

New York's Household Energy Burden Imperative: Challenges and Solutions

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Prepared for WE ACT 4 Change by Acadia Center

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Introduction

Since 2016, New York State (NYS) has embraced a policy goal of limiting energy burdens – the percentage of gross household income spent on energy costs – to 6% of household income. While some strides have been made to attain this policy goal, significant numbers of New York households still face energy burdens that exceed this 6% goal. To advance this goal, policymakers are considering new strategies, including the NY HEAT Act, which would require a plan to ensure the achievement of a 6% energy burden cap. Achieving this target will require a suite of coordinated policy and program interventions that build on existing initiatives while leveraging new and emerging solutions to further reduce energy burdens. Thankfully, New York State has a large combined set of levers at its disposal to help achieve the 6% cap, which substantially improves the State’s ability to effectuate widespread energy burden reductions, compared to where the State stood when the goal was first announced in 2016.

To help assess the feasibility of addressing the excess energy burdens that exist today, this report presents: 1) an estimate of the excess energy burdens borne by low and moderate-income (LMI) households in New York; and 2) an inventory of potential policy and program levers that could be utilized by New York State to reduce these energy burdens and make greater progress toward a 6% energy burden cap.

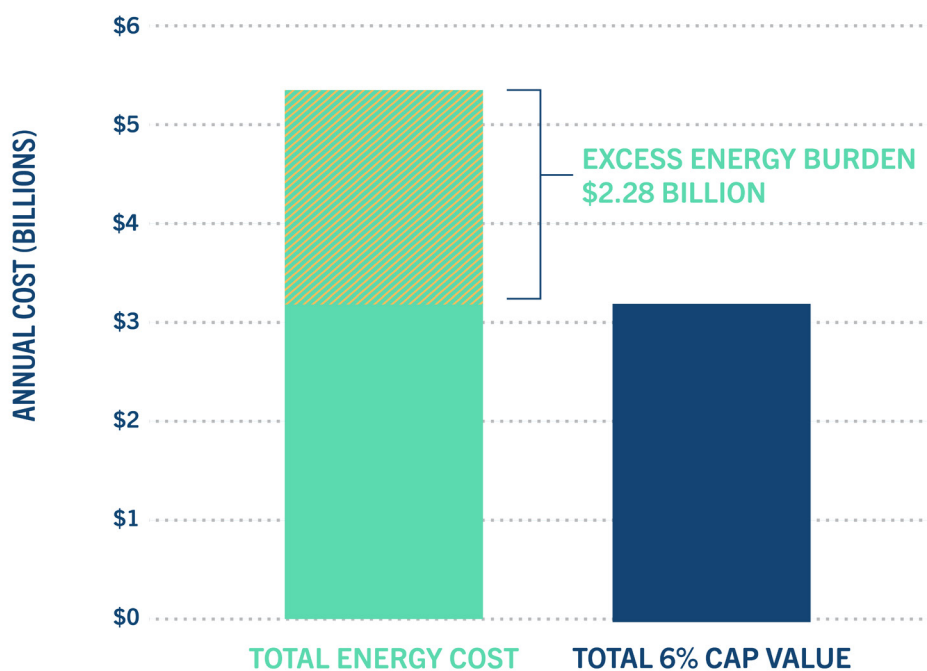
Despite the size of energy burdens in New York, addressing excess household energy burdens in the state is achievable. Policymakers and regulators have many solutions at their disposal and can make use of a wide range of program and policy levers, including the following categories (read on for more specific program examples):

- Affordable clean energy supply (such as community solar subscriptions)
- Direct financial relief (such as utility bill discounts)
- Home retrofit and weatherization measures (such as state and utility energy efficiency programs)
- Advanced rate design reforms to drive affordability (such as time-of-use rates)
- And a wide variety of funding sources to direct toward these levers (state, regional, federal, ratepayer, and beyond)



FIGURE 1

2022 New York State Cumulative Household Electricity and Gas Costs for Households Exceeding 6% Energy Burden vs. Energy Costs Under 6% Cap Scenario



Source: Acadia Center analysis of data from US Census

Based on this report's analysis, an estimated 2.2 million New York households face excess energy burdens as electric/gas customers. For these customers, this report estimates a one-year total of \$2.28 billion in total excess household energy burdens from electric and gas utility costs in New York State (greater than 6%). The report conceptualizes these excess energy burdens as Needed Energy Burden Reductions, or NEBRs ("neighbors"). These NEBRs – the portion of costs greater than 6% of household income – are borne almost entirely by low-income households, defined as households with annual incomes ranging from \$0 to just under \$45,000.

While numerous policies and programs, both existing and new, can serve as vehicles for meeting a 6% energy burden cap, the portfolio of potential solutions must be considered within the broader context of issues that inform energy costs. The size of excess energy burdens borne by New York households will likely change over time as a result of a broad set of market factors and energy policies that play a role in potentially raising or lowering energy costs. For instance, natural gas provides the largest share of New York's electricity generation sources. An overreliance on gas as a generation fuel means that gas price spikes have an outsized impact on electricity bills and burdens, and the same is true for gas and heating bills. A managed transition away from gas and other fossil fuels and a doubling down on clean energy resources such as solar, energy efficiency, and offshore wind would mitigate the risk of fossil fuel price spikes and help avoid the risk of customers remaining on the hook for the cost of stranded assets. Additionally, while this analysis did not examine combined energy and transportation cost burdens, the shift to vehicle electrification and reduced vehicle travel will also bring combined pocketbook savings to households as EV costs decline and charging yields savings over gas and diesel refueling.

By accelerating the movement away from fossil fuels and investing in cost-effective energy efficiency, the State can help to lower energy costs overall, thereby reducing the \$2.28 billion in NEBRs total over time. In that way, each year that the State invests to alleviate energy burdens with measures like weatherization and community solar subscriptions, the lower the total amount of NEBRs that remain, and the smaller the total mountain is to climb.

Key Findings

This report's analysis of existing energy burdens and programmatic and policy levers available to New York State reveals the following takeaways:

- **The size of the challenge:** LMI households in New York State currently (2022) pay a combined, one-year total of approximately \$2.28 billion above what a 6% energy burden cap would indicate—affecting an estimated 2.2 million households, or approximately a full third of all NYS households.
- **Addressing this energy burden challenge is doable:** These energy burden findings are significant, but they are in the same order of magnitude as the energy burden relief efforts the State has been providing through select programs and policies in recent years—\$1.4 billion per year in 2024.² And this total does not include all of the funding invested each year by the state through utility and state agency energy efficiency programs (e.g., RGGI, Clean Energy Fund, utility EE programs).³ This suggests that increasing existing efforts to align with the identified energy burden is not infeasible.
- **Clean energy can reduce costs over time:** Current energy bill relief measures are already reaching hundreds of thousands of households per year. Deeper inroads in energy efficiency—in tandem with bill discounts—can significantly reduce the number of households facing excess energy burdens, thereby reducing total energy burden costs year-over-year as energy efficiency retrofits are deployed.
- **New York has many solutions to employ:** The State has numerous effective program and policy levers to pull to help meet a 6% energy burden cap, such as: Solar for All Community Solar subscriptions; Energy Affordability Program (EAP) and arrears management plans; NYPA Renewable Energy Access and Community Help Program (REACH) Credits; EmPower+ electrification retrofits for LMI households, and other related measures; Weatherization Assistance Program (WAP); state and utility low and moderate-income energy efficiency programs; Regional Greenhouse Gas Initiative (RGGI) program funding; federal funding through the Inflation Reduction Act (IRA) and Infrastructure Investment and Jobs Act (IIJA); advanced rate design reforms; Cap-and-Invest rebates and decarbonization investments; and, disbursements from the General Fund, among others.

- **Adding it all up:** Taken together, the solutions identified in this report provide a plausible pathway for NYS to direct at least \$2.45 billion (or more) per year in investments toward energy burden relief in the years ahead, compared to the \$2.28 billion in total estimated existing burdens.
- **Overall feasibility and impact:** In light of these findings, it does not appear unreasonable or problematic for the State to codify its existing 6% energy burden policy goal into law. In fact, the public policy and public interest merits of the underlying policy goal are still sound, and the analysis reveals that it should be feasible for the State to make progress in closing the gap between its current energy burden relief efforts and the full achievement of the 6% goal through a suite of new and enhanced interventions.

Estimating Statewide Cost of Energy Burdens Above 6%

In conducting this analysis of NYS's energy burden for LMI customers, data was sourced primarily from the U.S. Census Public Use Microdata Sample (PUMS).⁴ This data encompassed household income by various income groups, along with the corresponding household expenditures on energy,⁵ including electricity and natural gas, also segmented by income group. The analysis focused on low-income (up to 60% of state median income) and moderate-income (between 60 - 80% of state median income) households.

SUMMARY OF METHODOLOGY:

To calculate energy burden for each income group (e.g., \$25,000 - \$30,000 annual household income), PUMS data was used to calculate the median income and the average annual energy costs (including cost of electricity and natural gas) for households that directly pay all of their energy bills. It is important to note that not all renters in NYS, especially those living in New York City, directly pay utility bills. In fact, over 600,000 renters in NYS (about 17% of all renters in the state and 8% of all households in the state)⁶ do not directly pay utility bills. For household that do not directly pay any energy bills, their energy costs are typically “embedded” or “built in” to their rent; in other words, their rent is higher to compensate for the fact that at least one (and sometimes multiple) energy bills are included. To estimate the “embedded in rent” level of energy costs for these households, this analysis assumed that total energy costs for these renters are the same as renters that do pay their utility bills.

Once data was collected on household annual energy costs by income group, the total energy burden (percentage of household income spent on home energy bills) was calculated by income group. For each income group, the cost of a 6% energy burden cap was calculated based on median income within that income group. Using this data, it was possible to assess the average annual excess energy burden exceeding a 6% energy burden within each income group.

ENERGY BURDEN FINDINGS:

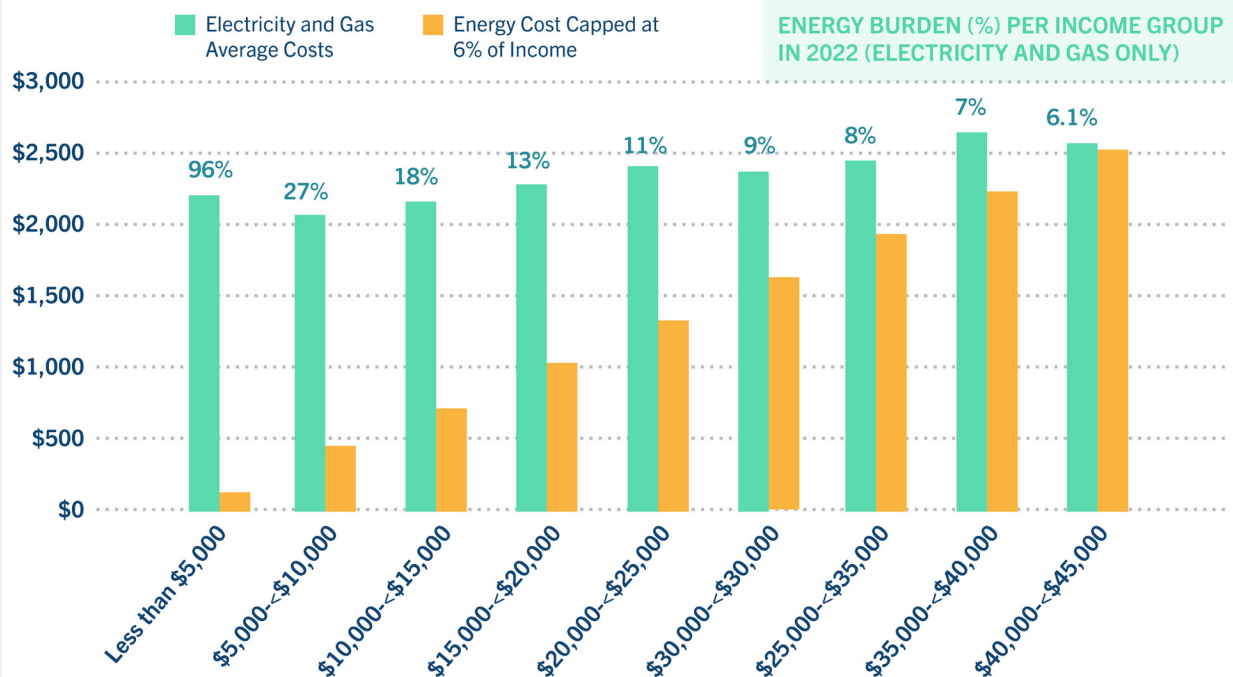
- All NYS income groups below \$45,000 annual income experience an energy burden higher than 6%.
- The excess electricity and gas energy burden is estimated to be \$2.28 billion.
- Of the estimated \$2.28 billion in excess electricity and gas energy burdens, 73% of households experiencing an excess electricity and gas energy burden are renters. This includes renters that receive energy bills and renters that have all energy bills included in rent. The remaining 27% of households are non-renters.

Below, energy burdens among LMI households in New York State for the year 2022 are described in more detail. This analysis reveals the disproportionate energy burden faced by low and moderate-income households in NYS, emphasizing the need for targeted interventions to ensure equitable access to essential energy services.



FIGURE 2

Low-Income Households: Comparing 2022 Energy Expenditures (Gas & Electricity Only) to 6% Cap Scenario



Source: Acadia Center analysis of data from US Census



Figure 2 compares the average total energy cost and percent energy burden with a 6% energy burden cap for LMI households in NYS. The percentages displayed above the green bars signify the percentage of energy burden experienced by that income group relative to the total energy cost. Notably, the yellow bar depicts the estimate of what a 6% energy burden threshold would be for these energy costs. The analysis revealed that all households earning below \$45,000 annually experience an energy burden exceeding the 6% threshold.



FIGURE 3

Excess Energy Burden Cost Compared to Other State Costs

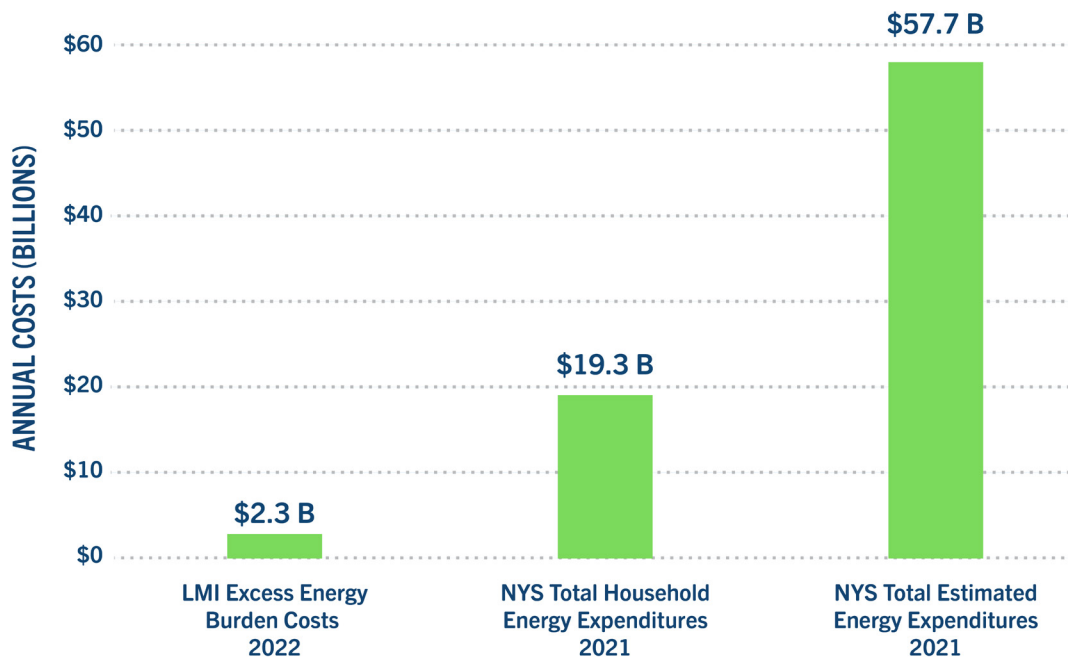
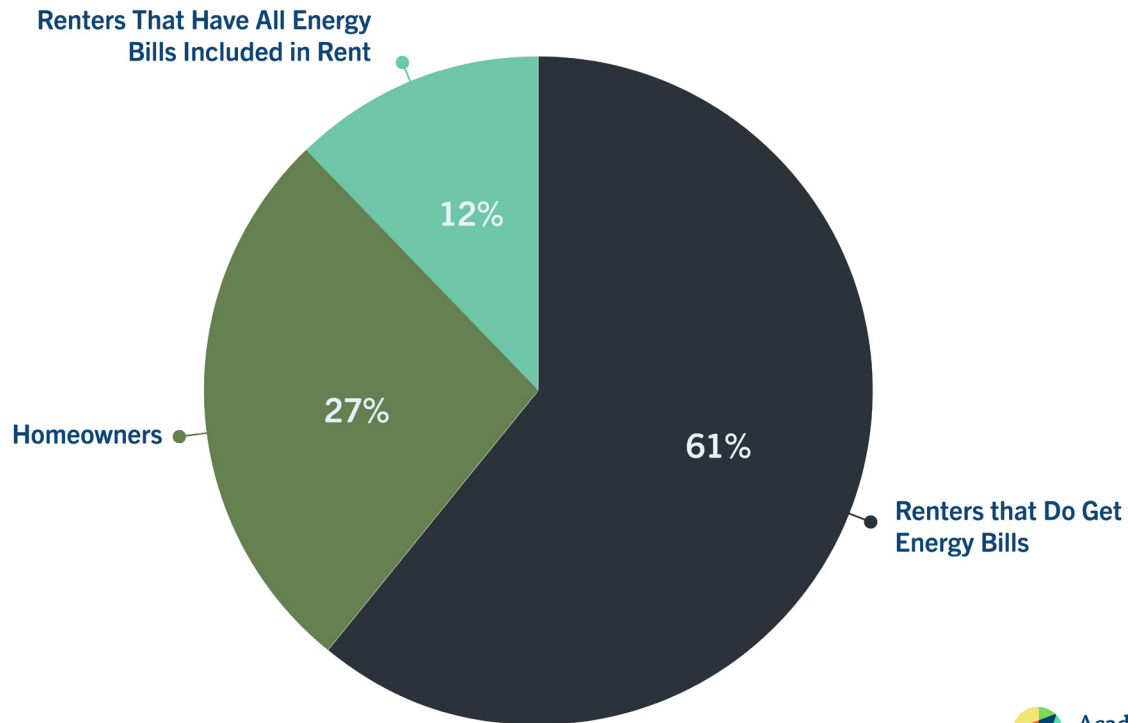


Figure 3 presents total excess energy burden, amounting to approximately \$2.28 billion. This excess accounts for 4% of total energy expenditures in NYS for 2021 and 12% of total residential household energy expenditures.⁷ When comparing these totals with the cost to address LMI energy burden, the sum of excess energy burdens is not only proportionally smaller, but addressable through a combination of ongoing and proposed funding levers that are already shaping these very energy expenditures and state budgets in New York.



FIGURE 4

Breakdown of Customers in New York State Experiencing Excess Energy Burden (Electric & Gas Only)



Source: Acadia Center analysis of data from US Census



Figure 4 delineates the breakdown of the \$2.28 billion excess energy burden among renters that pay their energy bills through their rent, renters who pay at least one of their bills to a utility, and non-renters. Of the estimated \$2.28 billion in excess energy burden costs, 73% of households experiencing energy burden above the 6% cap are renters. Considering all households in New York, about 47% are renters and 53% own their own house. This demonstrates how excess energy burdens are disproportionately concentrated among renters. Additionally, approximately 12% of all households in New York facing an excess energy burden are renters that do not pay energy bills, i.e. the home energy costs for these customers are included in rent. Thus, approximately \$0.28 billion of the total \$2.28 billion excess energy burden is “embedded” in rent, meaning many of these households are exposed to energy burden not through direct payments of energy bills but through higher rents to compensate as a result of having energy bills included in rent. In other instances, households residing in affordable and/or public housing across the State may have consolidated housing and energy bills through a variety of subsidized rent and/or housing programs.

Policy and Program Levers to Reduce Energy Burdens

The following section presents an inventory of policy and program levers at New York's disposal to assist in reducing excess energy burdens. Some interventions, such as energy efficiency investments, could reduce the overall size of total excess energy burdens in the first place (i.e., the \$2.28 billion excess burden cost). Other interventions, such as utility bill discounts or Cap-and-Invest rebates, could help to directly offset remaining costs. Ultimately, given the size of the estimated excess energy burdens found in our analysis, it will take a suite of multiple, complementary solutions to make meaningful progress toward a 6% cap statewide.

SOLAR FOR ALL COMMUNITY SOLAR SUBSCRIPTIONS

- **Amount of benefit per household:** \$40-\$180/year
- **Size of program to-date/as proposed:** \$32 million/year (800,000 households x \$40/household)

Income-eligible New Yorkers can save up to \$180 annually under the existing Solar for All community solar program.⁸ Solar for All had been almost fully subscribed, but expanding the community solar program, as approved by the PSC in May 2024, will help deliver greater savings to help achieve the 6% energy burden cap.

Governor Hochul's 2024 budget (for FY25) included a Statewide Solar for All proposal that would combine the utility-managed Energy Affordability Program and New York's community solar program to deliver bill savings to low-income households. The new program, now approved by the PSC, was designed with a goal of delivering electric bill credits of \$40 per year to more than 800,000 households (totaling \$32 million/year).⁹

In the future, the size of the opportunity to deliver bill savings via community solar subscriptions could expand significantly if New York State eliminated or relaxed the prohibition on enrolling customers in utility service territories different from the territory in which the community solar project is located. This limitation has made it a particular challenge to deliver community solar savings from projects located upstate, where there is relatively ample land and grid capacity for large 1-5 MW community solar farms (e.g., in National Grid's upstate territory), to LMI customers in the downstate region in New York City and on Long Island (e.g., in Con Edison territory), where there is much less available land to site community solar arrays of that size. As a comparison, Massachusetts recently acted to eliminate similar barriers to the trading of net metering credits across utility service territories, which is expected to ameliorate a similar west/east dynamic in that state.¹⁰

ENERGY AFFORDABILITY PROGRAM AND ARREARS MANAGEMENT

- **Amount of benefit per household:** \$140-\$1,700/year
- **Size of program to-date/as proposed:** \$380 Million/year (EAP), not including one-time COVID-related relief programs

Eligible New York customers can receive several forms of utility bill relief, including federal and state grants such as the Home Energy Assistance Program and the Neighborhood Heating Fund, as well as monthly bill credits (through the Energy Affordability Program, or EAP) and payment plans (also known as arrears management plans, or AMP). Under traditional Arrears Management Programs overseen by the state's utilities, eligible customers who have outstanding balances can enroll in a payment plan in which past debt is forgiven if payments are made on time. In 2024, \$380 million in EAP funding was available for consumers through utilities. The EAP seeks to provide relief to the estimated 2.7 million households with incomes levels at the Federal Poverty Level.

In addition to traditional arrears management programs, New York has implemented several one-time COVID-related bill debt relief programs, which could serve as a model for helping achieve the 6% energy burden cap in the future:

- In 2022, Gov. Hochul allocated \$567 million—a combination of \$250 Million from the state budget and funding through the Office of Temporary and Disability Assistance (OTDA)—to help cover unpaid low-income customer utility bills. This funding provided a credit for 334,000 low-income households that were enrolled in their utility's Energy Affordability Program (EAP). [~\$1,700/household]

- In 2023, the state provided another \$672 million in bill debt relief for an additional 478,000 households and 56,000 small businesses (with a one-time cap of \$2,750 for residential customers).¹¹ The debt relief budget was a combination of utility shareholder financing and ratepayer support through bill surcharges. [~\$1,250/household]
- In 2023, the state allocated \$200 million from the state budget to provide a monthly discount to more than 800,000 households newly eligible for bill discount programs [~\$250/household]. It also announced an Energy Affordability Guarantee pilot to cap energy burden at 6% for 20,000 low-income households through the EmPower+ program (whose funding was increased with a separate \$200 million infusion from the state budget; more information provided below).

These investments are not inclusive of additional investments in affordability and rate relief made by LIPA and PSEG Long Island, entities that participate in the State’s Energy Affordability Policy Working Group but deliver bill and arrears relief separately from the joint utilities’ PSC-directed actions.¹²

Finally, and of particular note, Section 6 of the NY HEAT Act proposes to increase the cap on Energy Affordability Program annual funding from 2% to 3% of total electric and gas revenues from sales to end-use customers. If passed, this change would increase current program budgets—\$380 million in 2024—to at least \$570 million in future years.¹³

NYPA REACH CREDITS

- **Amount of benefit per household:** will mirror EAP program (see above - has ranged from \$140-\$1,700/year)
- **Size of program to-date/as proposed:** still TBD based on implementation of program

Another tool for the State to use is the New York Power Authority’s (NYPA’s) recently extended authority to provide ‘REACH Credits’ under the Renewable Energy Access and Community Help Program (REACH). This authority was conferred by the Legislature in 2024 as an outgrowth of the Build Public Renewable Act debates, and NYPA filed a petition with the Public Service Commission (PSC) to formally establish the program.¹⁴ Now approved, the program will provide bill credits from renewable energy projects to benefit low-income households. According to NYPA, the PSC approved NYPA’s request to adopt the REACH program utilizing the same structure as the Energy Affordability Program (EAP) and as the Statewide Solar for All program.¹⁵

The REACH program will likely begin implementation in 2025, coinciding with the issuance of the first biennial Strategic Plan for building new renewable projects (January 2025).¹⁶ The size and reach of the program is not known as of their petition to the PSC in early 2024, per NYPA: “As REACH is in its nascent stage, it is not possible at this time to project the amount of revenue that will be generated by renewable energy generation projects assigned to REACH or the amount of bill credits that eligible beneficiaries should expect to receive.” Nonetheless, the program should represent an additional infusion of funding to expand the reach of the state’s existing EAP and Statewide Solar for All efforts.

EmPOWER+ ELECTRIFICATION RETROFITS FOR LMI HOUSEHOLDS, AND OTHER RELATED ENERGY AND COST-SAVING MEASURES

- **Amount of benefit per household:** ~\$10,000
- **Size of program to-date/as proposed:** \$200 million/year

Gov. Hochul’s 2023 budget (FY24) included a proposal for \$200 million to be allocated from the State budget to expand NYSERDA’s EmPower+ home retrofits program, which was to help 20,000 low-income households retrofit their homes by adding insulation, installing energy efficient appliances, and switching to clean energy.¹⁷ EmPower+ (and its predecessor EmPower) had historically been funded primarily by ratepayer funding (specifically the Systems Benefit Charge and the Regional Greenhouse Gas Initiative, or RGGI), so this infusion of state budget funding in 2023 was notable for both its size and its source.

EmPower+ offers fully subsidized retrofits for weatherization and electrification measures for qualified low-income households. That makes it a much more impactful but expensive intervention on a \$-per-customer basis than

the bill relief measures above (on the order of \$10,000 per household or more). In addition, as mentioned above, New York announced in 2023 that it would pair the EmPower+ program with a new Energy Affordability Guarantee pilot to cap ongoing energy burden at 6% for those 20,000 low-income households who would benefit from the EmPower+ program. In other words, EmPower+ would fully pay for a weatherization and electrification retrofit upfront, and the Guarantee pilot program would hold those households harmless from any future increases in electricity costs from operating their new system. This program is intended to directly address the sometimes-challenging operating cost economics of gas-to-electric conversions.

Gov. Hochul's 2024 budget (FY25) also included a proposal for the Smart Energy Savings Initiative, which would reduce utility bills by helping customers better manage daily energy usage. For participating households, smart technology will help schedule periods of significant energy use to take place when electricity demand and costs are lowest under time-of-use rate structures. Depending on the utility and the household, participating New Yorkers with electric vehicles could save upwards of \$200 per year, and New Yorkers with heat pumps could save between \$100 and \$500 per year. The total budget for this initiative is not fully clear, but it could be another tool for the State to use in the future.¹⁸ See below for further discussion on advanced rate design reform options.

WEATHERIZATION ASSISTANCE PROGRAM (WAP)

- **Amount of benefit per household:** ~\$697 savings/unit in 2020 dollars
- **Size of program to-date/as proposed:** \$65.4 million in WAP funds for Program Year 2022. This amount includes \$25.2 million in DOE funds and \$40.2 million of new HEAP funds

The Weatherization Assistance Program is administered in New York State by New York State Homes and Community Renewal (HCR) through the Office of Housing Preservation.¹⁹ The program provides energy services to income-eligible individuals and families to improve the energy efficiency of their homes and to reduce their household expenditures for fuel.

In 2024, more than \$70 million was available for customers through WAP in New York. In addition, \$360 million was available in Home Energy Assistance Program (HEAP) funding for New York.²⁰ Historically, the Weatherization Assistance Program spent \$68.8 million in Program Year 2021 (April 2021 – March 2022). HCR anticipated availability of \$65.4 million in WAP funds for Program Year 2022, including \$25.2 million in DOE funds and \$40.2 million of new HEAP funds. ARPA pilot funds are an additional one-time allocation of HEAP of up to \$57 million not included in the WAP budget summary above. Given the change in federal administration, NYS should be extra watchful to ensure programs reliant on federal funding, like WAP and HEAP, do not see an erosion of energy burden relief funding, and instead are supplemented/backfilled wherever budget cuts may occur.

In the last WAP program year, HCR completed 7,485 units which impacted 1,919 single family homes, 4,544 multi-family homes, and 567 mobile home units across 62 counties. The program served 3,936 units of housing for seniors, 2,106 units for persons with disabilities, and 3,285 households with children. The program is estimated to have saved 200,000 MMBtu through the energy efficiency measures that were completed in these homes; this is equivalent to more than 2,000 metric tons of CO₂.

OTHER STATE LMI ENERGY EFFICIENCY PROGRAMS

- **Amount of benefit per household:** will vary by program and measure; likely up to \$10,000 or more
- **Size of program to-date/as proposed:** up to roughly \$225 million/year if approved (2026 to 2030)

Under New York's statewide LMI energy efficiency portfolio and NY Sun, over \$200 million in ratepayer funding was available to provide access to energy efficiency and clean energy solutions for low and moderate-income New Yorkers in 2024.²¹ Energy efficiency Program Administrators (PAs) achieved, in the most recent Annual Report (for 2023, filed in April 2024), estimated annual electric savings of approximately 58,300 MWh and annual gas savings of approximately 823,400 MMBtu.²²

The future of the state energy efficiency and building electrification (EE/BE) portfolios is under development now, after the Public Service Commission (PSC) ordered the PAs in July 2023 to submit EE/BE portfolio proposals for 2026-2030 (these were filed in November 2023). It appears that most of the programming for LMI customers in this 2026-2030 period may fall to NYSEDA or include NYSEDA's involvement. While still not finalized and fully

approved, the LMI EE/BE proposals contemplate \$1.6 billion to support EE/BE initiatives targeting the LMI market segment for the 2026-2030 period. If approved along these lines, the state could be prepared to direct up to \$225 million annually into LMI EE/BE activities during the 2026 to 2030 period, which would be a substantial infusion of funding to help address energy burdens for participating customers.²³

Analysis of New York’s Low- and Moderate-Income (LMI) Energy Efficiency programs based on the 2022 Statewide Low- and Moderate-Income Portfolio Annual Report²⁴ and the updated 2023 Implementation Plan²⁵ highlights the evolving scale and effectiveness of these initiatives, especially in addressing energy affordability challenges for vulnerable households. The data reveals that New York’s efficiency programs for LMI customers have resulted in notable savings in recent years. The LMI portfolio’s actual and projected annual bill savings have risen from \$226 million in 2020 to \$424 million by 2025.

In addition, the effectiveness of these programs is reflected in the reported participant bill savings per dollar spent from 2020 to 2022: \$0.07 annual savings and \$1.18 lifetime savings for every dollar invested, indicating strong long-term value for participants. The average lifetime savings per dollar spent is projected to remain above \$2.12 according to the implementation plan for 2020-2025, reflecting consistent returns and reinforcing the value of sustained investment in these initiatives. These data provide evidence that efficiency investments for LMI households provide significant bill savings to participating households each year and combine to provide greater savings than program costs to participants over the lifetime of program measures.

Program-Specific Observations:

- 1-4 Family Homes Portfolio: The reported benefits of this program have remained consistent over time, with lifetime bill savings per dollar spent increasing from \$1.28 in 2020 to \$1.66 in 2023.
- Existing Affordable Multifamily Direct Savings: This program category highlights significant benefits, with lifetime bill savings per dollar spent peaking at \$4.53 in 2021, indicating a strong return on investment for these ratepayer dollars.
- Customer Awareness, Outreach & Engagement: The effectiveness of this program is seen in its especially high lifetime bill savings per dollar spent (e.g., \$27.95 in 2020). It shows that education and outreach efforts have a strong multiplier effect by enhancing participation rates and the uptake of other beneficial energy efficiency measures.

Implications for Future LMI Energy Efficiency Planning:

The projected budget allocations under review now are expected to yield a continuation of high savings rates for the future program cycle (2026-2030). As a result, New York’s LMI energy efficiency programs are well-positioned to

Figure 5. LMI Portfolio EE/BE Budgets Proposed by Program Administrator (2026-2030)

Source: NYS DPS Staff Technical Conference Presentation, February 2024.

Electric and Gas									
Administrator	Total Budget	Avg. Annual Budget	Budget Allocation (%)					\$/First Year MMBTu*	\$/Lifetime MMBTu*
			Incentives & Services	Implementation	Marketing	Labor	Other		
ConEd	\$457,450,990	\$91,490,198	79.1%	7.8%	0.9%	8.8%	3.4%	\$271.69	\$16.54
KEDLI	\$17,600,000	\$3,520,000	70.0%	15.2%	2.7%	9.1%	3.0%	\$207.02	\$13.49
KEDNY	\$89,107,145	\$17,821,429	75.8%	16.3%	1.9%	2.9%	3.2%	\$238.52	\$15.42
NYSERDA	\$1,000,000,000	\$111,111,111	69.2%	9.1%	3.9%	12.2%	5.6%	\$293.32	\$17.43
TOTAL	\$1,564,158,135	\$223,942,738	72.5%	9.2%	2.9%	10.6%	4.8%	\$281.75	\$16.98

further expand their impact, reduce energy burdens, and improve affordability for low-income households. Given their strong cost-effectiveness and lifetime benefits to participants, strengthening the budgets for future programming can help further mitigate energy burdens among LMI households across the state. This suggests that ratepayer (and non-ratepayer) funded LMI efficiency programs can serve as a significant dial for the state to turn as it looks to make greater strides toward a statewide six percent requirement.

REGIONAL GREENHOUSE GAS INITIATIVE (RGGI)

- **Amount of benefit per household:** varies by program – up to \$10,000/household for EmPower+
- **Size of program to-date/as proposed:** ~\$70 million/year or more (FY23-24 to FY26-27)

The Regional Greenhouse Gas Initiative (RGGI) is currently undergoing its Third Program Review. Once settled, participating states like New York will have a clearer view into the future trajectory of the regional program, which is focused on reducing emissions from the power sector. Historically, NYSEDA has been the primary administrator

Figure 6: RGGI Operating Plan for Current Planning Period (FY23-24 through FY26-27)

	PROGRAM	CUMULATIVE ALLOCATIONS THROUGH MARCH 31, 2024	FY 24-25 PLAN	FY 25-26 PLAN	FY 26-27 PLAN	CUMULATIVE ALLOCATIONS THROUGH MARCH 31, 2027
RENEWABLE ENERGY	NY-Sun Statewide Customer Incentives	36,970,000	20,000,000	17,850,000	9,000,000	83,820,000
	NY-Sun Long Island SEEF Incentives	7,500,000	1,000,000	3,000,000	1,000,000	12,500,000
	NY SUN Long Island Incentives	55,000,000	-	-		55,000,000
	Residential PV Plus Storage	6,000,000	3,000,000	-		9,000,000
	Renewable Heat NY	10,300,083	-	-		10,300,083
	Agrivoltaics	5,000,000	5,000,000	7,000,000	10,000,000	27,000,000
	Advanced Renewable Energy	2,837,698	-	-		2,837,698
	NYS Generation Attributes Tracking System	789,9333	-	-		789,933
	NYSEDA PV Incentives	5,319,821	-	-		5,319,821
ENERGY EFFICIENCY	Clean Energy Workforce Opportunity Program	15,000,000	-	-	-	15,000,000
	LIPA Efficiency and RE	289,600,000	20,000,000	20,000,000	20,000,000	349,600,000
	Energy Storage (LIPA territory)	12,926,434	-	-	-	12,926,434
	EmPower Plus	101,475,905	30,000,000	45,000,000	30,000,000	206,475,905
	Pilot Projects with Municipal Utilities	3,000,000	-	-		3,000,000
	Disadvantaged Communities Schools / Buildings	42,900,000	6,500,000	5,000,000	5,000,000	59,400,000
	Multifamily Low Carbon Capital Planning / Pathway Projects	5,000,000	3,000,000	7,000,000	10,000,000	25,000,000
	Community Thermal Energy Networks	12,700,000	3,000,000	4,000,000	2,000,000	21,700,000
	Building Retrofit and New Construction Challenges	10,000,000	10,000,000	18,000,000	18,000,000	56,000,000
	Climate Resiliency Implementation Planning	5,000,000	5,000,000	5,000,000	5,000,000	20,000,000
	Support for 2 Million Homes Goal	-	-	15,000,000	10,000,000	25,000,000
	Multifamily Performance Program	15,046,683	-	-	-	15,046,683
	Multifamily Carbon Emissions Reduction	5,833,019	-	-	-	5,833,019
	Solar Thermal Incentive	4,226,947	-	-	-	4,226,947
	Municipal Water/Wastewater	1,245,242	-	-	-	1,245,242
	Innovative Finance & Risk Management	-	-	3,000,000	3,000,000	6,000,000
	Clean Heat Consortium	-	2,500,000	4,500,000	5,000,000	12,000,000
	Green Residential Buildings	2,744,601	-	-	-	2,744,601

for RGGI revenues in New York State, and it has used those proceeds to fund a range of programs, including those that deliver direct benefits and savings to LMI households (e.g., EmPower and Assisted Home Performance). New York's RGGI Operating Plan (OpPlan) is developed on an annual basis each fall/winter and approved by DEC and NYSEERDA's Board. The 2024 OpPlan includes the following projected expenditures of relevance to energy burden reduction efforts (highlights for likely DAC/LMI focus):²⁶

As such, RGGI investments in DAC/LMI EE/BE programs could bring another ~\$275 million to bear over a four-year period to help LMI households reduce their energy burdens. This total will likely grow when factoring in Long Island incentives for EE and RE (\$80 million) and rooftop solar (\$14 million), recognizing that not all of these funds will go toward DAC/LMI households. (Other NYSEERDA and Utility-administered efficiency and renewable programs and their funding sources do not otherwise extend to customers located on Long Island). Greater-than-forecasted revenues from allowance auctions may also increase overall RGGI funding available as well.

FEDERAL FUNDING THROUGH THE INFLATION REDUCTION ACT AND THE INFRASTRUCTURE INVESTMENT AND JOBS ACT

- **Amount of benefit per household:** varies by rent/own; can be ~\$3,000 to \$14,000/household
- **Size of program to-date/as proposed:** \$318 million over five years (~\$25 million/year for Justice40/DAC)

Under the Inflation Reduction Act (IRA), New York State will receive approximately \$318 million over five years in funding for residential decarbonization and energy efficiency efforts. This includes \$159 million under the Home Efficiency Rebates Allocation (Section 50121) and \$158 million under the Home Electrification & Appliance Rebates Allocation (Section 50122). These funds are disbursed to NYSEERDA under a State Energy Program formula grant through DOE.²⁷ Not all of these funds are necessarily earmarked for LMI households, but they will be administered consistent with federal Justice40 and state Disadvantaged Community spending commitments (i.e., 40%). As the funding is issued, New York can and should assess whether these programs could serve as effective delivery models for reducing energy burden beyond the initial five years of federal funding. New York's prior work with the EmPower+ program clearly set it up well to take swift advantage of the newly appropriated federal funding, as the State became the first to launch IRA-funded home energy rebate program in May of 2024.²⁸

The IRA overall makes available to households a number of rebates and tax credits that will help reduce energy burdens. Depending on whether households own or rent their home, available IRA rebates and tax credits include the following (some of which stretch outside the bounds of calculating 6% energy burden):²⁹

- Electrification rebates for: heat pumps, energy efficiency, electric panels, electric wiring, heat pump water heater, weatherization, electric/induction stoves, and heat pump clothes dryers.
- Tax credits for: battery storage, geothermal heating/ground source heat pumps, new/used electric vehicles, rooftop solar, air source heat pumps, heat pump water heaters, weatherization, and electric panels.

The Infrastructure Investment and Jobs Act (IIJA) also made a number of relevant funding appropriations to the states. This included \$6.5 billion for the Weatherization Assistance Program (WAP), the Energy Efficiency and Conservation Block Grant Program (EECBG), and State Energy Program (SEP). The report is focused on overall programmatic resources for WAP and HEAP, described further above. We acknowledge some uncertainty around federal funding programs given the change in Administration. While these federal funds may see reductions in the near future, they may become available again in the mid- to long-term.

ADVANCED RATE DESIGN SOLUTIONS

A range of rate design solutions are available to help lower energy costs and, by extension, address the costs associated with a 6% energy burden cap. These rate design options may extend to both regulated electric and gas tariffs as well, where enabled by advanced metering infrastructure (AMI) rollout or other effective metering methods (e.g., EV charger inverters).

Expanded Low-Income Discount Rates

New York State's efforts to reduce energy burden for low-income households through utility discount programs, as referenced above, have seen meaningful improvement but still face challenges in achieving 100% uptake from eligible households. These programs include the Energy Affordability Program (EAP) and the Home Energy Assistance Program (HEAP), both aimed at helping alleviate household energy burden costs.

- Energy Affordability Program (EAP): Approximately 1.052 million participants are enrolled as of October 2024, as estimated by the Public Utility Law Project of New York (PULP).
- Home Energy Assistance Program (HEAP): From October 2023 to August 2024, there were 1.793 million participants with a total of \$393,813,688 authorized.³⁰
- Low-Income Home Energy Assistance Program (LIHEAP): Served 1.163 million customers.³¹ (Note that LIHEAP funds the HEAP program.)

Despite progress, only 42% of potentially eligible households are enrolled in EAP low-income discount rates, leaving 57.6% (1,429,600 households) unenrolled. This suggests that there is significant room for improvement for New York and its utilities to better reach already overburdened customers and to alleviate high energy burdens. Auto-enrollment in low-income rates for eligible customers, combined with more investment in outreach and education for eligible customers, can help improve the current enrollment rates. Additionally, barriers to being classified in an auto-enrollment customer category should be identified to consider the full range of customers who could possibly qualify but are not currently verified for qualification.

Data analysis of EAP enrollment by PULP found the following observations:³²

1. Wide Variation in Enrollment Percentages:

- The enrollment rates across investor-owned utilities range significantly, from a low of 15.6% (KEDLI) to a high of 50.7% (Con Edison).
- Among public authorities, LIPA/PSEG-LI shows a relatively low enrollment rate of 30.2%.

2. Higher Enrollment Utilities:

- Con Edison leads with 50.7% of potentially eligible households enrolled, indicating potentially stronger outreach, program accessibility, local coordination, and/or customer engagement.
- NFG (49.4%) and KEDNY (46.1%) also demonstrate relatively strong enrollment rates among investor-owned utilities, suggesting more effective program strategies in their territories.

3. Lower Enrollment Utilities:

- KEDLI (15.6%) and Central Hudson (17.0%) have the lowest enrollment percentages among all utilities, highlighting potential barriers to participation, such as lack of program awareness or challenging enrollment processes.

4. Overall Enrollment Gap:

- Out of 2,481,744 eligible households, only 1,052,144 are enrolled, leaving a significant gap of 1,429,600 households.

Time-of-Use Rates

From an individual customer perspective, more sophisticated rate designs can create meaningful bill reduction opportunities. And from a system perspective, more advanced rates can help ease congestion on the grid during peak hours, thus delaying or avoiding grid upgrades, reducing expensive wholesale market prices, and saving ratepayers money. Time-of-Use (TOU) rates, in particular, can be an important tool for unlocking the benefits of building and transportation electrification, as well as enabling load flexibility and deriving greater value from distributed energy resources. If designed carefully, TOU rates can also play an important role in helping to address the affordability gap and reducing energy burdens for low- and moderate-income households.³³

All investor-owned utilities in New York currently offer optional TOU rates, although Niagara Mohawk Power Corporation's (National Grid) offering is tailored specifically to electric vehicle owners. The Long Island Power Authority (LIPA) will begin offering default TOU rates for residential customers in January 2025.

Studies have shown that LMI customers generally have flatter load profiles and use less energy during peak hours compared to higher income households that tend to own more energy intensive appliances (although, it is important to note that is not always the case; see further below for more information). As a result, LMI households have an opportunity to see immediate bill savings from TOU rates without any changes in behavior or consumption.^{34,35} At the same time, however, LMI customers may have fewer opportunities to shift load compared to higher-income customers given their already flatter load profiles.³⁶ Under currently flat volumetric rates, LMI households may already be overpaying relative to the share that LMI customers contribute to overall system costs compared to higher income households that tend to have higher usage patterns.³⁷ TOU rates can help to address some of these imbalances.

Time-of-use rates use a tiered pricing structure for pre-determined peak and off-peak time periods. Peak TOU periods generally align with overall peak system costs. By increasing electricity costs during peak hours and lowering them during off-peak hours, TOU rates provide a clear price signal for customers to shift their usage to lower cost times of the day. Studies have shown that customers broadly respond to TOU rates in significant ways, leading to both usage and bill reductions.^{38,39} Customer responsiveness is even more pronounced when TOU rates are accompanied by enabling technologies, such as smart thermostats and other automated devices, which can help customers more effectively shift their load.^{40,41}

TOU rates can provide customers an opportunity to lower their electricity bills by adjusting their electricity usage throughout the day. This can help reduce peak demand and strain on the electricity system, which lowers costs from a system-wide perspective.⁴² In addition to bill and usage reduction benefits, TOU rates can provide emissions reductions and health benefits. By lowering peak demand, TOU rates can reduce the reliance on some of the dirtiest and most expensive generation resources, which are often used to meet the periods of highest demand. As a growing number of customers electrify their homes and use electric vehicles, it will become increasingly important to ensure that increased electric usage is concentrated in the lowest cost and least emitting times of day.

Peak demand is one of the primary drivers of system-wide costs and overall investments in the grid. By reducing peak demand and/or slowing its growth, TOU rates can help to avoid future costs from upgrading the grid to meet a growing system peak. At the same time, a shift in demand from on-peak to off-peak hours means increasing load where sufficient capacity on the grid already exists to take on new load, avoiding the need to build new capacity in response to load growth. Shifting usage to off-peak hours also helps to extract more value from solar resources by concentrating usage during periods of peak solar production, helping to avoid the need for solar curtailments.⁴³ The same or similar will also be true in the future for off-peak nighttime consumption as offshore wind production comes online in greater volumes.

The Sacramento Municipal Utility District (SMUD) offers default residential time-of-day pricing, which began as a pilot program in 2018 and was fully implemented in 2019. Studies show that SMUD's TOU rates have resulted in between 7-8% peak load reductions.^{44,45} Similarly, the TOU pilot program from Pennsylvania's PECO Energy resulted in notable load reductions, including a 6% average peak demand reduction in the summer.⁴⁶

TOU RATES CAN DELIVER BILL AND USAGE REDUCTIONS FOR LOW-INCOME CUSTOMERS

Several TOU rate offerings and pilot programs around the country have specifically analyzed the impact of TOU rates on LMI households in terms of both bills and usage. And while results are not uniform across every participating household, numerous studies show that, if designed carefully and supported with comprehensive customer education, TOU rates can help to reduce both bills and usage for LMI households.

For example, a TOU pilot program in Maryland analyzed low and moderate-income household responsiveness to TOU rates and showed that LMI households with TOU rates saw both bill savings and peak usage reductions over time.⁴⁷ LMI customers across Maryland's three participating utilities saw annual average bill reductions between 4.4%-9.6%. LMI customers also responded to the TOU prices by reducing their peak consumption by similar proportions

compared to non-LMI households. If the average LMI bill reductions seen in the Maryland pilot were applied to low-income electric customers in New York, customers could expect to see between roughly \$186 million to \$405 million in total annual bill savings.

In a default TOU pilot in Fort Collins, Colorado, 67% of income-qualified customers saw monthly bill reductions. Although the remaining 33% of income-qualified customers saw their average monthly bill increase by \$1.72, 100% of income-qualified customers saw overall bill reductions when the TOU rates were combined with the existing utility discount program.⁴⁸ The Fort Collins pilot saw a 7.5% reduction in peak demand when accounting for all participating customers. Following the pilot, Fort Collins implemented mandatory time-of-use rates.

In 2018, all three of California's IOUs conducted a one-year default TOU pilot. Within San Diego Gas & Electric's service territory, 95% of participating income-eligible customers either saw no significant changes to average bills or saw annual bill reductions of around 1% on average, while 5% saw bill increases (within a range of +/- \$3 per month).^{49,50} A 1% average annual bill reduction applied to low-income electric customers in New York would translate to over \$42 million in average annual bill savings. Results from one survey of PG&E participants indicated that "over half (53%) of low income customers that ultimately saved money after their first year on the rate did not report adjusting their behavior in response to the rate."⁵¹ The California pilot saw that winter bills were generally lower compared to usual bills, while summer bills were higher – which may point to intersecting equity implications for air conditioning access and use during extreme heat events. In some cases low-income customers saw bill increases overall. Farther below, the report addresses in more detail potential guardrails and complementary policies that can help to mitigate these types of risks from TOU rates. California has now adopted default TOU rates state-wide.

The California and Maryland TOU pilot results suggest a potential range of \$42 million to over \$400 million in average annual bill reductions if the same results were seen for low-income electric customers in New York. Additional savings may also be available if TOU rates for gas customers were implemented. While these results may be illustrative, there is clearly a wide variation in potential impacts from TOU depending on the implementation process, as well as the specific mechanics of the TOU rates themselves.

ADDITIONAL POLICY GUARDRAILS CAN SUPPLEMENT TOU RATES

TOU rates can help low-income customers lower their bills, but these results are not guaranteed. There are several examples of TOU rates leading to bill increases for low-income customers, whether because leaky homes undermine efforts to pre-cool or pre-heat buildings during cheaper times of the day, or because customers feel like they have done all they can to shift or reduce their usage.⁵² There are several important guardrails and complementary policies that can help to deliver the intended benefits of TOU rates. For example:

- **TOU rates and related bill charges must be actionable.** In order to effectively motivate shifts in usage and avoid diluting price signals, on-peak time periods must be sufficiently narrow (e.g. 4 hours or less), and the differential between on-peak and off-peak prices must be appropriately sized. Studies show that an annual average price differential between on-peak to off-peak prices should be at least 3 to 1 to help optimize customer responsiveness.⁵³

Moreover, other rate mechanisms such as Critical Peak Pricing or Peak Time Rebates, which target the highest peak hours of the year, can provide further incentives to reduce demand during these periods, ultimately helping to avoid the need for costly grid upgrades that are specifically designed to handle those highest usage hours. And by incorporating seasonality, for instance, TOU rates could reflect changing dynamics of peak energy usage throughout the year, which would provide more accurate price signals to customers and provide more opportunity for bill savings. While existing TOU rates in New York include a high peak-to-off-peak price differential, the daily peak periods themselves may be too wide to effectively incentivize changes in demand. Instead, narrower peak windows would provide a clearer price signal and would make it easier for customers to save on utility bills.

With respect to gas rate design in particular, there exist multiple examples of rate structures in need of reform that – if remedied – could help drive lower energy burdens for LMI households. These include, in particular, declining block rate structures and high fixed charges. First, declining block rates can affect the ability of lower usage customers to achieve bill savings through energy efficiency or conservation measures. Secondly, customer charges and other fixed charges—which are not unique to gas rates—impose fixed monthly charges

that are impossible for customers to reduce or bypass and are often quite significant. As a result, changes to mitigate or eliminate the impact of these existing rate structures could help ease LMI energy burdens and further reduce the total cost of excess energy burdens across the State.

- **TOU rates must account for “outlier” customers, such as a low-income household with high usage that may be unable to meaningfully shift demand.** For example, a low-income customer that lives in a poorly insulated house and uses electric resistance heating, or a customer that operates essential medical devices, may find themselves with higher-than-average electric demand but without the means to effectively respond to a TOU rate. In these cases, TOU rates may lead to higher bills if customers are unable to shift demand. Special attention must be paid to mitigate the risk to low-income, high usage customers that may be penalized by higher on-peak volumetric rates if they are unable to adequately shift load to cheaper times of the day. Excluding specific customers from TOU rates or providing guaranteed bill caps (see below) may help mitigate the risk of negative outcomes from TOU rates.
- **Despite the benefits that TOU rates can provide to low-income customers, complementary bill protection measures should also be considered.** For example, utilities could provide guaranteed bill caps for low-income customers so that they do not face bill increases during the transition to a TOU rate for a certain period of time (e.g., the first year of TOU implementation). Bill protections may be especially important during more expensive months when customers may be less able to afford periods of higher bills, even as they face lower bills at other times of the year. It is important to consider that while the outcome over an entire year of a TOU is a net positive for low-income customers, low-income customers may nevertheless be unable to afford bills that are higher than their previous bills during peak months.⁵⁴
- **TOU rates can be more effective when combined with enhanced weatherization, appliance upgrades, and electrification incentives, all of which can help support greater load flexibility.**
- **TOU rates require robust customer outreach and education programs to raise awareness and to inform customers about the potential benefits TOU rates can provide and the actions customers can take to achieve those benefits.**
- **Broad deployment of TOU rates should include sufficient transition periods.** Shadow billing and a gradual introduction of TOU rates over time can help increase customer familiarity and comfort with TOU rates before full rollout.
- **Seasonal technology-specific rates can lead to even more benefits.** For example, heat pump specific rates which include lower volumetric rates in the winter can further help to lower the cost of electrification for low-income households. The Massachusetts DPU’s recent decision in National Grid’s rate case to offer seasonal heat pump rates could serve as a useful model. The rate will support affordable electrification goals by decreasing base distribution volumetric charges for customers with heat pumps during the winter. This will help to avoid penalizing customers as their electric usage increases after installing a heat pump. Notably, given recent increases in gas rates in Massachusetts, analysis from the MassSave Program Administrators indicates that customers with a heat pump and enrolled in a heat pump rate would effectively break even in terms of annual bills compared to annual bills for a gas customer (see graph below in Figure 9).
- **Certain state-specific protections may be necessary during implementation of TOU rates.** For example, while California has implemented opt-out TOU rates for most residential customers, the California Public Utilities Commission (CPUC) determined that economically vulnerable customers who live in hot climate zones should be excluded from default TOU rates, given the importance of air conditioning in the summer and the risk of disproportionately high summer bill impacts.

PERCENTAGE OF INCOME PAYMENT PLANS (PIPPS)

Another major category of rate design-related offerings to manage energy burdens includes Percentage of Income Payment Plans, or PIPPs. A number of states have introduced and explored PIPPs to explicitly limit and manage utility bill expenses to a stated portion of a household’s income (e.g., 6%). They target a similar outcome as direct bill discount programs for LMI households but are calibrated even more precisely to tie payments and costs to

household income. A PIPP explicitly caps energy costs as a percentage of household income, helping to keep energy costs more affordable for low-income households. A PIPP can be designed so that no customer experiences a total energy burden greater than 6%.

A PIPP differs from low-income discount rates, which tend to provide a flat percentage bill discount to eligible customers. A PIPP has advantages over a discount rate because PIPPs are based on a specific percentage of household income. As a result, if rates increase over time, households enrolled in a PIPP are held harmless given that the commensurate benefit provided increases as well. A low-income discount rate does not necessarily guarantee a specific energy burden cap for low-income customers. Under a tiered discount rate, the relative value of the discounts decreases as bills increase, so households are not held harmless to the same degree as under a PIPP. A PIPP can also be designed such that signals to reduce energy consumption and pursue energy efficiency are maintained. Contrary to some critiques of PIPPs, they do not by themselves encourage unlimited energy usage.

Unlike traditional low-income discount rates, multi-tiered discount rates could provide a way to provide greater benefits to customers who face disproportionately high energy burdens. Tiered discount rates provide a range of bill discounts depending on household income as a percentage of Federal Poverty Level (FPL). A recent National Grid rate case in Massachusetts provides a useful example: rather than a flat 32% discount for all eligible customers, the approved multi-tiered discount rate will provide between 32-71% in bill discounts depending on income tier. While multi-tiered discount rates may enable more granularity, tiered discount rates do not guarantee a specific energy burden cap, unlike a PIPP.

Both low-income discount rates and PIPPs could allow customers to use the cost savings they derive from those programs to potentially invest in more solutions like energy efficiency and solar PV than they otherwise could under high energy burden conditions. A PIPP in particular could allow and motivate more customers to electrify by mitigating concerns over higher energy bills as a result of installing a heat pump, for example.

States do have to consider how best to make up the costs that would otherwise be borne by these households, through a combination of funding via other ratepayers, taxpayer injections, or via other sources. New York could consider evolving its EAP program regime into a more explicit PIPP structure for all or a subset of LMI customers as part of a holistic strategy to combat excessive energy burdens. Any consideration of a PIPP should include an assessment of how best to design a program for customers who may experience regular changes in monthly or yearly income in order to avoid placing undue burden on participating customers to prove eligibility.

INCOME-GRADUATED FIXED CHARGES

Some jurisdictions are also considering income-graduated fixed charges as another rate design solution to ease high energy burdens. For example, the California PUC (CPUC) recently approved multiple fixed charge tiers based on income. Income-eligible customers will receive either a \$6 or \$12 fixed charge depending on income level, while all other customers will see a \$24 fixed charge.⁵⁵ By restructuring fixed charges in this manner, the CPUC was able to lower volumetric distribution rates, partly with the aim of making electrification more cost-effective. The state's three investor-owned utilities will begin implementation in late 2025 and early 2026. While the CPUC stated that income-graduated fixed charges and lower volumetric rates would together support the state's long-term electrification goals, opponents argued that customers with low electricity demand who do not receive bill discounts would pay more than they otherwise would have. While the full impact of the decision remains to be seen, it highlights the importance of taking a comprehensive approach to solutions intended to address energy burden and to recognize the potential for downstream effects on other policy priorities.

CAP-AND-INVEST REBATES

The development of New York's economy-wide cap-and-invest program is a major new factor that will shape the trajectory of energy burden discussions and policymaking in New York State. While the program is under development by NYSDERDA and NYSDEC and 1-2 years away from generating revenue from allowance proceeds, those revenues will be significant – very likely in the billions of dollars per year in total. New York State is currently planning to dedicate roughly 30% of overall proceeds to a Consumer Climate Action Account (CCAA) that would distribute



Other Notable Energy Burden Activity: Massachusetts DPU Energy Burden and Affordability Investigation

In February 2024, the Massachusetts Department of Public Utilities (DPU) opened an energy burden and affordability investigation (DPU 24-15) to identify existing energy burden challenges and collect input on potential solutions. The DPU specifically requested input on Percentage of Income Payment Plans (PIPPs) and multi-tiered low-income discount rates. The DPU determined that there was consensus among stakeholders on the need for energy affordability programs to be designed so that household energy burden does not exceed six percent. Despite input from a broad set of stakeholders on the potential benefits of PIPPs, the DPU decided not to move forward with evaluating PIPPs at this time but instead would focus specifically on multi-tiered discount rates. The DPU noted that multi-tiered discount rates may be less administratively complex compared to a PIPP. While the DPU did not formally close the door on PIPPs in the future, it noted that by avoiding administrative delays that may result from implementing a PIPP, multi-tiered discount rates could enable the DPU to “address energy affordability and provide meaningful benefits to customers soon rather than later.” (DPU 24-15-A, Interlocutory Order on Next Steps In Investigation of Energy Affordability, September 12, 2024, at 5). The DPU energy burden investigation is still underway.

rebates back to households. Preliminary **modeling** “conducted by the State found total revenue by 2030 estimated to be \$3 billion or more per year (depending on dollar per allowance auction results). This would leave roughly \$2 billion or more available for decarbonization investments each year and roughly \$1 billion or more available to be delivered back to households via rebates under the CCAA to reduce energy and transportation cost burdens. While these rebates will generally be used to offset new costs driven by Cap-and-Invest, the State has projected preliminarily that millions of households will likely “break even” after Cap-and-Invest, especially lower income and low energy use households—creating deeper opportunities for energy burden reductions.⁵⁶

In December 2023, NYSERDA and NYSDEC—working with the Division of the Budget and the State Departments of Taxation and Finance and Public Service—released a **Climate Affordability Study** to consider how best to deliver New York Cap-and-Invest proceeds to New Yorkers.⁵⁷ While Cap-and-Invest aims to affect and address more than just energy burden (i.e., it will also affect transportation costs and burdens), the distribution of Cap-and-Invest proceeds represents an important delivery mechanism for addressing energy burdens and helping provide relief to households currently facing energy burdens greater than 6%.

The Affordability Study expressly states as a core program objective that “The CCAA benefit should be designed to deliver maximum assistance to low- and middle-income households, including those in DACs, to help alleviate higher energy burdens. The CCAA benefit should be designed to reach as many low-income households as possible.” The Study proposes a number of mechanisms to help achieve this, including by excluding high-income households, gradually phasing-out the CCAA benefit by adjusted gross income (AGI) above a determined income level, scaling

benefits received by region, and utilizing a per capita calculation (to alleviate higher energy costs borne by households with more individuals).

The State’s study reviewed a variety of programs that have set up a framework to provide funds to residents, both under various market-based programs, like New York’s Cap-and-Invest program, as well as other types of social benefit programs. The study determined that there is unlikely to be a singular option that will allow the State to achieve the goals of providing Cap-and-Invest rebates to the residents that need them the most, and that the State will instead likely need to consider a distribution framework that combines multiple approaches in a waterfall delivery structure, including a refundable tax credit in conjunction with other benefit delivery programs and a supplemental application processes. While the distribution and sizing of CCAA benefits can and should seek to alleviate both energy and transportation burdens, it can specifically be designed to address households with energy burdens greater than 6% to ensure those households are held harmless (i.e., they “break even”) under Cap-and-Invest and can benefit from even deeper savings. This should be woven directly into all of the potential mechanisms under consideration by the State for CCAA benefits distribution, including:

- Refundable tax credits: “. . . a refundable credit reduces tax liability by the full amount of the credit. If the resulting tax liability is negative, a refundable credit refunds the excess credit amount to the filer. Hence, a refundable credit could potentially reach the entire population, including low-income residents. . . .” If structured primarily as a refundable tax credit, the CCAA benefit could allow filers to report and document energy costs on their taxes and potentially receive a multiplier or adder to their CCAA benefit when those costs exceed 6% of AGI.
- Other benefit delivery programs: One issue with refundable tax credits, however, is that in practice, many lower income households fail to file and claim refundable credits for which they are eligible. So, as the State considers other benefit delivery programs to broaden the reach of CCAA benefits, there too could households receive greater benefits (multipliers or adders) through a demonstration of energy burdens exceeding 6%.
- Supplemental application process: Finally, for any households who are not reached through tax credits or other targeted delivery programs, any supplemental application process made available to households could also allow for the opportunity for energy burdened households to apply for and receive greater CCAA benefits (multipliers or adders). This would presumably allow them to receive greater assistance, whether provided through direct payments (cash or cash equivalent), supplemental utility bill assistance, targeted vouchers, or otherwise.

CAP-AND-INVEST DECARBONIZATION INVESTMENTS

On the flip side of the ledger described above, and perhaps more important for addressing existing energy cost burdens (i.e., those being experienced now, before Cap-and-Invest takes effect), Cap-and-Invest will also bring in billions of dollars per year for New York State to use toward decarbonization and energy-reducing investments. As stated above, this could mean roughly \$2 billion or more available for decarbonization investments each year. While the State has not yet committed to any specific allocation of these investment dollars, they used an illustrative breakdown of priority investment areas in **January 2024 Preliminary Scenario Analysis Modeling** that identified building decarbonization efforts in the residential LMI sector as the single largest “pot” of investments by size (33% of all revenue being put toward decarbonization investments).⁵⁸

At a modest level of total revenues projected by the State for the early years of the program, this could mean upwards of \$650 million per year available to invest in making LMI housing units cleaner, more efficient, and more affordable. This amount of funding could take a number of potential forms. If it were put toward an EmPower+ style program offering fully subsidized energy efficiency retrofits for LMI households (at roughly \$10,000 per household), then the State could fund comprehensive efficiency retrofits for to 65,000 households or more per year—greatly reducing those households’ energy burdens and thereby the statewide total of excess energy burdens being experienced. Funding for large multifamily building retrofits would likely be more expensive on a \$/housing unit basis, but regardless, hundreds of millions of dollars per year in funding could easily deliver comprehensive efficiency retrofits to tens of thousands of MFH units per year. Other elements of the market – workforce, supply chain, marketing and engagement, etc.—would need to increase to effectuate this, but Cap-and-Invest proceeds can provide the financial wherewithal for this scale of deployment.

DISBURSEMENTS FROM THE GENERAL FUND

And finally, as referenced above, New York State has in recent years begun directly allocating significant funding from the state budget to help reduce energy burdens, both via utility bill relief as well as via programmatic funding for comprehensive energy efficiency retrofits. These efforts are inherently year-by-year given the nature of the budgetary process in New York—unless, like Homes and Community Renewal’s Five-Year Capital Plan, the State moves toward a multi-year budgeting plan for energy burden/efficiency funding support. In the future, the State could conceivably continue to address these issues with supplemental funding support, including via both tax credits (e.g., for sustainable low-income housing new construction or substantial rehabilitation), direct funding allocations (e.g., for repeats of the \$200 million allocations toward utility bill discounts and EmPower+ seen in 2023), and potentially injections into affordable housing developed and managed by the State through Homes and Community Renewal (HCR). Matching funding could also be provided to support local affordable/public housing energy burden relief efforts as well, for example in partnership with New York City Housing Preservation and Development (HPD) and the New York City Housing Authority (NYCHA).

Adding It All Together

To get a sense of the scale of these program and policy levers, it is possible to tally up the annual funding known and projected for the solutions as follows. This is an attempt to build on and project out from the State’s current energy burden relief efforts, which currently total \$1.4 billion per year in 2024.⁵⁹ This summation is intended as a rough approximation and requires assumptions and projections about future funding availability, including in some cases where administrative approval is uncertain. Where applicable, this table includes the low-end of funding projections to err on the conservative side. And finally, not every dollar invested toward energy burden relief will translate to savings in the same way (e.g., \$1 for EAP vs. \$1 for EmPower+), and this is true not just for the new items below but for all the items currently included in the State’s \$1.4 billion sum (the top 6 rows in the table below).

Policy and Program Levers	Approximate Funding Amount/Year	Notes/Sources
Energy Assistance Program (EAP)	\$380 Million - \$570 Million	Currently capped at 2% of total electric or gas revenues for sales to end-use customers for each utility. NY HEAT would increase to 3%. 3% would likely translate to at least \$570m. EAP is supported by ratepayer surcharges and recent infusions of on-budget funding.
Home Energy Assistance Program (HEAP)	\$360 Million	2024 funding level, per State. It is funded by federal appropriations to the Department of Health & Human Services, which then distributes funds to states.
EmPower+ Program	\$200 Million	From FY2024 State Budget. Funded through ratepayer surcharges, RGGI revenues, and on-budget support.
Supplemental Utility Bill Discounts	\$200 Million	From FY2024 State Budget. Funded by recent on-budget appropriation.
Statewide LMI portfolio and NY-Sun (ratepayer funded programs)	\$200 Million - \$225 Million	Likely to grow in 2026-2030 (\$225 million/year proposed for EE/BE). Funded through ratepayer surcharges via utilities and NYSERDA.
Weatherization Assistance Program	\$70 Million	2024 funding level, per State. It is funded by federal appropriations to the Department of Energy, which then distributes funds to states.
Statewide Solar for All (NY)	\$32 Million	PSC approved May 2024. Funded through ratepayer surcharges.
Regional Greenhouse Gas Initiative (RGGI) Program Funding	\$80 Million	\$275 million over four years, plus \$47 million for LI (assumes 50% DAC/LMI). Funds are generated through the auction of emission allowances.
Federal Funding Through the IRA and IIJA	\$25 Million	Reflects only 40% for Justice40—may be higher. Federally funded; full availability of funds now uncertain.
Cap-and-Invest Decarbonization Investments – LMI buildings EE/BE	\$660 Million	Low-end of preliminary projection for 2030, reflects non-decisional modeling split of ~33% of overall NYCI decarbonization investments toward energy efficiency and building electrification in LMI buildings. State-funded through cap-and-invest revenues.
<i>NYPA REACH Credits</i>	Impact unknown	
<i>Advanced Rate Design</i>	Impact unknown	
<i>Disbursements from the General Fund</i>	Unknown/TBD	<i>Could reflect spending via HCR, DASNY, etc.</i>
<i>Federal Solar for All Award</i>	\$250 Million	<i>EPA funding for solar projects benefitting low-income households awarded in April of 2024</i>
<i>Other State and Federal Financing Opportunities</i>	Unknown/TBD	<i>Sources could include: NY Green Bank Community Decarbonization Fund (\$250 million); U.S. EPA GHG Reduction Fund (\$27 billion); others.</i>
COMBINED TOTAL	\$2.45 Billion (or more)	

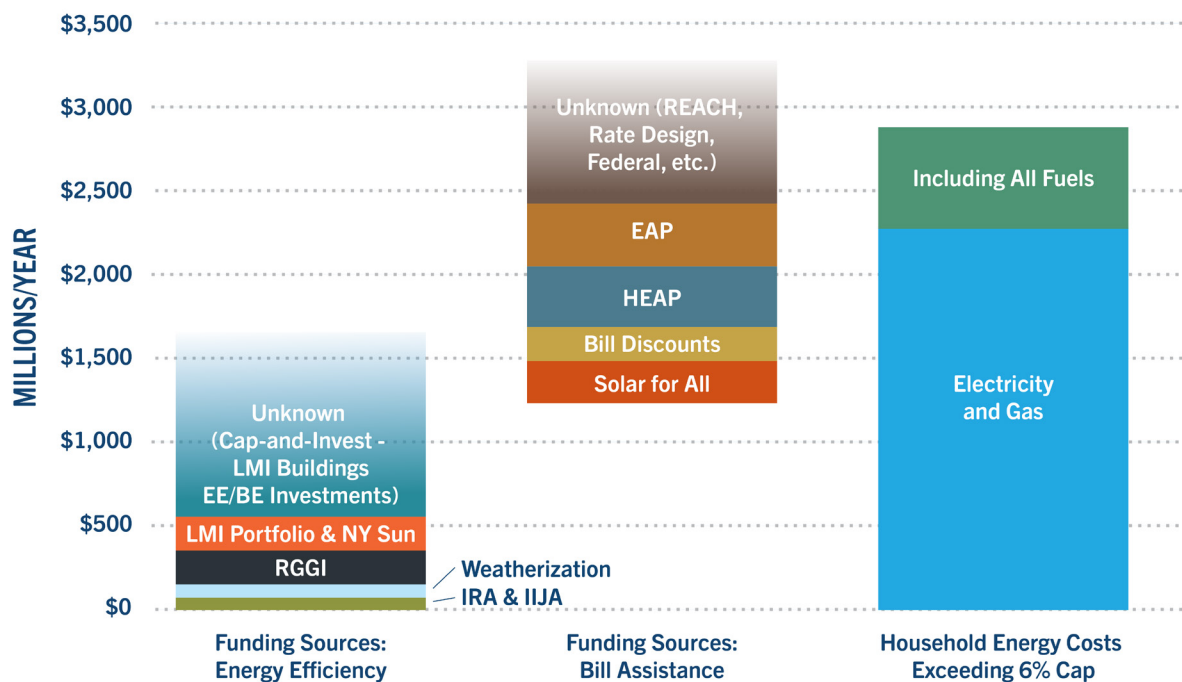
Bold = Existing/Known/Reasonable to estimate

Italics = Future/Unknown/Difficult to estimate (would contribute to “Unknown” funding amounts below, top left)



FIGURE 7

Approximate Funding Amount per Year vs. Total Cost of Total Excess Energy Burden



Note: Some current programs already in place may be providing some relief from the \$2.2b gap - e.g., supplemental utility bill discounts provided retroactively after census data reporting was conducted. Nonetheless, the lion's share of the identified \$2.2b gap remains to be addressed via new supportive programs and new infusions to existing programmatic efforts.

Conclusion

This report highlights a suite of policy interventions and funding strategies available in NYS to make progress toward a 6% energy burden cap. Based on this analysis, closing the gap between the State's existing energy burden relief efforts and \$2.28 billion, the cost found to address LMI excess energy burdens, appears not only feasible, but realistic for New York to strive toward in the years ahead. Addressing the \$2.28 billion that accounts specifically for electricity and gas energy burden is even more possible with the funding sources available in NYS. Codifying a 6% total energy burden cap in law would provide a renewed focus on the State's existing 6% policy goal and thereby spur enhanced relief for the approximately 2 million households, including renters (73%) and non-renters (27%), who make up the total \$2.86 billion cost observed today. Addressing energy equity with the identified measures would advance New York down its path of leadership on energy equity as the State continues to implement its climate and clean energy transition under the Climate Leadership and Community Protection Act (CLCPA), and doing so would serve as a prime example throughout the rest of the Northeast and nation at large on how to tackle energy justice in parallel with emissions reductions.

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