STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission to Examine Programs to Address Energy Affordability for Low Income Utility Customers — **Case 14-M-0565**

PETITION OF THE CITY OF NEW YORK TO RE-EXAMINE STATEWIDE UTILITY LOW INCOME PROGRAM DISCOUNTS

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PRELIMINARY STATEMENT

The City of New York ("City") hereby petitions the Public Service Commission ("Commission") to re-examine the low income customer discounts provided by the major utilities approved by the Commission in the Low Income Order[1] and Rehearing Order.[2] As explained herein, the City respectfully submits that the current low income program discount levels fail to achieve the Commission's policy goals as set forth in the Low Income Order. Specifically, the City requests that the Commission revisit the assumptions that are used to calculate the low income discounts to better achieve the Commission's goals. Moreover, the City also requests modifications to the process set forth by the Commission when a utility's low income program cap is exceeded.

In the Low Income Order, the Commission adopted a target energy cost burden of 6% for all low income New Yorkers.[3] Energy cost burdens are a function of the amount of energy consumed, the utility electric and/or natural gas rates charged to consumers net of support programs, and the amount of income earned. New York State has some of the highest electricity

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1 Case 14-M-0565, *Proceeding on Motion of the Commission to Examine programs to Address Energy Affordability for Low Income Utility Customers*, Order Adopting Low Income Program Modifications and Directing Utility Filings (issued May 20, 2016) ("Low Income Order").

2 Case 14-M-0565, *supra*, Order Granting in Part and Denying in Part Requests for Rehearing (issued February 17, 2017) ("Rehearing Order").

3 *Id.*

prices in the country.[4] The inability of customers to pay utility bills has been shown to have serious health and economic impacts. For example, energy unaffordability has been linked to chronic stress and depression, exacerbated chronic health issues such as asthma, and negative financial repercussions such as damage to credit, which can lead to housing insecurity.[5] New York State's low income residents are already facing limited resources, and as a result, individuals and families are forced to make trade-offs among paying for basic necessities, such as rent, utilities or food. Access to reliable and affordable energy is a basic human need, not a luxury. However, as electric and natural gas utility rates continue to climb, New Yorkers will need to spend exceedingly more of their income on their energy bill(s) which, all else equal, would lead to a rising energy cost burden.

The City recognizes that reducing the energy cost burden for low income New Yorkers is a complex, multi-faceted issue that cannot be achieved through a single solution. In fact, the Commission stated that "[c]losing such a wide gap for 2.3 million low income households is a non-trivial pursuit, and will require a comprehensive effort that involves all of the tools at the State's disposal, including, but not limited to, utility ratepayer-funded programs."[6] While this is a laudable vision, there is also the need for near-term actions coupled with longer-term strategies to mitigate this issue. For example, many low income families, particularly in urban areas, rent their living space, and thus have limited or no control over what, if any, energy efficiency or distributed energy

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4 *See* U.S. Energy Information Administration, Table F21: Electricity Price and Expenditure Estimates 2018, *available at*: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_pr_es.html&sid=US.

5 *See* Diana Hernandez, *et al.*, *Energy Burden and the Need for Integrated Low-Income Housing and Energy Policy* Poverty Public Policy (November 2010), available at www.ncbi.nlm.nih.gov/pmc/articles/PMC4819257/.

6 Low Income Order at 8-9.

resources measures can be added to their homes. Further, energy efficiency and distributed energy investments can take several years, but low income customers are faced with the burden of increasing energy bills in real-time. Therefore, the Commission must act now to ensure existing bill discounts are calculated accurately to reflect need. As demonstrated herein, the City asserts that a critical component of energy affordability is to ensure that the bill discounts provided by the utilities through energy affordability programs are more accurately set to make an appreciable difference to low income New Yorkers.

BACKGROUND

In 2015, the Commission instituted this proceeding to examine statewide utility low income programs to ensure that such programs were "consistent with [the Commission's] statutory and policy objectives, reflect best practices, and effectively improve energy affordability for low income households while efficiently using ratepayer funds."[7] In the Instituting Order, the Commission directed Staff to issue a report making recommendations for the design and implementation of utility low income programs statewide.[8]

Staff subsequently issued the report, which contained a straw proposal for a statewide approach to low-income programs, including "eligibility, enrollment processes, benefit structures, rate discount levels, budgeting, treatment of participant arrears, and reconnection fees," and after a public comment period, the Commission issued the Low Income Order adopting a framework for the state's regulatory policy for utility low income programs, which includes a goal that no low income resident should have an energy cost burden that exceeds 6%.[9]

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[7] Case 14-M-0565, *supra*, Order Instituting Proceeding (issued January 9, 2015), p. 3 ("Instituting Order").

[8] Instituting Order at 5.

[9] Low Income Order at 2.

In the Low Income Order, the Commission made several references to future phases wherein the Commission would be open to revising the low income programs. For example, regarding the low income discount levels, the Commission stated, "[b]etter methods of identifying and targeting discounts based on differing levels of need are among the improvements that may be made in later phases."[10] As demonstrated herein, the City has identified refined methods to assess need and define appropriate discount levels. Accordingly, the City submits that the time is now ripe to revisit the discounts, as contemplated by the Low Income Order.

The City is a staunch advocate for low income customers. With approximately 40% of New York City residents living at or below the poverty line,[11] the City has championed policies to help its most vulnerable populations in both generic and rate proceedings before the Commission for many years. Additionally, the City's Human Resources Administration ("HRA") is the nation's largest social services agency dedicated to fighting poverty and income inequality by providing New Yorkers in need with essential benefits.

Pertinent to this Petition, HRA administers energy assistance benefits through the Home Energy Assistance Program (HEAP) and assists low income homeowners and renters in paying bills for electricity, heating fuel, energy equipment, and related repairs and replacements. HRA also administers the Emergency Utility and Intervention Program, which assists those who are elderly, blind, disabled, mentally impaired, and/or residing in neglected, and/or hazardous environments with financial assistance for energy bills. Additionally, HRA facilitates the low income discount program matches for Consolidated Edison Company of New York, Inc. ("Con

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[10] Low Income Order at 20.

[11] *OneNYC 2050: Building a Strong and Fair City* (issued April 2019), p. 28, *available at*: http://1w3f31pzvdm485dou3dppkcq.wpengine.netdna-cdn.com/wp-content/uploads/2019/10/OneNYC-2050-Full-Report-10.3.pdf.

Edison"), Brooklyn Union Gas Company d/b/a National Grid NY and KeySpan Gas East Corporation d/b/a Brooklyn Union of L.I. (collectively, "National Grid"). Quarterly, HRA automatically identifies customers who are eligible for participation in the Con Edison and National Grid low income programs and sends the newly-identified individuals a letter to opt-out of the low income program.[12] This matching process results in stronger low income program enrollment, as it auto-captures a wide net of eligible customers, and helps to ensure that customers in need are receiving the benefits available to them in a timely fashion.[13]

DISCUSSION

POINT I

THE CURRENT LOW INCOME DISCOUNT LEVELS DO NOT ACHIEVE A 6% ENERGY BURDEN FOR LOW INCOME CUSTOMERS

In 2019, the New York City Mayor's Office of Economic Opportunity and the Mayor's Office of Sustainability conducted an energy cost burden study ("Study") to assess the effectiveness of the current utility low income discount levels in reducing low income families' energy cost burdens to no more than 6% of pre-tax income. As described in further detail herein, the results of the Study demonstrated that the pool of low income energy cost burdened families

[12] For National Grid, the match process is currently performed twice a year, as the City's proposal to increase the match frequency to quarterly is still under review in the National Grid rate cases (Cases 19-G-0309, *et al.*, Prepared Direct Testimony of the New York City Low Income Panel, (August 30, 2019), pp. 36-38).

[13] In both the 2019 Con Edison Electric and Gas Rate Cases (Cases 19-E-0066, *et al.*) and the 2019 National Grid Gas Rate Cases (Cases 19-G-0309, *et al.*), the City submitted testimony proposing to perform the utility low income program match twice as often (quarterly) in an effort to improve the accuracy of the utility low income program customer enrollment to ensure that people who are newly-qualified for the programs are enrolled and receive the discount sooner.

in New York City is staggering, and the current discount levels are insufficient to achieve the Commission's stated goal.

A. The City's Study: Data and Assumptions[14]

To conduct the Study, the City used publicly available 2017 Public Use Micro Sample data, which is part of the American Community Survey ("ACS"). The ACS is conducted by the United States Census Bureau ("Census Bureau") on an ongoing basis and asks a representative sample of Americans questions related to income, housing, and other topics. The ACS is designed to provide measures of socioeconomic conditions on an annual basis for city/municipality level data. The ACS uses a weighting method to ensure that its estimates are consistent with official Census Bureau population estimates by age, sex, race, and Hispanic origin, as well as estimates of total housing units.

The City chose to use ACS data for the Study for several reasons. First, the ACS is a standard, industry accepted tool for measuring need. According to the Census Bureau, information from the ACS generates data that assists in determining how more than $675 billion in federal and state funds are distributed each year.[15] Second, the ACS offers a statistically representative sample of families for New York City. Finally, the ACS includes data useful for the purposes of the Study. For example, in questions related to housing, the ACS asks respondents to report the cost incurred for electricity and gas in the previous month and the cost incurred for fuel oil or kerosene in the past 12 months. Because costs are reported as incurred (also referred to as "out-of-pocket" costs),

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[14] *See* Cases 19-E-0066, *et al.*, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations for Electric and Gas Service*, Prepared Direct Testimony and Exhibits of the New York City Low Income Panel (May 2019).

[15] *See* United States Census Bureau, About the American Community Survey, *available at*: https://www.census.gov/programs-surveys/acs/about.html.

they are presumed to be net of any direct utility discounts. The ACS data also includes income from wages, transfer payments, self-employment, retirement income, and investment.

For purposes of the Study, the City defined energy cost burden as the sum of: (1) reported out-of-pocket monthly natural gas expenses multiplied by 12; (2) reported out-of-pocket monthly electricity expenses multiplied by 12; and (3) reported annual other energy expenses, such as fuel oil or kerosene purchases, minus an estimated HEAP benefit, divided by annual pre-tax income. Tax credits and non-cash subsidies are not included in the income calculation.

The City's Study is conducted at the family level. A family is defined as a resource sharing unit composed of related individuals and domestic partners. This is different from a household, since multiple families, subfamilies or unrelated individuals may reside in the same domicile. A family is determined to be energy cost burdened if its energy cost burden is greater than 6% of its pre-tax income.

The low income threshold used in the study is 60 percent of New York State Median Income (SMI), which is the maximum income eligibility for HEAP (the assistance program with the highest income cutoff that enables participation in Con Edison's low income programs). This is also the same income threshold utilized in the Commission's Low Income Order.

B. The City's Study: Methodology

The City's analysis was conducted in a programming language for statistical computing and data visualization called "R," which is supported by the R Foundation for Statistical Computing.[16] The general methodology for the study was as follows:

[16] The "R" Code used in the City's analysis is attached hereto as Appendix A.

1. Group quarters were eliminated from the base population data and family units were superimposed on the census households.[17] Group quarters include facilities like prisons, college dorms, nursing homes, and homeless shelters where costs are typically shared over the institution and are not billed directly to tenants or residents.
2. Variables were created to represent annual utility expenses. For fuel oil, the number reported in the ACS is already annualized. For electric and gas, the recorded response was multiplied by 12.
3. Variables were created for all utilities, which is the sum of these values, minus a HEAP estimate. The HEAP estimate used is the average non-emergency, or "Regular" HEAP benefit[18] paid to New York City residents in the 2017 HEAP season, or $45.47.
4. A variable called "utility burden" was created, which divides the sum of all utilities by pre-tax income for each family. If that ratio is greater than 6%, the family is considered energy cost burdened.
5. Variables that represent whether, based on family size, a family is below 60 SMI were created.
6. Finally, output tables were generated that provide the number of utility burdened families that are below 60 SMI.

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[17] The ACS microdata file lists all residents residing in a housing unit. NYC Opportunity divides each non-group quarters household into resource sharing units. These units are comprised of extended families including unmarried partners (based on relationship indicators in the census data). The units are also known as "poverty units" because they are used to generate a poverty rate based on how resources and living expenses are shared in the household. A detailed explanation of creation of poverty units and how they differ from a census household can be found at: https://www1.nyc.gov/assets/opportunity/pdf/NYCgovPoverty2019_Appendix_A.pdf.

[18] For an explanation of the differences between Regular (non-emergency) and Emergency Heap benefits, *see*: https://otda.ny.gov/programs/heap/.

The results of the City's analysis provide the number of low income NYC families that are energy cost burdened.

C. The City's Study: Findings

The Study determined that there are 484,375 low income families in New York City that pay over 6% of their income toward energy utilities. Given that the average family size in New York City is approximately 2.26, this represents over 1 million New Yorkers who are energy burdened. This is a significant number of families that are struggling to afford their utility bills. The City believes that this number likely underestimates the number of low income energy cost burdened families. This is because the City's numbers are based on out-of-pocket spending and does not factor in the large number of New York City families who indirectly pay for energy utilities through their rent, which is a common practice that landlords use for allocating heating expenses for residents in multi-family buildings.

The City's Study accounted for receipt of the current New York City utility low income discounts in reviewing customer energy cost burdens. Despite the existence of the utility low income discounts, nearly half a million low income families (14% of all families in New York City) continue to be energy cost burdened. Such an outcome is inconsistent with the intent and directives included in the Commission's Low Income Order and Rehearing Order. Accordingly, as explained more fully below, the City respectfully submits that there must be modifications to the methodology for calculating the utility low income program discount levels in order to move the low income customer energy cost burden closer to 6%, consistent with the Commission's directives.

POINT II

THE LOW INCOME DISCOUNT CALCULATION MUST BE MODIFIED TO ACHIEVE THE COMMISSION'S ENERGY COST BURDEN GOAL

In conducting the Study, the City observed several significant and problematic issues with the assumptions that the utilities, Con Edison and National Grid in particular, use to calculate the low income discount levels. Specifically, using inaccurate, flawed, and stale data in the model results in discount levels that are insufficient to resolve the energy cost burden issue for hundreds of thousands of New Yorkers. To be clear, at this time, the City is not requesting that the Commission make any changes to the tiered low income program structure or the overarching methodology used to arrive at the low income discounts.

While the City has reservations regarding whether the current structure and methodology are the most appropriate and effective ways to achieve the Commission's six percent energy burden goal, in an effort to expeditiously achieve relief for low income customers, the City is only recommending changes to several of the assumptions used within the existing methodology. The City's requested relief falls squarely within the Commission's prior acknowledgment that "[b]etter methods of identifying and targeting discounts based on differing levels of need are among the improvements that may be made in later phases."[19]

As described below, the City takes issue with the following assumptions: (i) income level; (ii) average monthly utility bill; and (iii) HEAP discount level. While the City offers alternative assumptions herein, it has not performed any statewide analyses to determine if these assumptions are appropriate outside of New York City. However, the City has chosen assumptions that can be replicated statewide annually and plugged into the current low income discount workbook formula.

[19] Low Income Order at 20.

A. The Current Discount Methodology Incorrectly Assumes That All Low Income Customers Receive The Highest Qualifying Income Level

Pursuant to the Low Income Order, the utilities' Tier 1 discount methodology assumes a family of two persons and that the family is earning at the "upper limit of income eligibility for the HEAP program," which, as described above, is 60 SMI.[20] In 2018, 60 SMI in New York for a two person family was $36,368.[21] In reality, many low income customers earn well below the maximum 60 SMI threshold. Indeed, as described in the analysis below, the ACS data revealed that the median income for New York City families eligible for a Tier 1 discount was $28,062 in 2018.[22] A similar issue exists for Tier 3 discounts, where the income assumption is based on the upper limit of the Tier 1 HEAP eligibility, which is tied to 130% of the Federal Poverty Level ("130 FPL"). This misalignment between assumed and actual income levels results in the inaccurate conclusion that low income customers have higher incomes, thus leading to lower discount levels that do not achieve a 6% energy cost burden.

As the Commission observed in the Low Income Order, "the energy burden faced by low income households […] increases dramatically as household income decreases."[23] A discount level that may achieve a six percent energy burden for a household earning $36,000 per year is materially different than the discount level needed to achieve the same energy burden for a household earning less per year. Basing the discount levels on the maximum point of the income

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20 *Id.* at 17.

21 New York State Low-Income Forum on Energy, Home Energy Assistance Program 2017-2018 Update (October 25, 2017), *available at*: https://www.nyserda.ny.gov/-/media/Files/EDPPP/LIFE/Webinar/20171025-HEAP-Updates.pdf.

22 *See* United States Census Bureau, American Community Survey Data: Public Use Microdata Sample (PUMS) Documentation, *available at*: https://www2.census.gov/programs-surveys/acs/data/pums/2018/1-Year/. This data was processed pursuant to the R Code in Appendix A.

23 Low Income Order at 4.

tier to qualify for the HEAP program means that only those customers at the top of the eligibility threshold will have their energy cost burden resolved, which fails to help the most vulnerable New Yorkers struggling at the mid- to lower end of the income eligibility tier. Simply put, the current method for calculating income assumptions in determining the appropriate utility low income discount is ineffective and inequitable.[24]

While the City acknowledges that it would be impossible to provide individualized discount amounts for each low income customer based on actual income, using a more accurate income assumption would be a significant step in the right direction toward achieving the Commission's stated goals. The City submits that a more appropriate approach is to base the income assumptions on the median income level for low income families in each category. For example, the income level for Tier 1 discount recipients would be based on the median income for families between 130 FPL and 60 SMI. Additionally, Tier 3 discounts would be based on median incomes for families under 130 FPL.

The City maintains that calculating Tier 2 incomes remains a challenge due to the inability to assess which families have a vulnerable member and therefore support continuing to calculate Tier 2 income as the median of Tier 1 and Tier 3. Based on the City's analysis, modifying the income thresholds in the discount methodology in this manner would result in achieving a 6% energy cost burden for half of the customers in each category. While this would not provide a 6% energy cost burden to all low income customers, it would be significantly more accurate as compared to what is currently in place, and would provide more vulnerable customers with more relief.

[24] One should be cautious not to conflate the use of accurate income assumptions for calculating the baseline utility low income discount with inclusion of a HEAP "adder" in the tiered low income discount structure.

It is the City's understanding that the utilities currently do not use median incomes due to perceived data constraints.[25] In fact, in the Rehearing Order, the Commission stated that to "maintain a relatively simple design, the Commission chose to reference the maximum [income] level, as it is easily identified. Utilities do not have the information necessary to calculate the average income of HEAP recipients of various household sizes."[26] However, this data does exist and is now readily available to the utilities. ACS provides annual data on incomes from which this calculation can be derived.[27] The City recommends using the following approach to calculate the low income discount income assumptions as recommended above:

1. Department of Public Service ("DPS") Staff or the utility would download the New York State ACS files.
2. The entity manipulating the data would apply a filter based on a geographic indicator (*e.g.* Public Use Microdata Area) to limit the data set to the utility territory of interest.

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[25] Cases 19-G-0309, *et al.*, *In the Matter of the Brooklyn Union Gas Company d/b/a National Grid NY & KeySpan Gas East Corporation d/b/a National Grid*, Rebuttal Testimony of Staff Consumer Services Panel (September 18, 2019), p. 6.

[26] Rehearing Order at 30-31. In the Rehearing Order, the Commission noted that it was adopting an approach (which is described more fully *infra*) that grosses up the average customer's bill usage by 10% to account for concerns that "customers might consume above average; however, it also functions to address variances in income below the maximum." *Id.* For the reasons discussed in Point II.b, the City is recommending that this usage inflation be removed. However, the City submits that contrary to the Rehearing Order, inflating customer usage is mutually exclusive from income assumptions for purposes of calculating discount levels. The two inputs are not related and have no bearing on one another. Given the availability of information to determine median income levels, application of this rational set forth in the Rehearing Order is now moot.

[27] *See* United States Census Bureau, American Community Survey Data: Public Use Microdata Sample (PUMS) Documentation, *available at*: https://www2.census.gov/programs-surveys/acs/data/pums/2018/1-Year/.

3. Families would then be sorted based on reported incomes and family size and composition to determine the families that fall in the range of less than 60 SMI and less than 130 FPL.
4. Families would then be sorted based on whether they pay electric or gas bills to identify whether they are likely a utility customer in that service territory.
5. A median income would then be derived for families between 60 SMI and 130 FPL for calculating Tier 1 discounts, and a median income for families under 130 FPL would then be derived for calculating Tier 3 discounts.

The detailed R code that was used to derive New York City income thresholds is provided in Appendix A for ease of replication in other utility territories.

The City's analysis using 2018 data found that Tier 1 families paying for utilities in the Con Edison service territory have a median income of $28,062 and Tier 3 families have a median income of $11,144. This compares to the $37,524 and $21,398, respectively, used by Con Edison in calculating the current utility low income discounts.[28] Similarly, Tier 1 families paying for gas in the National Grid service territory have a median income of $31,102, and Tier 3 families have a median income of $12,765. As one can see, there is a substantial deviation in the income assumptions when using the maximum versus the median income eligibility threshold. This deviation illustrates the need for more accuracy, which would result in more meaningful and effective discount levels. Accordingly, the City recommends that the utilities be directed to modify

[28] Cases 19-E-0065, *et al.*, *Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service*, Direct Testimony of the New York City Low Income Panel (filed May 24, 2019) at Exhibit_(LIP-4), p. 6.

their low income discount workbook assumptions to use the median income given that such data for doing so is readily available on an annual basis.

B. Using Historical Average Monthly Bills Inaccurately Represents Current Monthly Bill Levels

In the Low Income Order, the Commission directed that the "affordability block on which discounts are based is equal to 110% of a 12-month levelized bill for the respective average monthly heating and non-heating electric and gas usage, as calculated by each utility for its residential customers."[29] The Commission stated that it was adopting this approach to address concerns that "average usage may not be a sufficient basis for the discount calculation."[30] Importantly, the Commission held that this input can be revisited in the future "if experience under this structure indicates that further adjustment is warranted."[31]

In practice, the City has observed that some utilities use two to three years of historical data to derive customer average bills, which is problematic for several reasons. First, using historic bills ignores the impact of rate increases that occur after that time. For example, using a 2017 bill to determine an appropriate 2020 discount level will lead to discount levels that are too low because they do not reflect the actual or projected customer bills, which are inclusive of rate increases from 2018 through 2020. Further, if historical bills were higher than current bills due to extreme weather or other unique circumstances, customers may see a steep decline in their discount level at the time discounts are updated, which is not necessarily reflective of normal conditions.

This issue was highlighted in a recent order issued by the Commission in response to a petition submitted by National Grid. National Grid petitioned the Commission requesting a change

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[29] Low Income Order at 23.

[30] *Id.* at 22.

[31] *Id.*

to the methodology it uses to reduce low income discounts.[32] National Grid originally calculated its discounts using 2016, 2017, and 2018 data, but upon direction of the Commission, recalculated discount levels using more recent bill data.

In recalculating its average bills, National Grid noticed that the "change in average bill amounts during this period was significant, due in large part to the high bills attributed to the extremely cold winter season in 2014."[33] This "decline in average bill amounts drove a significant reduction in the amount necessary to achieve a six percent energy burden – indeed, the average bill amounts decreased by 23% while the calculated discount decreased 73%.[34] In its order, the Commission recognized that this sudden drop in discount amount would have a negative impact on customers, and the Commission created a 20% cap on low income discount level reductions each year to protect customers from potential unexpected drastic discount level reductions.[35]

As demonstrated above, using historical data as an assumption for calculating future bill discount levels can result in inaccurate and insufficient discounts. By way of example, taking calendar year 2019, the Brooklyn Union Gas Company d/b/a National Grid ("KEDNY") used a historic bill of $115 per month to set its low income discounts. For calendar year 2020, KEDNY updated this input to $139 per month, but this figure reflects a three-year average of monthly bills. However, current, actual KEDNY heating bills are approximately in the $150 per month range.[36] Thus, even with the 2020 reset, bill discounts are being calculated using an assumed average

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[32] *See* Case 19-M-0350, *Petition of Niagara Mohawk Power Corporation d/b/a National Grid; The Brooklyn Union Gas Company d/b/a National Grid NY; and KeySpan Gas East Corp. d/b/a National Grid*, Order Approving Petition (issued October 18, 2019) ("Discount Order')

[33] Discount Order at 5.

[34] *Id.*

[35] *Id.* at 9.

[36] *See, e.g.* Cases 19-G-0309, *et al*, Exhibit_RDP-4R at Schedule 4.

monthly bill that is at least 8% lower than the customer's actual monthly bill – meaning discounts are by definition too low.[37] Closing the gap between this misalignment in historical versus actual or projected bills would align the low income discount levels with the actual monthly bills that customers are paying, as opposed to the current scheme where discount levels are aligned with rates that customers *were* paying up to three years ago.

Accordingly, the City recommends that the Commission direct the utilities to calculate low income discount levels using weather normalized forward bill estimates. To accomplish this, discounts should be based on the estimated bill impact tables that utilities provide for each service class as part of their initial filings in every rate case.[38] The utilities would determine the average low income usage and determine the corresponding estimated bill for the appropriate service class. This forward-looking information would provide more realistic and accurate bill assumptions than prior bills because it would be unaffected by historical weather anomalies and would incorporate anticipated future rate increases.

Further, using weather normalized future estimates is likely to have less variability than historical data, thus insulating customers from insufficient and/or widely inconsistent discount levels, and providing better financial stability. In addition, this is data that all of the utilities provide, which would allow this methodology to be standardized across utilities statewide.

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[37] The City says *at least* 8% lower because KEDNY is in the middle of a rate proceeding, and it is prudent to assume that KEDNY's rates will increase again, perhaps as early as June or July of this year. Assuming that happens, and unless the Commission directs otherwise in the rate proceeding, these rate increases will not be factored into the low income discount calculations until 2021, at the earliest. This means the affordability gap will continue to widen and low income customers will come under additional pressure, including during the winter months towards the end of 2020.

[38] *See, e.g.* Cases 19-G-0309, *et al.*, Exhibit_RDP-4R at Schedule 4. To the extent a utility does not file for new rates when it is eligible to do so, the utility should be directed to file an annual update to its average monthly bill calculation within this proceeding to reflect anticipated bills for the forthcoming year.

Finally, the City offers that if discount levels were calculated using weather normalized forward bill estimates, it would deem it appropriate to eliminate the need to use 110% of 12-month levelized bills, thus, doing away with the 10% inflation.

C. The Maximum HEAP Discount Level Is Not Received By Most New Yorkers

The utilities' discount methodology also assumes that each low income customer receives the maximum HEAP discount, which presumes that all low income customers pay out-of-pocket for heat. However, not every eligible low income customer receives a full, or even partial, HEAP payment. In fact, most low income customers in New York City do not pay directly for heat, and thus are not eligible to receive the maximum level HEAP benefit even though their heating expenses are likely passed through in their rent. For example, Con Edison and National Grid use an assumed HEAP receipt base of $350. However, the average non-emergency HEAP benefit received by low income families in NYC reported by the Office of Temporary and Disability Assistance ("OTDA") was $42.02.[39]

Similar to using an artificially inflated income level, using an overstated HEAP discount also skews the amount of resources low income customers are presumed to have to pay for utilities, resulting in insufficient low income discounts. Accordingly, the City suggests modifying the discount calculations to reflect the HEAP benefits that different customers are likely to receive. Gas and electric heat discounts should be based on the full HEAP benefit as is currently done in the existing methodology. Gas non-heat discounts, however, should be based on the $35 HEAP

[39] *See New* York State Office of Temporary and Disability Assistance, *Temporary and Disability Assistance Statistics* (September 2017), p. 28, Table 26, *available at*: https://otda.ny.gov/resources/caseload/2017/2017-09-stats.pdf. The City's HEAP analysis using Table 6 is attached hereto as Appendix B. This estimate is based on the non-emergency heating benefit. The average excludes cooling assistance and non-emergency HEAP benefits which have additional programming requirements and are not uniformly available.

benefit available to households who do not directly pay for their heat as it is unlikely that these customers receive a full HEAP discount. Additionally, in areas such as New York City, where different utilities provide electric and gas service and the electric utility may be unaware of the heating status of its customers, the City advises that electric discounts be based on OTDA caseload statistics – *i.e.*,. $42.02 for New York City.

It is important to note that the City has not performed an analysis to determine if New York City's experience with HEAP discount levels (where the vast majority of customers do not receive a full HEAP benefit) is representative of a statewide issue. The City therefore recommends that the Commission direct the utilities to study in each of their respective service territories if a similar issue exists. Where the issue is present, the City recommends exploring whether the modifications suggested above should be implemented statewide.[40] In the event that this issue is only a concern for New York City utility customers, a one-size-fits-all approach would be deemed inappropriate in this instance, and the City recommends that the Commission direct Con Edison and National Grid to use the suggested approach for calculating discount levels.

POINT III

THE PROCESS THAT IS TRIGGERED WHEN THE LOW INCOME PROGRAM BUDGET IS EXCEEDED SHOULD BE MODIFIED TO ENSURE THE MOST VULNERABLE CUSTOMERS CONTINUE TO RECEIVE ADEQUATE ASSISTANCE

In the Rehearing Order, the Commission clarified the following:

> . . . when a utility's program is at risk of exceeding the budget cap, it should first, eliminate any arrears forgiveness programs and/or reconnection fee waiver programs; and then withdraw the $3.00 minimum discount, and apply only the discount amounts necessary to achieve the 6% energy burden.

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[40] To the City's knowledge, OTDA disaggregates New York City HEAP recipient data from the rest-of-state data, but does not do so for other municipalities.

> The Commission affirms that, after those steps have been taken, if the budget required to achieve the 6% energy burden level still exceeds the funding limit, the target energy burden shall be increased (and discount levels correspondingly decreased) until the funding limit is met. The Low-Income Order also presented an energy burden floor, as described in the Staff Report, such that the monthly average bill discount would provide a discount that produces no more than a 10% energy burden. As described in the Staff Report, if 10% energy burden is reached, the funding limits would be exceeded; however, this would also trigger a reexamination of the program parameters by the Commission, to determine if further adjustments are warranted.[41]

In reexamining the assumptions used to calculate the low income discounts, the City deems it appropriate to also re-examine the process that is invoked when a utility reaches its low income program budget cap – which the Commission set as 2% of the utility's total electric or gas revenues for sales to end-use customers.[42]

As a threshold matter, the City submits that arrears forgiveness programs and/or reconnection fee waiver programs should not be the first line of defense when mitigating the impact of exceeding the budget cap. These programs provide assistance to the most vulnerable customers that are not able to pay their bills. Instead, the City recommends that when the budget cap is reached, the utility first increases the energy burden to above 6%.

Pursuant to the Commission's current procedure, a customer's energy burden is permitted to rise to 10% before the Commission is required to reexamine the program parameters to determine if further adjustments are warranted. The City submits that allowing the energy burden for low income customers to reach 10% is an intolerable threshold. The question of whether program adjustments are merited should be addressed sooner as a consumer protection safeguard. Allowing a customer's energy burden to rise significantly can have a cascading impact on how

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41 Rehearing Order at 21.

42 *Id.* at 17.

low income customers continue to afford basic needs. Accordingly, the City requests that the threshold for Commission reexamination be lowered to 8%.

Moreover, if adjustments to the 6% energy cost burden are made to accommodate a lack of program funding because of the 2% cap, there is no mechanism by which the actual energy cost burden used to calculate the discounts is disclosed and communicated to ratepayers.[43] Accordingly, the City recommends that going forward, as part of the utility's annual compliance filing on its low income program discounts, each utility include a section that provides the energy cost burden intended to be achieved by the discount and used to calculate the discount amount. Not only would reporting on this data point provide increased transparency, it would also allow stakeholders to track how customer energy cost burdens are trending year over year.

For the foregoing reasons, the City submits that modifications to the budget cap process are necessary to protect low income customers and ensure that low income program benefits are not inaptly eliminated without Commission review and approval.

[43] For example, in developing KEDNY's 2020 low income program discounts, KEDNY increased its energy burden from 6% to 6.4% to stay under the 2% budget cap. (*See* Cases 19-G-0309, *et al.*, Prepared Supplemental Testimony of the Staff Consumer Services Panel (January 2020), pp. 4-5.) However, this increase to the energy burden for KEDNY customers was not included in any annual reporting filed with the Commission pertaining to its low income program discounts.

CONCLUSION

As observed by the Commission, "[e]nsuring adequate [energy] access for those who face financial difficulties is a public concern, because the utility and societal cost of leaving the economically disadvantaged without such access can be much greater than the cost of maintaining utility service for these customers."[44] As the City has demonstrated herein, the current low income discounts are insufficient and do not achieve the Commission's 6% energy burden target. For the foregoing reasons, the City respectfully urges the Commission to re-open this proceeding and modify the assumptions used to calculate the low income discounts as discussed herein, as well as the process when the budget cap is exceeded, so as to provide the appropriate relief to hundreds of thousands of New Yorkers faced with energy cost burdens in excess of 6%.

Respectfully submitted,

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Dated: January 31, 2020

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Dated: January 31, 2020

[44] Low Income Order at 45.

APPENDIX A

```
library(Hmisc)
options(scipen=999)
PP<-read.csv("\\\\chnetappfs01/PLANYC2030/Energy/27 Energy Cost Burden/Generic Petition/2018
Data/psam_p36.csv",stringsAsFactors = F)
# REMOVE COLUMNS IN PERSON DATA DUPLICATED IN HOUSEHOLD DATA
PP<-PP[!colnames(PP)%in%c("RT","DIVISION","PUMA","REGION","ST","ADJINC")]
#PP$SERIALNO<-as.character(PP$SERIALNO)
# Adjust serialno
PP$serialno_orig<-PP$SERIALNO
# PP$SERIALNO <-substr(PP$serialno_orig,7,13)
# PP$SERIALNO<-as.integer(PP$SERIALNO)
# PP[1:10,c("SERIALNO","serialno_orig")]

HH<-read.csv("\\\\chnetappfs01/PLANYC2030/Energy/27 Energy Cost Burden/Generic Petition/2018
Data/psam_h36.csv",stringsAsFactors = F)
HH$serialno_orig<-HH$SERIALNO
# HH$SERIALNO <-substr(HH$serialno_orig,7,13)
# HH$SERIALNO<-as.integer(HH$SERIALNO)
# HH[1:10,c("SERIALNO","serialno_orig")]

#HH<-HH[,-c("serialno_orig")]
# MERGE PERSON & HOUSEHOLD DATA INTO ONE DATASET
NY_ALL<-merge(PP,HH,by=c("SERIALNO"),all.x=T)

# set all pre-existing variables to lowercase to simplify programming
vars<-names(NY_ALL)
newvars<-tolower(vars)
names(NY_ALL)<-newvars

NY_ALL$Boro<-0
#BRONX
NY_ALL$Boro[NY_ALL$puma%in%c(3701:3710)]<-1
#BROOKLYN
NY_ALL$Boro[NY_ALL$puma%in%c(4001:4018)]<-2
#MANHATTAN
NY_ALL$Boro[NY_ALL$puma%in%c(3801:3810)]<-3
#QUEENS
NY_ALL$Boro[NY_ALL$puma%in%c(4100:4114)]<-4
#STATEN ISLAND
NY_ALL$Boro[NY_ALL$puma%in%c(3901:3903)]<-5
#ELSEWHERE
NY_ALL$Boro[NY_ALL$puma%in%c(3701:3710,3801:3810,3901:3903,4001:4018,4100:4114)==FALSE]<-6

# REMOVE 'GROUP QUARTERS' RECORDS
NY_grpqtrs<-NY_ALL[NY_ALL$type%in%c(2,3),]
# NY STATE WITHOUT 'GROUP QUARTERS' RECORDS
NY<-NY_ALL[NY_ALL$type==1,]

# SEPARATE NY CITY
NYC<-NY[NY$Boro<6,]
# SEPARATE NY STATE EXCLUDING NYC DATA
NY_excl_NYC<-NY[NY$Boro==6,]

setwd("\\\\chgoldfs/pru/Utilities/GAS_TABLES/")


# For purposes or replication - this is how we create the 'adjusted' income variables
# in the NYCgov Poverty report:

# adjusted household income
   NYC$inchh = NYC$hincp * (NYC$adjinc/1000000)
# adjusted person earnings income
   NYC$incpers = NYC$pernp * (NYC$adjinc/1000000)

# Household-level Earnings Income
   MM<-aggregate(NYC$incpers,by=list(NYC$serialno),FUN=sum)
   colnames(MM)<-c("serialno","Earnings_HH")
   NYC<-merge(NYC,MM,by=c("serialno"),all.x=T)


   ######################################################
   #   60% NY STATE MEDIAN INCOME (2018 Values)
   ######################################################
   NYC$SMI_limit_HH<-NULL
   NYC$SMI_limit_HH[NYC$np==1] <- 27811
   NYC$SMI_limit_HH[NYC$np==2] <- 36368
   NYC$SMI_limit_HH[NYC$np==3] <- 44925
   NYC$SMI_limit_HH[NYC$np==4] <- 53482
   NYC$SMI_limit_HH[NYC$np==5] <- 62039
   NYC$SMI_limit_HH[NYC$np==6] <- 70596
   NYC$SMI_limit_HH[NYC$np==7] <- 72201
   NYC$SMI_limit_HH[NYC$np==8] <- 73805
   NYC$SMI_limit_HH[NYC$np==9] <- 75410
   NYC$SMI_limit_HH[NYC$np==10] <- 77014
   NYC$SMI_limit_HH[NYC$np==11] <- 80790
```

```
   NYC$SMI_limit_HH[NYC$np==12] <- 87060
   NYC$SMI_limit_HH[NYC$np==13] <- 93330
   NYC$SMI_limit_HH[NYC$np==14] <- 99600
   NYC$SMI_limit_HH[NYC$np==15] <- 105870
   NYC$SMI_limit_HH[NYC$np==16] <- 112140
   NYC$SMI_limit_HH[NYC$np==17] <- 118410
   NYC$SMI_limit_HH[NYC$np==18] <- 124680
   NYC$SMI_limit_HH[NYC$np==19] <- 130950
   NYC$SMI_limit_HH[NYC$np==20] <- 137220


# Elderly head of household (used in calculating official poverty threshold)
NYC$oldhead<-0
NYC$oldhead[NYC$relp==0 & NYC$agep>64]<-1
MM<-aggregate(NYC$oldhead,by=list(NYC$serialno),FUN=max)
colnames(MM)<-c("serialno","oldhead_hh")
NYC<-merge(NYC,MM,by=c("serialno"),all.x=T)

# number of children in household (used in calculating official poverty threshold)
# exclude people under 18 who are heads of household or spouse/partner from being counted as children
NYC$nkids<-0
NYC$nkids[NYC$relp%in%c(0,1,13)==F & NYC$agep<18]<-1
MM<-aggregate(NYC$nkids,by=list(NYC$serialno),FUN=sum)
colnames(MM)<-c("serialno","nkids_hh")
NYC<-merge(NYC,MM,by=c("serialno"),all.x=T)

########################################################
## OFFICIAL POVERTY THRESHOLD BY HOUSEHOLD (2018 Values)
########################################################

HH<-NYC[NYC$relp==0,]
HH$Off_Pov_Thrs_HH<-NULL

for (i in 1:nrow(HH)) {
  if (HH$np[i] == 1 & HH$agep[i] > 64)
  {HH$Off_Pov_Thrs_HH[i] <-12043
  } else if (HH$np[i] == 1 & HH$agep[i] < 65)
  {HH$Off_Pov_Thrs_HH[i] <-13064
  } else if (HH$np[i] == 2 & HH$oldhead_hh[i] == 1 & HH$nkids_hh[i] == 0)
  {HH$Off_Pov_Thrs_HH[i] <-15178
  } else if (HH$np[i] == 2 & HH$oldhead_hh[i] == 1 & HH$nkids_hh[i] == 1)
  {HH$Off_Pov_Thrs_HH[i] <-17242
  } else if (HH$np[i] == 2 & HH$oldhead_hh[i] == 0 & HH$nkids_hh[i] == 0)
  {HH$Off_Pov_Thrs_HH[i] <-16815
  } else if (HH$np[i] == 2 & HH$oldhead_hh[i] == 0 & HH$nkids_hh[i] == 1)
  {HH$Off_Pov_Thrs_HH[i] <-17308
  } else if (HH$np[i] == 3 & HH$nkids_hh[i] == 0)
  {HH$Off_Pov_Thrs_HH[i] <-19642
  } else if (HH$np[i] == 3 & HH$nkids_hh[i] == 1)
  {HH$Off_Pov_Thrs_HH[i] <-20212
  } else if (HH$np[i] == 3 & HH$nkids_hh[i] == 2)
  {HH$Off_Pov_Thrs_HH[i] <-20231
  } else if (HH$np[i] == 4 & HH$nkids_hh[i] == 0)
  {HH$Off_Pov_Thrs_HH[i] <-25900
  } else if (HH$np[i] == 4 & HH$nkids_hh[i] == 1)
  {HH$Off_Pov_Thrs_HH[i] <-26324
  } else if (HH$np[i] == 4 & HH$nkids_hh[i] == 2)
  {HH$Off_Pov_Thrs_HH[i] <-25465
  } else if (HH$np[i] == 4 & HH$nkids_hh[i] == 3)
  {HH$Off_Pov_Thrs_HH[i] <-25554
  } else if (HH$np[i] == 5 & HH$nkids_hh[i] == 0)
  {HH$Off_Pov_Thrs_HH[i] <-31234
  } else if (HH$np[i] == 5 & HH$nkids_hh[i] == 1)
  {HH$Off_Pov_Thrs_HH[i] <-31689
  } else if (HH$np[i] == 5 & HH$nkids_hh[i] == 2)
  {HH$Off_Pov_Thrs_HH[i] <-30718
  } else if (HH$np[i] == 5 & HH$nkids_hh[i] == 3)
  {HH$Off_Pov_Thrs_HH[i] <-29967
  } else if (HH$np[i] == 5 & HH$nkids_hh[i] == 4)
  {HH$Off_Pov_Thrs_HH[i] <-29509
  } else if (HH$np[i] == 6 & HH$nkids_hh[i] == 0)
  {HH$Off_Pov_Thrs_HH[i] <-35925
  } else if (HH$np[i] == 6 & HH$nkids_hh[i] == 1)
  {HH$Off_Pov_Thrs_HH[i] <-36068
  } else if (HH$np[i] == 6 & HH$nkids_hh[i] == 2)
  {HH$Off_Pov_Thrs_HH[i] <-35324
  } else if (HH$np[i] == 6 & HH$nkids_hh[i] == 3)
  {HH$Off_Pov_Thrs_HH[i] <-34612
  } else if (HH$np[i] == 6 & HH$nkids_hh[i] == 4)
  {HH$Off_Pov_Thrs_HH[i] <-33553
  } else if (HH$np[i] == 6 & HH$nkids_hh[i] == 5)
  {HH$Off_Pov_Thrs_HH[i] <-32925
  } else if (HH$np[i] == 7 & HH$nkids_hh[i] == 0)
  {HH$Off_Pov_Thrs_HH[i] <-41336
  } else if (HH$np[i] == 7 & HH$nkids_hh[i] == 1)
```

```
  {HH$Off_Pov_Thrs_HH[i] <-41594
  } else if (HH$np[i] == 7 & HH$nkids_hh[i] == 2)
  {HH$Off_Pov_Thrs_HH[i] <-40705
  } else if (HH$np[i] == 7 & HH$nkids_hh[i] == 3)
  {HH$Off_Pov_Thrs_HH[i] <-40085
  } else if (HH$np[i] == 7 & HH$nkids_hh[i] == 4)
  {HH$Off_Pov_Thrs_HH[i] <-38929
  } else if (HH$np[i] == 7 & HH$nkids_hh[i] == 5)
  {HH$Off_Pov_Thrs_HH[i] <-37581
  } else if (HH$np[i] == 7 & HH$nkids_hh[i] == 6)
  {HH$Off_Pov_Thrs_HH[i] <-36102
  } else if (HH$np[i] == 8 & HH$nkids_hh[i] == 0)
  {HH$Off_Pov_Thrs_HH[i] <-46231
  } else if (HH$np[i] == 8 & HH$nkids_hh[i] == 1)
  {HH$Off_Pov_Thrs_HH[i] <-46640
  } else if (HH$np[i] == 8 & HH$nkids_hh[i] == 2)
  {HH$Off_Pov_Thrs_HH[i] <-45800
  } else if (HH$np[i] == 8 & HH$nkids_hh[i] == 3)
  {HH$Off_Pov_Thrs_HH[i] <-45064
  } else if (HH$np[i] == 8 & HH$nkids_hh[i] == 4)
  {HH$Off_Pov_Thrs_HH[i] <-44021
  } else if (HH$np[i] == 8 & HH$nkids_hh[i] == 5)
  {HH$Off_Pov_Thrs_HH[i] <-42696
  } else if (HH$np[i] == 8 & HH$nkids_hh[i] == 6)
  {HH$Off_Pov_Thrs_HH[i] <-41317
  } else if (HH$np[i] == 8 & HH$nkids_hh[i] == 7)
  {HH$Off_Pov_Thrs_HH[i] <-40967
  } else if (HH$np[i] >= 9 & HH$nkids_hh[i] == 0)
  {HH$Off_Pov_Thrs_HH[i] <-55613
  } else if (HH$np[i] >= 9 & HH$nkids_hh[i] == 1)
  {HH$Off_Pov_Thrs_HH[i] <-55883
  } else if (HH$np[i] >= 9 & HH$nkids_hh[i] == 2)
  {HH$Off_Pov_Thrs_HH[i] <-55140
  } else if (HH$np[i] >= 9 & HH$nkids_hh[i] == 3)
  {HH$Off_Pov_Thrs_HH[i] <-54516
  } else if (HH$np[i] >= 9 & HH$nkids_hh[i] == 4)
  {HH$Off_Pov_Thrs_HH[i] <-53491
  } else if (HH$np[i] >= 9 & HH$nkids_hh[i] == 5)
  {HH$Off_Pov_Thrs_HH[i] <-52082
  } else if (HH$np[i] >= 9 & HH$nkids_hh[i] == 6)
  {HH$Off_Pov_Thrs_HH[i] <-50807
  } else if (HH$np[i] >= 9 & HH$nkids_hh[i] == 7)
  {HH$Off_Pov_Thrs_HH[i] <-50491
  } else if (HH$np[i] >= 9 & HH$nkids_hh[i] >= 8)
  {HH$Off_Pov_Thrs_HH[i] <-48546}
}

# Merge official poverty threshold back into main dataset
MM<-HH[,c("serialno","Off_Pov_Thrs_HH")]
NYC<-merge(NYC,MM,by=c("serialno"),all.x=T)
# Check that all poverty thresholds merged correctly
NYC[1:20,c("serialno","Off_Pov_Thrs_HH")]

# Official Poverty Rate by Household
NYC$Off_Pov_HH<-(NYC$inchh / NYC$Off_Pov_Thrs_HH)*100
# Look for missing values in threshold & rate
nrow(NYC[is.na(NYC$Off_Pov_Thrs_HH),])
nrow(NYC[is.na(NYC$Off_Pov_HH),])


# Below 60% State Median Income
NYC$SMI_pov_HH<-2
NYC$SMI_pov_HH[NYC$inchh<NYC$SMI_limit_HH]<-1

# Below 130% Official FPL
NYC$Below130<-0
NYC$Below130[NYC$Off_Pov_HH<130]<-1

# Between 130% Official FPL and Below 60% State Median Income
 NYC$Btwn_130_and_SMI<-0
 NYC$Btwn_130_and_SMI[which(NYC$Off_Pov_HH>=130 & NYC$SMI_pov_HH==1)]<-1

 #----------------------------
 # All utilities
 #----------------------------

 NYC$AllUtils_hh<-0
 NYC$pos_elep<-0
 NYC$pos_fulp<-0
 NYC$pos_gasp<-0

 NYC$pos_elep[NYC$elefp==3]<-(NYC$elep[NYC$elefp==3]*(NYC$adjhsg[NYC$elefp==3]/1000000))*12
 NYC$pos_fulp[NYC$fulfp==3]<-(NYC$fulp[NYC$fulfp==3]*(NYC$adjhsg[NYC$fulfp==3]/1000000))
 NYC$pos_gasp[NYC$gasfp==4]<-(NYC$gasp[NYC$gasfp==4]*(NYC$adjhsg[NYC$gasfp==4]/1000000))*12
 NYC$AllUtils_hh<-NYC$pos_elep+NYC$pos_fulp+NYC$pos_gasp
```

```
###################################
# GAS PROVIDER UTILITY TYPE
###################################
# 'GP' is Gas Provider, 1=National Grid
NYC$GP<-0
# NATIONAL GRID CUSTOMERS
NYC$GP[NYC$pos_gasp>0 & (NYC$Boro%in%c(2,5) | (NYC$Boro==4 & NYC$puma%in%c(4101,4109,4103,4106,4104)==F))]<-1

###################################
# UTILITY TYPE
###################################

NYC$UtilType<-4
#PAID UTILITIES, NO GAS
NYC$UtilType[NYC$AllUtils_hh>0 & NYC$pos_gasp==0]<-1
#PAID UTILITIES, WITH GAS, National Grid
NYC$UtilType[NYC$AllUtils_hh>0 & NYC$GP==1]<-2



#########################################################################

# CON EDISON ELECTRIC household filters
# All Households
Filter1<-NYC$relp==0
# all households below 130% FPL
Filter2<-NYC$relp==0 & NYC$Below130==1
# all households between 130% FPL & 60% State Median Income
Filter3<-NYC$relp==0 & NYC$Btwn_130_and_SMI==1
# all households below 60% State Median Income
Filter4<-NYC$relp==0 & NYC$SMI_pov_HH==1

# MEDIAN & MEAN INCOMES FOR ALL CON EDISON ELECTRIC HOUSEHOLDS
wtd.quantile(NYC$inchh[Filter1],weights=NYC$wgtp[Filter1],probs=c(.5),na.rm=T)
wtd.mean(NYC$inchh[Filter1],weights=NYC$wgtp[Filter1],na.rm=T)

# MEDIAN & MEAN INCOMES FOR CON EDISON ELECTRIC HOUSEHOLDS BELOW 60% STATE MEDIAN INCOME
wtd.quantile(NYC$inchh[Filter4],weights=NYC$wgtp[Filter4],probs=c(.5),na.rm=T)
wtd.mean(NYC$inchh[Filter4],weights=NYC$wgtp[Filter4],na.rm=T)

# MEDIAN & MEAN INCOMES FOR CON EDISON ELECTRIC HOUSEHOLDS BETWEEN 130% FPL & 60% STATE MEDIAN INCOME
wtd.quantile(NYC$inchh[Filter3],weights=NYC$wgtp[Filter3],probs=c(.5),na.rm=T)
wtd.mean(NYC$inchh[Filter3],weights=NYC$wgtp[Filter3],na.rm=T)

# MEDIAN & MEAN INCOMES FOR CON EDISON ELECTRIC HOUSEHOLDS BELOW 130% FPL
wtd.quantile(NYC$inchh[Filter2],weights=NYC$wgtp[Filter2],probs=c(.5),na.rm=T)
wtd.mean(NYC$inchh[Filter2],weights=NYC$wgtp[Filter2],na.rm=T)

#########################################################################

# NATIONAL GRID GAS household filters
# All Households
Filter1<-NYC$relp==0 & NYC$UtilType==2
# all households below 130% FPL
Filter2<-NYC$relp==0 & NYC$Below130==1 & NYC$UtilType==2
# all households between 130% FPL & 60% State Median Income
Filter3<-NYC$relp==0 & NYC$Btwn_130_and_SMI==1 & NYC$UtilType==2
# all households below 60% State Median Income
Filter4<-NYC$relp==0 & NYC$SMI_pov_HH==1 & NYC$UtilType==2

# MEDIAN & MEAN INCOMES FOR ALL NATIONAL GRID GAS HOUSEHOLDS
wtd.quantile(NYC$inchh[Filter1],weights=NYC$wgtp[Filter1],probs=c(.5),na.rm=T)
wtd.mean(NYC$inchh[Filter1],weights=NYC$wgtp[Filter1],na.rm=T)

# MEDIAN & MEAN INCOMES FOR NATIONAL GRID GAS HOUSEHOLDS BELOW 60% STATE MEDIAN INCOME
wtd.quantile(NYC$inchh[Filter4],weights=NYC$wgtp[Filter4],probs=c(.5),na.rm=T)
wtd.mean(NYC$inchh[Filter4],weights=NYC$wgtp[Filter4],na.rm=T)

# MEDIAN & MEAN INCOMES FOR NATIONAL GRID GAS HOUSEHOLDS BETWEEN 130% FPL & 60% STATE MEDIAN INCOME
wtd.quantile(NYC$inchh[Filter3],weights=NYC$wgtp[Filter3],probs=c(.5),na.rm=T)
wtd.mean(NYC$inchh[Filter3],weights=NYC$wgtp[Filter3],na.rm=T)

# MEDIAN & MEAN INCOMES FOR NATIONAL GRID GAS HOUSEHOLDS BELOW 130% FPL
wtd.quantile(NYC$inchh[Filter2],weights=NYC$wgtp[Filter2],probs=c(.5),na.rm=T)
wtd.mean(NYC$inchh[Filter2],weights=NYC$wgtp[Filter2],na.rm=T)
```

APPENDIX B

	Autopay			Regular Non-autopay			Cooling Assistance		
	Benefits	Dollar Amt	Average	Benefits	Dollar Amt	Average	Benefits	Dollar Amt	Average
NYS	1,222,731	$140,089,947	$115	254,038	$86,286,541	$340	4,797	$3,319,029	$692
NYC	756,887	$28,582,063	$38	67,599	$6,059,380	$90	692	$519,113	$750
ROS	465,844	$111,507,884	$239	186,439	$80,227,161	$430	4,105	$2,799,916	$682

Average Non Emergency Benefit

NYC	$ 42.02
ROS	$ 293.94

Source: https://otda.ny.gov/resources/caseload/2019/2019-09-stats.pdf

2019 Caseload Statistics

Table 26 - Non Emergency HEAP