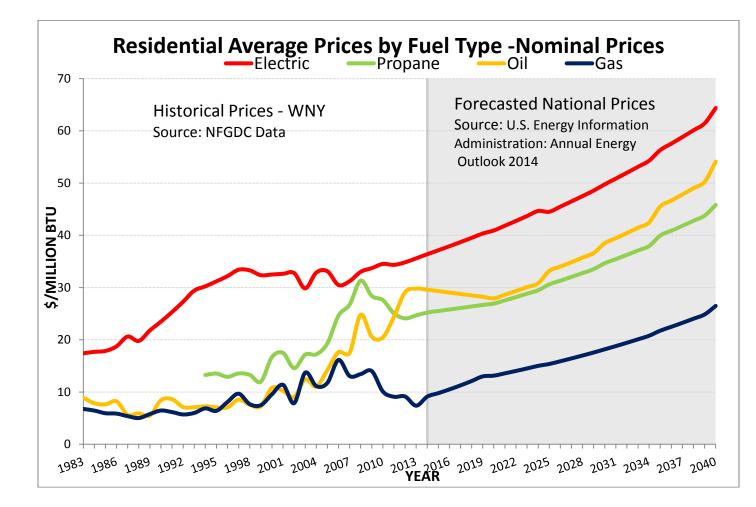
The Franchise Expansion Policy Statement does not reflect the significant long term benefit likely to accrue to homes and businesses converting from home heating oil or propane to natural gas.

B) Generic Proceeding to Explore Franchise Expansions

In October 2012 Governor Andrew M. Cuomo's Energy Highway Blueprint was issued by the Energy Highway Task Force. The Blueprint called for an examination of existing barriers to the expanded use of natural gas service by residential and businesses customers in the state and appropriate measures to reduce or eliminate potential barriers. The Commission issued an Order to review regulations and policies that may unduly constrain the availability of natural gas and/or other factors influencing customer conversions. The Generic Gas Expansion Order recognized the very substantial price difference between natural gas and oil, and that many residential, commercial and industrial customers could potentially benefit from conversion from oil to natural gas.

Figure 1 provides a summary of the differences in retail energy prices over the past 30 years within the Company's service territory. Figure 1 also provides a projection of national retail energy prices included in the 2014 Energy Information Administration's Annual Energy Outlook. As can be seen from Figure 1, natural gas prices have diverged dramatically lower than alternative heating sources over the past five years. From the forecasted retail information provided by the Energy Information Administration it is anticipated that this differential is likely to extend into the foreseeable future.





Comments in the Generic Gas Expansion Case were filed by numerous parties in the proceeding. Technical conferences in the proceeding were also held. Further Commission action in the Generic Gas Expansion Case is pending.⁴

⁴ The Commission has established dedicated link to its web site to provide information regarding the Generic Gas Expansion Case.

http://www3.dps.ny.gov/W/PSCWeb.nsf/All/A91E503FD17D8DFB85257ADB0076D14C?OpenDocument

C) Franchise Expansion in Other Jurisdictions

There has been much activity regarding natural gas utility expansion outside of New York State. The National Regulatory Research Institute issued a report in February 2013 that provided a summary of natural gas expansion activity by state.⁵

The natural gas utility expansion programs in these states recognize the need for greater contributions from customers in expansion areas since their cost to serve is greater than the revenue stream produced from rates to existing customers. Initiatives in other states usually take the form of a streamlined surcharge approach based on estimated customer conversions for the expansion area. An example of this approach is the UGI "Get Gas" program. The following provides a summary of UGI "Get Gas" Settlement (P-2013-2356232).

The GET Gas Pilot Program is a five-year pilot program that provides for each of the UGI Companies to invest an average of \$5 million per year for five years to facilitate the construction of new mains and services for customers located in unserved or underserved areas.

The GET Gas Pilot Program would be available to applicants seeking an extension of Company facilities that would require a total capital main cost of \$15,000 or more, a per customer maximum project cost of \$10,000, and where at least 50% of the prospective customers along the path of the GET Gas facilities can reasonably be estimated to convert their heating source to natural gas within a 12-year period after natural gas facilities are first installed.

⁵ Line Extensions for Natural Gas: Regulatory Considerations; Ken Costello, Principal Researcher; National Regulatory Research Institute; Report No. 13–01; February 2013 http://communities.nrri.org/documents/317330/aa3828ed-bbfa-4fac-b405-c6045dcf580c

The Settlement adopts the following GET G	Gas charges summarized in Table 2:
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Table 2 Summary of UGI "GET Gas" Program			
SETTLEMENT CHARGES	UGI	PNG	CPG
Residential GET Customer Charge	\$54.95	\$44.90	\$21.75
Commercial GET Customer Charge	\$7.86	\$23.01	\$13.08
Commercial GET Volumetric Charge	\$7.37	\$2.71	\$1.07

Commercial customers also will pay a volumetric charge in addition to a fixed monthly surcharge. The GET Gas surcharge will apply to each eligible customer who converts to natural gas by connecting to a gas main constructed under the GET Gas Pilot Program during the first 12 years of the useful life of the gas main. Each new GET Gas customer will pay the surcharge for 10 years, after which time the surcharge will be discontinued.

Some states allow for recovery of a portion of expansion costs from existing customers in addition to surcharges on customers in expansion areas. This "hybrid" approach attempts to recognize that there may be additional environmental and economic benefits to the general public from providing greater access to clean burning natural gas.

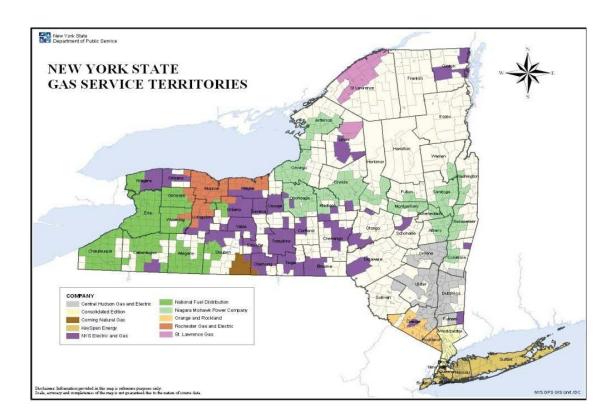
- IV) Expansion to Different Customer Groups
 - A) Overview

The Company has a diverse service territory serving 11 counties, 11 cities, and over 200

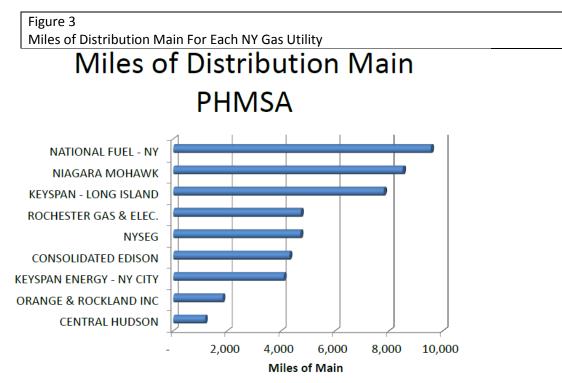
towns and villages in western New York State. Figure 2 provides a map of service territories in

New York.

Figure 2 New York State Gas Service Territories

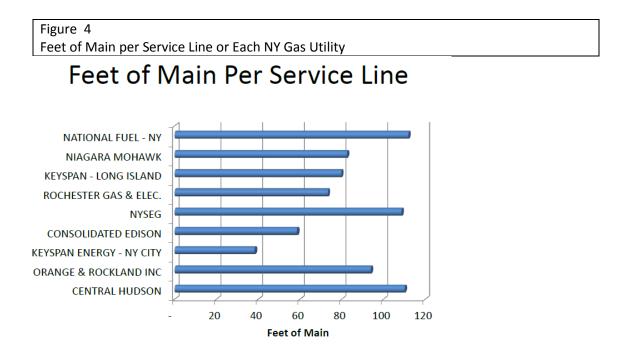


Based on 2011 information from the federal Pipeline and Hazardous Material Safety Administration ("PHMSA"), the Company has installed the greatest amount of miles of natural gas distribution mains of any natural gas utility in New York. Figure 3 summarizes this information.



The feet of main installed per service line is also the greatest in New York State as

summarized in Figure 4.



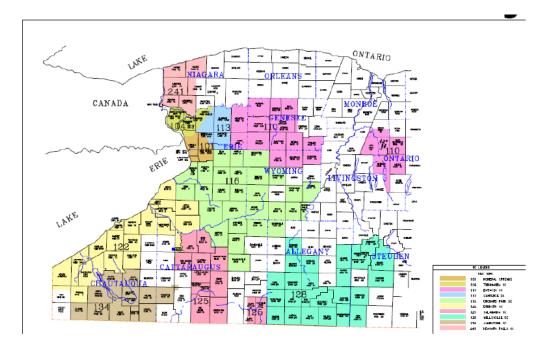
This data demonstrates the Company's commitment to expanding access of natural gas

facilities in its service territory.

Figure 5 provides a more detailed view of the counties and municipalities served by the

Company.

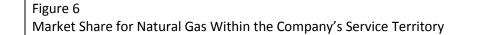


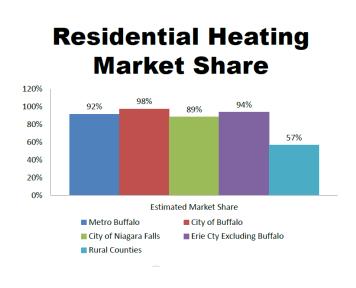


The Company serves urban, suburban and rural communities.

Market Share for natural gas within the Company's service territory is provided in Figure

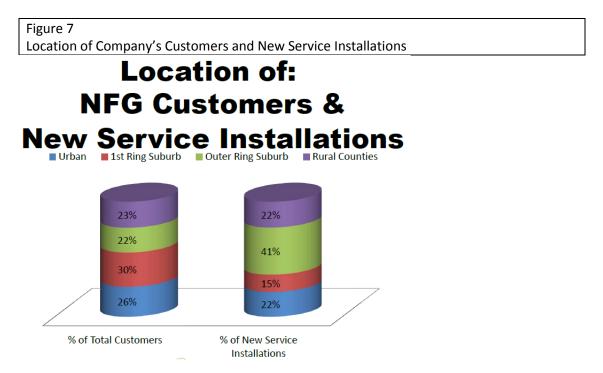
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A 2012 analysis of the types of communities where new service expansion has occurred

in the Company's service territory provided a breakdown of activity as summarized in figure 7.



The differences in expanding to urban, suburban, and rural communities in the Company's service territory can be appreciated from the following examples where the Company has expanded in each setting. Figure 8 provides a map of expansion in an urban setting.

Figure 8 Example of Urban Setting in Company's Service Territory

Urban New Service Opportunity



Figure 9 provides a map of an expansion in a suburban setting, and figure 10 provides a

map of an expansion in a rural setting.



Figure 10 Example of Rural Setting in Company's Service Territory

Rural New Service Opportunity



B) Customers Within 100 Feet of Main

1) Overview

Households within 100 feet of the Company's main are predominantly found in urban and first ring suburbs of the Company's service territory. Most of these households are using oil as their primary heating fuel, with either oil or electricity for water heating, cooking and clothes drying. Due their close proximity to the Company's mainline, these non-customer's will likely incur little to no cost for the service line and meter to connect to our system. However, there are still fairly significant hurdles to these conversions. Converting from oil to natural gas will involve removal of the existing oil furnace, boiler, water heater or any other oil appliance being converted, along with the oil tank. The furnace, boiler, water heater and oil tank are most likely found in the basement of the home which further complicates removal of the equipment. In addition, the purchase of new natural gas appliances (furnace, boiler, water heater, etc.) is required, along with the installation of internal gas house piping. The net result of this is that even though the non-customer will not incur any costs for gas infrastructure from the Company, they will incur incremental costs for oil equipment removal, new gas equipment and gas house piping, along with the timing and coordination of this work with heating/plumbing contractors. Given the high market share in these portions of the Company's service territory the opportunity for additional significant system expansion requests is limited. The Company has implemented programs to identify and offer service to unserved households within 100 feet of our main lines.

2) "Skips" Program

The Company has been working on 2 methods to identify these noncustomers, or "skips", as we refer to them as. This term of "skips" came from the fact that since these homes are right in front of our mainlines but don't use natural gas, our meter readers "skip" them as they perform their meter reading routes along our mainlines.

The first method the Company has used in the past is a list matching process whereby we match large lists of households against our customer database. We have purchased lists from third party vendors in the past, and more recently begun investigating the availability of online data from municipal public property records. Those households that don't match our customer list should in theory be a non-customer. However, in practice, this process involves time consuming manual scrubbing to ensure the quality of the list, mainly due to the potential difference in nomenclature of the outside lists and our customer database. For example, the outside list may refer to a household address as 100 Oak St. and our database as 100 Oak Street. Because they are not exactly identical, this would not be an exact match, and the list matching would indicate them as a non-customer when they are actually a customer. Based on our past experience and high market share, we have found this process to be time consuming and not cost effective given the large amount of residential customers and low amount of noncustomers near our mainlines.

The second method the Company has used more recently is to utilize our meter readers to identify these skips households. To test this process, we recently performed a pilot program in our Tonawanda service center to determine how effectively we could identify and engage these noncustomers in the conversion process. We chose this service center, which covers the

towns of Tonawanda, Kenmore and Grand Island, due to information that these areas of first ring suburbs outside the city of Buffalo had a somewhat high level of skips noncustomers. During their meter reading routes, our meter readers hung door hangers in every home they skipped along their route. Based on this process, we identified and hung 49 door hangers in these 3 towns with a brief message and phone number to call for a free information package. We received little response to these door hangers, so we followed up with these 49 households in two ways. First, we mailed each of them an information packet detailing the expected typical costs savings and equipment upgrade costs for the conversion, financing options and a list of local Building Performance Institute (BPI) contractors participating in NYSERDA's free Home Performance with Energy Star comprehensive home energy audit. Second, we did a mailing to all 49 households inviting them to a free workshop we conducted at a VFW Hall in Kenmore, where we reviewed all the aspects of converting to natural gas. Unfortunately, we only had 3 households attend, but all 3 households ended up converting to natural gas within 6 months of this event.

Based on the results of the Tonawanda meter reader pilot program, the Company plans on expanding this to several other service centers and geographic regions which may also have pockets of skips customers.

3) Geographic Information System (GIS)

The Company is also planning on investigating the use of a Geographic Information System (GIS) to identify skips noncustomers. This would involve several steps. The first step is to geocode the Company's customers by address matching them against available address data sources to find high quality locations. The preferred likely initial address matching dataset will

be either local government (real property parcels data and 911 address datasets) and/or nationally available road centerline address ranges. Once our customer addresses in our Customer Information System (CIS) database are geocoded against one or both of these data sets, a manual review process will be required to fine tune the exact location of the customer due to some built in limitations of both data sets. The next step is to map the noncustomers by subtracting them from the overall household parcel data. This will then illustrate each noncustomer visually on a map, and can be combined with a map layer showing our natural gas mainline infrastructure to visually indicate where each customer lies with respect to our mainlines. The final step would be to use the GIS spatial locating function to calculate the distance from each noncustomer to the nearest mainline. A buffer could then be set up to flag only those less than 100 feet from our mainlines, and color code them as a skips noncustomer. Finally, each skips noncustomer data point would contain unique attributes for that specific noncustomer, possibly even including the fuel type if that data was available. In addition, the GIS would allow for the capability of tracking the different types of marketing outreach efforts used (door hangers, phone calls, direct mail) and the customer's response (converted, interested, not interested, no response). Because of the cost and effort to implement this GIS initiative across the Company's entire service territory, and the limited size of the skips market, the Company will investigate the feasibility of testing the GIS initiative in a targeted geographic area to determine its effectiveness. Depending on the outcome of the pilot test, we will determine the viability of conducting this for our entire service territory.

4) Large Volume Customer Constraints

While the Company's distribution system has sufficient capacity to meet the current requirements of its customers, certain portions of the Company's system are approaching full capacity, which may limit the opportunity for quickly responding to requests for additional natural gas supply service. The Company has developed programs to promote distributed generation ("DG") and natural gas vehicles ("NGV"). The Company has developed "partnership" programs for the development of DG and NGV where the Company buys down a portion of the first costs associated with DG or NGV equipment. The buy down of equipment costs is recovered through the incremental volume transported by the NGV or DG customer. The Company believes it may be worthwhile to explore a similar partnership to revitalize the industrial manufacturing economy of WNY ("PRIME-WNY")._ The availability of low cost natural gas supplies is reshaping the competitive environment for manufacturing in the United States. ⁶

PRIME-WNY would be designed to help manufacturers in the Company's service territory take full advantage of this opportunity.

a. PRIME-WNY Program Description

The Company would be permitted to buy down the initial capital cost of system improvements, house piping, or customer gas fired equipment for qualifying customers. The customer would compensate the Company for the amount of the capital cost buy

⁶See for Example:

Impact of the Manufacturing Renaissance from Energy Intensive Sectors; Prepared for: The United States Conference of Mayors and the Council on Metro Economies and the New American City; Prepared by: iHS Global Insight

http://www.usmayors.org/pressreleases/uploads/2014/0320-report-MetroEconomiesManufacturing.pdf

down through the incremental revenues derived from the customer's transportation service contract with the Company. The Company would enter into a contractual arrangement with the customer to recover any amount of the buy down above revenues generated by the tariff rate.

b. Qualifying Customers

Customers that install incremental natural gas fired equipment on their premises would qualify. The customer would agree that for the term of the contract (which may vary by customer) the Company shall be their sole provider of natural gas delivery services. Customers must take service from the Company under one of the following Service Classifications: SC 13D TC 3.0,SC 13 D TC 4.0, SC 13 D TC 4.1, SC 13M TC 3.0, SC 13 M TC 4.0, SC 13 M TC 4.1, SC 16, SC 17, SC 21, or SC 23.

c. Term

The Company shall be permitted to enroll customers into this program for a three year test period. Depending on the success of the program the term could be extended beyond three years. The contract term with customers would be established through negotiations with the customer. The maximum length of any contract term negotiated with a customer under this program would be six years.

d. Total Limit on Capital Cost Buy Downs

The facility cost buy downs under this program would not exceed a specified amount, for example \$6 million.

e. Metering

Metering would be installed which will permit the incremental usage of the qualifying facilities and equipment to be separately identified from other customer applications.

- C) Customers Beyond 100 Feet of Main
 - 1) Overview

Customers beyond 100 feet of main tend to be in the outer ring suburbs and rural counties of the Company's service territory. Most of these households are using propane as their primary heating fuel, with either propane or electricity for water heating, cooking and clothes drying. Due their longer distance to the Company's mainline than skips households, these non-customers will likely incur substantial costs for the mainline and service line to connect to our system. These gas infrastructure costs are usually the largest portion of the overall cost to convert, and represent the biggest hurdle to these conversions. The additional costs of converting from propane to natural gas are much smaller and involve the conversion of the propane gas appliance. Many propane furnaces, boilers and other appliances may be converted to natural gas by simply changing the burner orifice. Hot water tanks vary in their conversion capabilities, and may either be converted by changing the burner orifice, or in some cases require replacement with a new natural gas water heater. In addition, existing propane gas house piping may be able to be used for natural gas appliances, which eliminates the cost of installing new internal gas house line. The net result of this is that even though the non-customer will incur little to no costs for equipment upgrades and gas house piping, they will incur large incremental costs for gas infrastructure to serve the household, which can be a large barrier to the conversion.

Service requests from these areas can be from property developers building new homes and from existing homes looking to convert to natural gas. The length beyond 100 feet of existing mains can vary widely. Figure 10 provides an excellent example of the lack of density of potential customers when serving rural areas. Further, service line lengths can vary widely in rural areas. Unlike new home developments, the service line requirements for existing homes can be quite lengthy since homes may be set back a great distance from the highway and distribution main line.

2) GIS

The Company is also planning on investigating the use of a GIS to identify noncustomers beyond 100 feet from our main. As with the skips GIS process, this would involve several steps. The first step is to geocode the Company's customers by address matching them against available address data sources to find high quality locations. The preferred likely initial address matching dataset will be either local government (real property parcels data and 911 address datasets) and/or nationally available road centerline address ranges. Once our customer addresses in our Customer Information System (CIS) database are geocoded against one or both of these data sets, a manual review process will be required to fine tune the exact location of the customer due to some built in limitations of both data sets. The next step is to map the noncustomers by subtracting them from the overall household parcel data. This will then illustrate each noncustomer visually on a map, and can be combined with a map layer showing our natural gas mainline infrastructure to visually indicate where each customer lies with respect to our mainlines. The final step would be to use the GIS spatial locating function to calculate the distance from each noncustomer to the nearest mainline. A buffer could then be set up to flag only those greater than 100 feet from our mainlines, and color code them as a

noncustomer beyond 100 feet. For even better precision, this could be done in ranges, for example 100 – 500 feet, 500 – 1000 feet, greater than 1000 feet, etc. In addition, the GIS would allow us to cluster certain groups of noncustomers near each other together to identify potential high potential areas to prioritize our marketing efforts. Finally, each skips noncustomer data point would contain unique attributes for that specific noncustomer, possibly even including the fuel type if that data was available. In addition, the GIS would allow for the capability of tracking the different types of marketing outreach efforts used (door hangers, phone calls, direct mail) and the customer's response (converted, interested, not interested, no response). Because of the cost and effort to implement this GIS initiative across the Company's entire service territory, the Company will investigate the feasibility of testing the GIS initiative in a targeted geographic area to determine its effectiveness. The Company plans to approach this at the individual town level, working closely with individual municipal town officials (supervisor, clerk, etc.) to collect whatever data is available on all residential properties, and perform the analysis described above in an attempt to identify any high priority clusters of homes that may show potential for developing a pilot program outlined in the next section. Depending on the outcome of this process, we will determine the viability of conducting this for our entire service territory.

3) Pilot Program

a. Program Overview

On July 28, 2014, the Company held a town hall meeting in Wilson, New York to introduce a pilot program to test market a streamlined approach to expanding its system a significant number of potential customers in its service territory. Features of the pilot program are provided below.

- 1. Goal
 - Test market the impact on customer conversions to natural gas from providing firm, long term main line extension price quotes on the overall natural gas conversion market in the Company's service territory.
- 2. Objectives
 - Test market a streamlined main line extension program based on reasonable projections
 of customer conversions to natural gas over a <u>five year</u> time period. The program will
 be consistent with current tariff provisions and main line extension regulations.
- 3. Benefits
 - Provide simple and understandable method to provide for economic expansion of service to communities that are not currently provided access to natural gas, and expands service to areas where natural gas is competitive with alternate fuels.
 - Converting customers will gain access to natural gas supplies for their homes and businesses on a scheduled basis. The schedule will allow for advanced planning on the part of the customer for conversion to gas service.
 - The surcharge quoted to the customer will be a firm long term quote not subject to adjustment, and customers will know in advance what the main line extension surcharge will be.
 - Pilot program will:
 - 1. Eliminate the "death spiral" of having to work with multiple customers and changing pricing parameters as customers join in or drop out.
 - Test the premise that service can be expanded to outlying areas without requiring subsidies from existing ratepayers.
 - 3. Provide the Company with greater certainty for planning future system expansions.
- 4. Target Areas
 - Areas of significant conversion potential where estimated monthly surcharges based on expected customer conversions are \$30 or less.

- Eligible areas for the pilot will be those with significant numbers of potential customers to make the test meaningful. Initially, pilot areas will be limited to those with at least 100 potential customers.
- Initial Pilot areas will also be targeted to those areas that have demonstrated a long term interest in converting to natural gas. Number of applications previously received, frequency of inquiries, local community and government support for expediting the construction of facilities necessary to support the system expansion will be used in determining targeted pilot areas.
- 5. Scope
 - Proposed initial locations for Pilot:

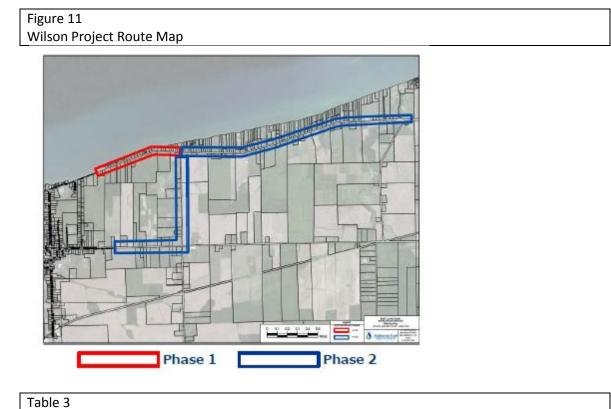
<u>Wilson, NY</u>

- 1. Address Range: 4287 to 5251 East Lake Road
- 2. Total Potential Customers: 193 (191 residential, 2 commercial [winery and stable])
- 3. 2 possible additional commercial customers (grain dryers)
- 4. 116 applications to date
- 5. Most homes (95%) heated with propane, the rest with #2 oil
- 6. 90% year-round homes, 10% seasonal
- 7. Many homes set back far from road (300-400 feet)
- 8. Mix of older and new homes

Richmond, NY

- Address range: 4995 to 6210 East Lake Road
- Total Potential Customers: Approximately 400 residential
- Approximately 300 expressed interest (signed letter not service application)
- Most homes (90%) heated with propane, the rest with #2 oil
- 80% year-round houses, 20% seasonal

Figure 11 provides the Wilson project route map and Table 3 the program time line.



Wilson Project Timeline		
July 2014	Obtain right of way (ROW) agreements	
August-December 2014	Phase I construction 4200-4282 E. Lake Rd. 4286-4427 E. Lake Rd.	
January-December 201	Phase 2 construction	

A public meeting was held on July 28, 2014 at the Wilson Town Hall in which 36 local

residents attended. An informational packet was given to each attendee, which included:

Case 13-G-0136 National Fuel Gas Distribution Corporation Gas Expansion Plan

- Meeting agenda
- Pilot Program Fact Sheet
- PowerPoint presentation
- Pipeline route map
- NFG service application with postage paid return envelope
- CIP Rebate program and application form
- Heating contractor list

The meeting program included an overview of our pilot program (program purpose, pipeline route and phases and project timeline), what to expect during construction (main line, service line and meter), program pricing (mainline and service line), customer gas appliance information (conversion options/costs, gas house piping and typical annual energy savings) and how to apply. The meeting ended with a question and answer session. Overall, the response from the attendees was very positive, and they looked forward to connecting to our system over the next year and a half.

D) New Franchise Areas

1) Overview

Figure 2, provided a map of New York State natural gas local distribution company (LDC) service territories. While there are pockets of unserved territories adjoining the Company's service territory, the Company's service territory is different from most other New York LDCs. The other upstate LDCs appear to have significantly more unserved portions of the state abutting their service territories. The Company has had relatively few inquiries regarding franchise service territory expansion.

In assessing new franchise territory opportunities, the Company would use similar expansion tools as used in extending the system to potential customers beyond 100 feet of main.

The Company believes that the lessons learned from the Wilson pilot (as well as other expansion areas that may prove useful in testing further the goals and practices of the Wilson pilot area) will prove useful in expanding the system in new franchise areas.

It may, however, be necessary to change the Franchise Expansion Policy Statement to reflect the significant changes in the market place since 1989 when the Franchise Expansion Policy Statement was issued. The Franchise Policy Statement does not reflect the significant long term benefit likely to accrue to homes and businesses converting from oil or propane to natural gas. Particularly inconsistent with current market conditions is the Franchise Expansion Policy Statement's five year limit on authorized surcharges. From a purely economic perspective there is no justification to limit the time frame for surcharges needed to expand natural gas to higher cost potential franchise area. Areas that require significantly greater capital investments per customer served should pay greater for such facilities than those that require less significant investment to be served. Fuel price differentials may likely to support system expansion while still providing significant benefits for households to convert to natural gas.

2) GIS

The Company is also planning on investigating the use of a GIS to identify potential customers in new franchise areas. As with GIS process for the other 2 noncustomer groups mentioned earlier, this would involve several steps. The first step is to geocode the Company's customers by address matching them against available address data sources to find high quality locations. The preferred likely initial address matching dataset will be either local government (real property parcels data and 911 address datasets) and/or nationally available road centerline address ranges. Once our customer addresses in our Customer Information System (CIS)

database are geocoded against one or both of these data sets, a manual review process will be required to fine tune the exact location of the customer due to some built in limitations of both data sets. The next step is to map the noncustomers by subtracting them from the overall household parcel data. This will then illustrate each noncustomer visually on a map, and can be combined with a map layer showing our natural gas mainline infrastructure to visually indicate where each customer lies with respect to our mainlines. The final step would be to use the GIS spatial locating function to calculate the distance from each noncustomer to the nearest mainline. A buffer could then be set up to flag only those greater than 100 feet from our mainlines, and color code them as a noncustomer beyond 100 feet. For even better precision, this could be done in ranges, for example 100 – 500 feet, 500 – 1000 feet, greater than 1000 feet, etc. In addition, the GIS would allow us to cluster certain groups of noncustomers near each other together to identify potential high potential areas to prioritize our marketing efforts. Finally, each skips noncustomer data point would contain unique attributes for that specific customer, possibly even including the fuel type if that data was available. In addition, the GIS would allow for the capability of tracking the different types of marketing outreach efforts used (door hangers, phone calls, direct mail) and the customer's response (converted, interested, not interested, no response). Because of the cost and effort to implement this GIS initiative across all the potential areas outside the Company's entire service territory, the Company will investigate the feasibility of testing the GIS initiative in targeted geographic areas to determine its effectiveness. The Company plans to approach this at the individual town level, working closely with individual municipal town officials (supervisor, clerk, etc.) to collect whatever data is available on all residential properties, and perform the analysis described above in an attempt to identify any high priority clusters of homes that may show potential for developing a pilot

program similar to that outlined in the previous section. Depending on the outcome of this process, we will determine the viability of conducting this for particular areas outside our franchise area.

V) Low Income Customers

Expansion of natural gas service to low income customers presents a number of issues and challenges. Energy costs as a percentage of income is higher for low income customers. Therefore, replacing their current heating fuel with natural gas will have a greater impact as a percentage of income for these customers. The upfront cost of equipment replacement can be an obstacle for a low income customer converting to natural gas service.

Low income households that heat with fuels other than natural gas are also eligible for government assistance. Since the cost of fuel is higher the assistance received by the customer from the state is greater for fuels other than natural gas. Therefore, converting a low income customer to natural gas will not only accrue benefits to the low income customer but also to tax payers in general resulting from lower public assistance costs to these customers.

Table 4 summarizes the planned HEAP benefits by fuel type for the impending 2014-2015 HEAP plan year.

Table 4			
LIHEAP Benefits by Fuel Type			
	Regular Benefit	Emergency Benefit	
Natural Gas Heat	\$350	\$350	
Electric Heat	\$350	\$350	
Oil, Propane, Kerosene	\$575	\$575	

The Company has a number of services available for its low income customers. Table 5 provides a summary of available services for its low income and special needs customers.

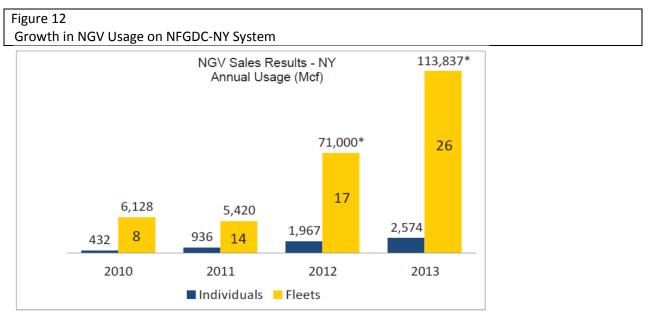
Table	۶ ۶
	nary of Available Services for Low Income and Special Needs Customers
	Iderly, Blind or Disabled Payment Troubled Residential Assistance (EBDPTRA)
T O e	This special program is designed to assist payment-troubled customers who are at least 62 years of age, blind or disabled. Program features include a lower monthly gas rate, debt forgiveness, emergency heating equipment repair or replacement, and conservation measures depending upon individual circumstances. Eligibility is limited to currently enrolled customers.
Н	IEAP Residential Assistance Rate
r	vailable to all residential heating service customers who are billed by the Company and eceived a HEAP payment in either the current or prior HEAP plan year and are not receiving ervice under the LICAAP or EBDPTRA rate schedule.
L	ow Income Customer Affordability Assistance Program (LICAAP)
t	f the customer meets the eligibility requirements, they can receive discounts of up to 70% off of he regular residential rate determined by household income and size. They can also receive lebt forgiveness for timely bill payments up to 24 months. Enrollment is limited.
Ν	leighbor For Neighbor Heat Fund
p e	The Neighbor For Neighbor Heat Fund, a first-come, first-served home-heating assistance grant program is available to provide assistance to low-income Western New Yorkers to help pay for energy-related expenses. Qualifying Western New Yorkers may receive a one-time grant of up o \$400.
	n order to qualify for a grant, applicants must fall into at least one of the following lassifications:
	 Be at least 55 years old; a member of their household must be handicapped or have a disability that reduces the household's income; have a certified medical emergency; or be receiving unemployment benefits.
p a	applicants must have made at least four payments to their heating bills within a 12-month period from the date of application. Monthly income and expenses will be verified and grant pplications are processed by administering agencies. Applicants must reside in National Fuel's ervice territory; however, they are not required to be a National Fuel customer.
Т	he fund provides grants that help people to:
	 Prevent disconnection of their utility service; pay current or past due energy bills; or

purchase home heating fuel.
The Neighbor For Neighbor Heat Fund is funded by contributions from National Fuel Gas Company, its customers and employees, and other private entities. This fund was established by National Fuel in 1983 and has offered grants to more than 18,000 Western New Yorkers, totaling more than \$5 million.
Budget Plan
For many of our customers, having level and predictable monthly gas payments can make budgeting easier. Our Budget Plan allows customers to stabilize their entire monthly bill for up to one year. The plan divides the estimated annual bill by 12 (or by the number of months the customer wants their budget plan to be in effect).
Budget Plan participants' average bill amounts are based on a combination of the cost of gas and weather conditions, plus historic and current gas usage. Since these factors can change, the Company may adjust the Budget Plan amount periodically to ensure that it remains accurate.
Deferred Payment Agreement
The Company recognizes that some people have difficulty making payments from time to time.
The customer may provide income and expense information. Based on that, the Company may be able to arrange a deferred payment agreement.
Hospitalized Customer Assistance Plan
If a customer is anticipating a hospital stay of ten days or more, the customer may contact the Company to extend the due date of their gas bill by thirty days. If the customer is permanently disabled or retired, they may request an extra measure of security for uninterrupted gas service by coordinating bill due dates to coincide with the arrival of your pension or Social Security checks.
Low Income Usage Reduction Program Special programs are available for National Fuel customers to help manage their fuel costs. The programs, administered for National Fuel by NYSERDA, provide energy efficiency measures including but not limited to insulation, heating system inspections and repairs, caulking, and air sealing to reduce drafts and more.
To be eligible, low income customers must have high usage, along with other factors that would make weatherization measures cost-effective.

There may also be additional services to low income customers available from NYSERDA, other government agencies, or utilities.

VI) NGV Customers

Natural gas has been used as a transportation fuel for decades. However, NGVs have become more popular over the past few years in our service territory. The large increase in prices of diesel and gasoline, combined with record low natural gas prices, has increased the demand for natural gas to fuel vehicles. These factors, along with growing environmental concerns and the need to reduce our dependence on imported oil, have caused our NGV market to increase, especially among large commercial fleets. National Fuel has seen several large customers convert large portions of their fleet to NGVs. Some of these customers include Modern Disposal, Waste Management, Try-IT Distributing, Guard Contracting, Innovative Transportation and New York State Office of Parks & Recreation. Due to these conversions, National Fuel has seen a dramatic increase in natural gas usage over the past few years. The chart in Figure 12 below illustrates this rapid growth.



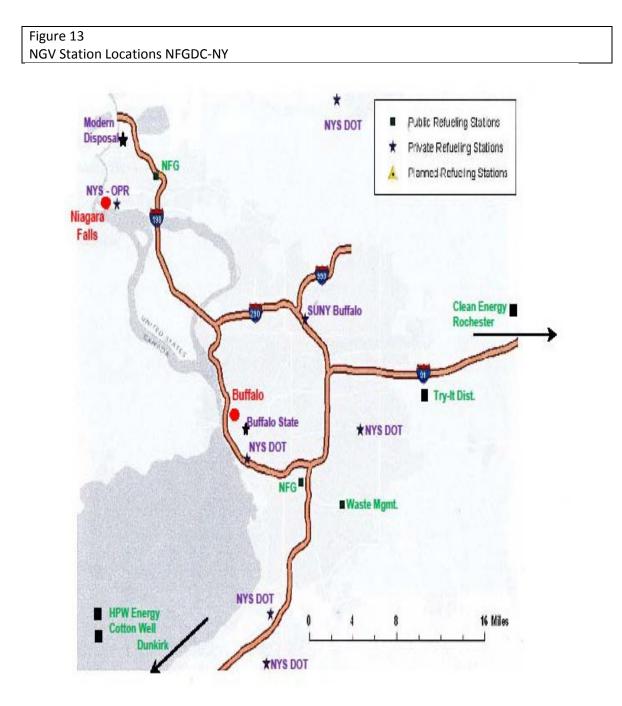
* For illustration purposes only - not to scale

The market penetration of NGVs in our NY service territory has begun to make progress. Several NGV options are now more commonly available compared to past years. These include vehicle sizes from Light Duty to Medium Duty to Heavy Duty. The Light Duty vehicles include passenger cars, taxi cars and service vans. The Medium Duty vehicles include short haul delivery trucks, transit buses and shuttle buses. The Heavy Duty vehicles include transit buses, shuttle and school buses, tractor trailer trucks and garbage trucks. However, these vehicles come with an added cost. The Light Duty vehicles can cost an additional \$7,000 to \$14,000 versus gasoline vehicles. The Medium Duty vehicles can cost an additional \$25,000 or more versus gasoline/diesel vehicles. However, even with these incremental costs, National Fuel continues to see the economic and environmental impacts outweigh these costs among our customers.

As more vehicles enter the market, we are also now beginning to see NGV refueling stations being built to satisfy this market. There are two primary types of stations, time-fill and fast-fill. The time-fill station is recommended for private fleets with vehicles that return to a central location overnight. The refueling time usually take 6 to 8 hours, and these stations can cost between \$100,000 and \$1,000,000. The fast-fill station is recommended for a public station. The refueling time is usually between 3 and 7 minutes, and these stations can cost \$500,000 to \$3,000,000. However, in addition to their time-fill station, some private fleets will add a fast-fill station option. National Fuel currently has seven public access stations and six private access stations in our service territory.

The public access stations include National Fuel's two stations (West Seneca and Niagara Falls), Waste Management, HPW Energy, Cotton Well Drilling, Clean Energy and Try-It

Distributing. The private access stations include Waste Management, Modern Disposal, NYS Office of Parks & Recreation, NYS Department of Transportation's six locations, SUNY at Buffalo and Buffalo State College. The map in Figure 13 below illustrates the locations of these stations in western New York.



Currently, the main impediments to the expansion of CNG and LNG transportation are the high cost and lack of refueling infrastructure, followed to a lesser degree by the higher incremental cost of a CNG/LNG vehicle over a similar gasoline/diesel vehicle, and the limited availability of all types of natural gas vehicles (bi-fuel, dual fuel and dedicated). The final impediment is the lack of incentives available for customers to help overcome these higher refueling station and vehicle costs. To address this last impediment, Distribution received approval on November 18, 2011 from the NY PSC for a new NGV Partnership Pilot Program which offers incentives to our customers for these added costs based on the incremental usage/margin the new NGV's will generate. As of August 2014, the Company has 3 customers participating in this program, with a fourth customer in the process of finalizing their contract to be in the program as well. These four customers utilize 133 natural gas vehicles, with an annual gas usage of 112,389 Mcf, and include a total of \$442,195 in grants, approximately 15% of the \$3 million we are approved by the NY PSC to provide through this program.

The NGV market has been hampered for years by the "chicken vs. the egg – which comes first?" syndrome – will a widespread refueling infrastructure be required to be in place before natural gas vehicles grow in popularity, or will a large amount of vehicles be needed to be in use before the refueling infrastructure will grow? Distribution's approach to try to break this logjam is to work with our larger commercial/industrial customers that have vehicle fleets that return to a central location, and assist them in analyzing the economics of NGV's for their fleet's unique characteristics. This analysis will hopefully lead to them either purchasing several new NGV's and using a public refueling station, or if the situation merits, also building a private refueling station to serve these new NGV's as well.

With respect to the LNG market in New York state, the New York State Department of Environmental Conservation (DEC) is currently reviewing public comments relative to "Proposed 6 NYCRR 570 – Regulation of Liquified Natural Gas Facilities". At this time, there is no known date deadline for a final decision or resolution to this proposal.

As long as the price differential between natural gas and gasoline/diesel remains, the resulting operating cost savings can be used to offset the added cost of the refueling station and vehicles, and the market for CNG/LNG vehicles should continue to expand.

As mentioned previously, the Company has two public access stations located in West Seneca and Niagara Falls. These stations have been in existence for approximately 20 years. Over this time frame the stations provided access for fueling Company vehicles and vehicles owned by the public. Public access was in initially provided at a time when there were no other public fueling facilities and, therefore, there was a clear need for the Company to provide access to refueling facilities to answer the "chicken vs. the egg" issue discussed previously. At the time that the initial Company facilities were made available for public access the rate to customers was capped at the second block delivery rate for the Service Classification No. 3 sales service rate. Converted to a gasoline/diesel equivalent, National Fuel's NGV rate is currently far lower than market. The Company has been concerned that charging a below-market rate for NGV service will discourage development of the retail NGV market in National Fuel's service territory.⁷ The Company believes that the future development of NGV markets in its service territory will hinge on the development of retail refueling stations operated by parties other than the Company. While independent NGV station development is occurring, access to Company refueling facilities is still needed to support market development. The NGV market in the Company's service territory is clearly in a transition state that the Company believes will be enhanced by permitting the Company to charge market based rates at its refueling facilities.

VII) Summary of Company Plans For System Expansion

The Company believes that much will be learned from the Company's gas expansion pilot in Wilson as well as gas expansion plans in other New York LDCs and gas expansion plans operating in other states. At this time, the Company believes that the best course of action is to continue with its gas expansion pilots and expand the pilot program to other sections of its service territory as opportunities for system expansion are identified and lessons are learned from expansions done in earlier pilot areas. The Company expects to learn valuable insights early on in its Wilson pilot expansion. Particularly the rate of expansion at the monthly surcharge and upfront payment options will provide valuable insights for the design of future expansion areas.

Further discussions regarding system expansion in potentially constrained areas of the service territory to support manufacturing opportunities should also be discussed. Particularly

⁷ On January 15, 2013 the Company filed for market based pricing authority for NGV service in CASE 13-G-0017 – Filing by National Fuel Gas Distribution Corporation to make revisions to Service Classification No. 7 – Sales for Service for Customers Operating Natural Gas Vehicles.

Staff recommended and the Commission approved that the market based rate issue should be deferred for future consideration (Order in Case 13-G-0017, Issued and Effective August 19, 2013).

useful would be a partnership program modeled after existing DG and NGV partnership programs in the Company's tariff.

Identification of all available low income customer benefits which could be made available for low income customers in expansion areas should also be developed. Coordination with providers of all such low income services with the roll out of system expansions should attempted to the greatest extent practical.

NGV growth in the Company's service territory is ongoing. The Company believes that growth in refueling stations owned by operators other than the Company is essential to further growing the NGV market in the Company's service territory. Permitting market based rates at the Company's two public access fueling facilities will support the growth of independently operated NGV fueling facilities.

VIII) Next Steps

The JP requires that the Company convene a meeting with interested parties to discuss the gas expansion plans. A meeting is scheduled to be held in Niagara Falls, New York on September 4, 2014. The Company will establish a schedule for further discussions on its expansion plan at the initial September 4, 2014 collaborative meeting.

As specified in the JP, the purpose of the collaborative is to further develop program details including the following:

a. Recognition of customer growth potential along a main line project in determining surcharges to be applied to customers receiving service from the specific system expansion (e.g.,

pre-piping agreements, municipalities' involvement, natural gas producers, other property owners, etc.);

b. Provision of financial support or assistance in removing barriers to conversions (e.g., rebates for high efficiency furnaces, equipment purchase programs);

c. Expansion of Outreach and Education efforts to specifically target conversion to gas service which includes cooperation and coordination with other state and local agencies (NYSERDA programs, Division of Home and Community Renewal, etc.);

d. Additional assistance to improve saturation rate among low income customers and customers in rural areas;

e. Incorporation, as necessary, of the results of Case 12-G-0297; and

f. Determination of how the current Revenue Decoupling Mechanism and 90/10 sharing mechanism impact expansion.

Parties will collaborate for 90 days. No later than 30 days following the end of the collaborative, the Parties will file with the Commission a joint recommendation or, where there is a lack of consensus, individual positions. In addition, the Company will file a report with the Secretary summarizing the outcome of the collaborative.