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March 1, 2024

Mark D. Marini, Secretary
Department of Public Utilities
One South Station, 3rd Floor
Boston, MA 02110

Re: ***Notice of Inquiry by the Department of Public Utilities on its own Motion into Energy Burden with a Focus on Energy Affordability for Residential Ratepayers,*** **D.P.U. 24-15**

Dear Secretary Marini:

The Office of the Attorney General ("AGO") submits these Initial Comments in response to the questions in the Department of Public Utilities' ("Department") January 4, 2024 Vote and Order Opening Inquiry. Vote and Order Opening Inquiry, at 13-16.

The AGO appreciates the Department's consideration of the many challenges related to energy affordability and looks forward to engaging with the Department and stakeholders throughout this inquiry. The concepts and examples discussed in these Initial Comments are offered for discussion purposes; in several instances, the AGO recommends that the Department consider or explore ways to address affordability. Before the AGO endorses a specific program or rate design, however, the AGO will need to closely review program details, costs, and bill impacts. The AGO, therefore, presents its attached responses to the Department's questions as *initial* responses and intends to closely review and consider the filings submitted by the utilities and other stakeholders in order to better inform future comments by the AGO.

The AGO also notes that, due to the compressed time period between when the NOI was issued and the March 1, 2024, filing deadline, as well as the complexity and importance of the many issues involved, the AGO was not able to analyze all data that may be relevant to the Department's questions that have been filed in prior and active proceedings. The AGO will continue to work with its consultants and analysts to review relevant data, including the data the utilities file on March 1, 2024, as well as additional data the utilities will provide in the course of this proceeding. With regard to the data the Department has directed the utilities to file on March 1, 2024, the AGO requests the option to provide comments in this proceeding after reviewing those filings.

Importantly, as part of this inquiry, the AGO also is conducting primary research to help elevate customer voices and experiences. The AGO will provide the findings from this research in future stages of this proceeding.

Thank you for this opportunity to offer responses to the questions raised in the Vote and Order Opening Inquiry.

Sincerely,

/s/ Jessica R. Freedman
Jessica R. Freedman
Julian C. Aris
Assistant Attorneys General

Enclosures

cc: Laurie Ellen Weisman, Hearing Officer
Service List

B. Design of Residential Energy Affordability Programs

1. As between a PIPP and tiered discount rates (collectively referred to as "energy affordability programs"), discuss the relative advantages and disadvantages of each.

Through a PIPP, a utility delivers energy affordability in a precise way, with ratepayer bills set at an affordable percentage of that household's actual income. By way of example, the PIPP framework incorporated into legislation unanimously adopted by the Philadelphia City Council in December 2015 sets forth the essential elements that could serve as a model in Massachusetts. The legislation provides that: "bills shall be affordable for low-income households, based on a percentage of the household's income . . . ."[1] Each low-income customer's bill, the legislation directed, shall be "based upon each Customer's actual income" and "shall be charged in lieu of the Department's service, usage, and stormwater charges."[2] The following key policy decisions are incorporated into this language:

- "Bills shall be affordable." The legislation mandates a specific *outcome*—an affordable bill for low-income customers—rather than a certain level of discount.
- Affordability is specifically defined as "based on a percentage of the household's income." It is not just an undefined concept framed as a vague objective.
- Affordability is to be "based upon each Customer's actual income." It is not based on an estimated or average income, or on aggregate data representing a certain group.

Thus, through a PIPP, a utility provides a ratepayer with the amount of assistance—but *only* that amount—required for an affordable bill. If a customer does not need assistance, that customer will not receive such assistance.

A tiered discount rate ("TDR"), by comparison, is not as precise as a PIPP. Even a multi-tiered TDR (e.g., a TDR with five tiers) will "overpay" some customers while "underpaying" others. For example, a TDR will give some customers more assistance than would be required to make their bill "affordable" (e.g., a customer in need of $200 in assistance may receive $300), and gives others less assistance than required (e.g., a customer in need of $600 in assistance receives only $400). Because discounts under a TDR are (generally) designed to generate bills at an affordable percentage of income for average usage and utilizes income ranges (tiers), a TDR will generate a bill exactly at that "affordable" level in the rare instance where a customer with the average income for the tier uses the average amount of energy. Because actual incomes and actual usage typically differ from the averages assumed, the target energy burden will rarely be achieved. This inefficiency is reduced as the number of tiers is increased, but it is never entirely eliminated. A PIPP, based on individual household income, does not have the same efficiency challenges.

One disadvantage of PIPPs is that they require the utility to know the actual income of each participating household to achieve the affordability precision discussed above, which may increase administrative and implementation costs that will be passed on to ratepayers. With TDRs, a utility

[1] Amended Philadelphia City Code, §19-1605(3)(a) (2017).

[2] *Id*.

can provide categorical eligibility[3] and automatic enrollment for a subset of eligible customers assuming data sharing agreements are in place with entities administering other income-based programs. Through automatic enrollment, utilities can provide at least some level of discount to many low-income customers because knowing the customer is eligible for certain other programs serves to verify eligibility for the utility energy affordability program. Depending on the number of income tiers and the specific income range for each tier, as well as the income-based programs that the utility relies on for categorical eligibility, the utility may still need to inquire into each household's specific income. The data sharing advantage of TDRs could be constrained depending on the tiering design.

If the Department decides to implement a PIPP, the AGO recommends that the Department consider blending the advantages of PIPP and TDRs by adding a baseline flat discount rate to the PIPP program that is applied automatically to households that demonstrate income eligibility for the program, but for which the additional data necessary to administer the PIPP is not yet available. This discount should be the lowest provided by the program and may fall short of meeting the household's energy assistance needs; however, at least it would guarantee that *some* assistance is provided to households in need while more detailed income about the household's income and expenditures is gathered and processed. The implementation of the discount could then also be used to create a communication opportunity with these customers and help increase recruitment to the more holistic PIPP program, the assistance from which would then replace the minimalist baseline flat discount rate.

2. Discuss how the Department should address the "cliff" experienced by customers who have an increase in income that is sufficient to remove their eligibility for assistance programs but insufficient to ease the energy burden to the comparable level prior to the income increase.

The goal of eligibility criteria for an energy affordability program is to ensure that assistance goes to those who need it, while those deemed ineligible for assistance are in fact those who do not need it. Ideally, the "cliff" manifests less as a precarious drop in financial safety and more as a transition into a self-sufficient financial space. The AGO notes that with a PIPP, there will be no "cliff" because bills are tied to energy burden.

Because drawing the eligibility line is necessary but inherently imprecise and cannot capture the nuances of individual household circumstances, the AGO recommends that the Department explore programmatic elements designed as "cushions" for those ratepayers just under and just over the eligibility threshold. The AGO notes that "cushions" are not needed under a PIPP; there is little to no "cliff" because as customers approach the eligibility threshold, their income grows large enough that their bill is "affordable" without assistance. For TDRs, programmatic "cushions"

[3] As discussed further in D.1, categorical eligibility means that a household is considered to have "automatically passed an income eligibility test because a household member has already been determined to meet income eligibility requirements" for another means-tested benefit. U.S. Department of Health and Human Services, *Low Income Household Water Assistance Program Information Memorandum* (September 28, 2021) https://www.acf.hhs.gov/ocs/policy-guidance/lihwap-im-2021-04-categorical-eligibility-fy2021.

would ensure that households that are no longer eligible for a discount are the households that have actually reached a place of self-sufficiency.

There are several considerations and potential strategies with regard to a "cushion" for households transitioning across the income eligibility threshold for the energy affordability program. One such mechanism the AGO recommends the Department explore is the implementation of "income disregards." For the purpose of determining eligibility and the amount of assistance a ratepayer would receive under a PIPP, income disregards exclude certain sources of income, and certain expenses are deducted from a household's income. A household's actual gross income may therefore differ from the household's "countable income," i.e., the income used for the purposes of a program.

One prime example is costs for delivered fuel. Recent data shows that 27 percent of Massachusetts residents use delivered fuels (e.g., heating oils) to heat their homes.[4] As reflected in Table 1, heating-oil expenditures are at least twice as high as natural gas expenditures for all years included.

Table 1: Heating expenditures for the winter season[5]

Year	Estimated Heating Expenditures by Technology Type ($)			
	Natural Gas	Electric Resistance (Baseboard) Heat	Heating Oil	Propane
2022/2023	907	1,080	2,023	1,492
2021/2022	790	712	1,927	1,636
2020/2021	623	594	1,165	1,286
2019/2020	603	619	1,365	1,215
2018/2019	653	636	1,649	1,459

These often-significant heating costs from delivered fuels will not be reflected in a customer's utility bills and so will essentially be invisible for the purposes of determining eligibility and the appropriate level of discount under energy affordability programs.

Within the context of a TDR, income disregards for delivered fuel expenses (and/or for factors like particularly inefficient heating systems and particularly poor insulation) could help ensure that participants are placed into an appropriate tier and that they receive an appropriate level of discount

[4] EIA, *U.S. State, Massachusetts, State Profile and Energy Estimates*, https://www.eia.gov/state/?sid=MA#tabs-5.

[5] In this Table winter and heating season mean the period between November and March. For example, the 2022/2023 heating season is November 2022 to March 2023. DOER, *Massachusetts Household Heating Costs (last updated November 10, 2023)* https://www.mass.gov/info-details/massachusetts-household-heating-costs.

consistent with their actual energy burden (as opposed to meeting only their theoretical needs as determined by household income as the single dispositive metric).

Income disregards have been successfully used in a wide variety of programs, from Medicaid and the State Children's Health Insurance Program ("SCHIP")[6] to the Supplemental Nutritional Assistance Program ("SNAP," formerly the Food Stamp Program).[7] The Center on Budget and Policy Priorities notes that "[d]eductions play an important role in determining SNAP benefits. They reflect the fact that not all of a household's income is available for purchasing food; some must be used to meet other needs."[8] SNAP, for example, permits the following deductions that the AGO believes merit consideration in the energy affordability program context:

- *dependent care deduction* for the out-of-pocket childcare or other dependent care expenses that are necessary for a household member to work or participate in education or training;
- *child support deduction* for any legally obligated child support that a household member pays;
- *medical expense deduction* for out-of-pocket medical expenses greater than $35 a month that a household member who is an older adult or has a disability incurs; and
- *excess shelter deduction*[9] set at the amount by which the household's housing costs (including utilities) exceed half its net income after all other deductions.[10]

Integrating consideration of household expenses into a program's eligibility and benefits determinations increases the efficacy and efficiency of the program by tailoring the assistance to the needs of each household, based on the specific circumstances for that household. This approach addresses challenges related to eligible households with an income that may send a misleading signal about the household's actual financial capacity to live safely and self-sufficiently without aid, and enhances the program's capacity to adjust the assistance provided to all participants based on their individual circumstances. Income disregards are, essentially, a mechanism for adapting a program's service to a more holistic and comprehensive understanding of each participating household. Moreover, the programs noted above, as well as other pre-existing programs that successfully employ the use of income disregards, can provide guidance on how

[6] Donna Cohen Ross et. al, *Determining Income Eligibility in Children's health Coverage Programs: How States Use Disregards in Children's Medicaid and SCHIP* (May 2008) https://www.kff.org/wp-content/uploads/2013/01/7776.pdf.

[7] The Center on Budget Policy and Priorities, *A Quick Guide to SNAP Eligibility and Benefits* (last modified October 2, 2023) https://www.cbpp.org/research/food-assistance/a-quick-guide-to-snap-eligibility-and-benefits.

[8] *Id.*

[9] The AGO notes that consideration should be given to designing some guard rails around use of the excess shelter deduction to ensure that higher-income households that have opted to commit a particularly substantial fraction of their income to purchasing or renting a home from using the deduction as a "loophole" to access energy affordability program benefits.

[10] The Center on Budget Policy and Priorities, *A Quick Guide to SNAP Eligibility and Benefits* (last modified October 2, 2023) https://www.cbpp.org/research/food-assistance/a-quick-guide-to-snap-eligibility-and-benefits.

best to design income disregards so they are accessible to target households without creating any loopholes through which higher-income households can access low-income benefits.

The AGO also recommends that the Department consider mechanisms that would insulate moderate income ratepayers from the costs of the energy affordability program. For example, efforts could be made to isolate the costs of the affordability program to ratepayers at above 80% percent Area Median Income ("AMI"),[11] which would provide some "cushioning" with respect to the "cliff" that emerges at the eligibility cutoff by helping ensure that, while a customer moving from sixty percent to sixty one percent AMI may lose the assistance of the affordability program, they do not also then find themselves shouldering the costs of the affordability program. Additionally, the Department should consider options such as extended payment plans, additional shutoff protections, and additional hardship grants to provide appropriate assistance and protections for those in the moderate-income range.

3. Discuss how eligibility for an energy affordability program should be determined. Is the eligibility threshold different depending upon whether it is related to a PIPP or tiered discount rates? Should eligibility be based on the FPL or SMI? Are there other options?

At this time, the AGO recommends that energy affordability program eligibility be based on AMI. Another option is to base eligibility on energy burden, rather than only on an income threshold (a PIPP pairs income thresholds with energy burden thresholds). As part of this proceeding, the AGO recommends that the Department consider how an eligibility threshold based on energy burden could be designed. As discussed in D.1, the AGO further recommends that energy affordability programs provide for categorical eligibility (paired with automatic enrollment), based on a ratepayer qualifying for other means-tested benefits.

Eligibility for energy affordability programs generally takes one or more of the following forms: (1) eligibility based upon a percentage of State Median Income ("SMI"), AMI, or Federal Poverty Level ("FPL"); (2) eligibility based upon a certain percentage of income spent on energy (i.e., energy burden); and (3) categorical eligibility.

AMI, SMI, and FPL Eligibility

The AGO recommends that the Department consider using AMI at least initially to design an eligibility threshold because AMI takes geographic diversity into account, which SMI and FPL do not. For example, according to the Massachusetts Department of Housing and Urban Development ("HUD"), the 2023 eighty percent AMI for a family of four in Berkshire County was $79,700, compared to $118,450 in Boston.[12] While AMI does not directly account for geographic

[11] AMI is the midpoint of a specific area's income distribution, calculated on an annual basis by the Department of Housing and Urban Development ("HUD"). AMI is based both on household size and a percentage of the annual average income in a specific geographic area.

[12] HUD Regional Housing Services Office, *FY 2023 Section 8 Income Limits* https://www.rhsohousing.org/sites/g/files/vyhlif421/f/uploads/2023_income_limits_ma_5.15.23.pdf.

differences in the cost of living and cost of housing, it does account for geographic-based differences in median income, which research has shown to be correlated to cost of living.[13]

While SMI and FPL metrics are useful, neither considers localized contexts – such as county-specific housing costs and other local costs of living, or income disparities, all of which can vary significantly throughout the Commonwealth. FPL is a relatively flat measure that does not account for local area costs of living. In an October 2023 policy brief, the American Council on an Energy Efficient Economy ("ACEEE") recommends that policymakers *"use caution when relying on a single indicator of energy affordability."*[14] The Center for American Progress notes that FPL does not account for housing costs, transportation, childcare, or medical costs.[15] AMI has been used elsewhere to determine affordability program eligibility thresholds and its narrower scope likely better targets households that need assistance than SMI or FPL metrics.[16]

Energy Burden Eligibility

Prior literature has demonstrated that different households experience energy burden in different ways, and that the relative simplicity of the single energy burden metric may be inadequate in capturing all households that suffer from energy poverty. Low-income households may engage in "energy-limiting behaviors" that reduce energy consumption (and thus energy burden) but lead to unsafe or unhealthy living conditions, as discussed in B.5. For example, studies show that some households will keep their indoor air temperatures at unsafe levels – too cold during the winter or too hot during the summer – with concerning health and safety implications.[17] An assessment of these households' energy burden would yield artificially low figures that imply a higher level of energy affordability than actually exists, because these households are reducing energy costs by

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[13] L. Bauer, et al., *Where Work Pays: How Does Where You Live Matter for Your Earnings* (July 2018) ("Figure 4 shows median annual earnings versus cost-of-living index by location and region. Note the clear upward sloping relationship: higher-earning areas (the x-axis) tend to be those with higher cost of living (the y-axis).") https://www.hamiltonproject.org/publication/paper/where-work-pays-how-does-where-you-live-matter-for-your-earnings/; Campbell Jr., H., *Income and Cost of Living: Are Less Equal Places More Costly?* (August 28, 2021) (noting that, at the outset of regression-based work investigating connections between cost-of-living and other variables, "virtually all cost-of-living studies included demand-side factors expected to be positively related to living costs, including . . . median household income. Reflecting the fact that most household consumption is devoted to normal goods, these factors were invariably positive and significant predictors of living costs.") https://onlinelibrary.wiley.com/doi/full/10.1111/ssqu.13017.

[14] American Council for an Energy Efficient Economy (ACEEE), *Toward Affordable Energy Access: Approaches to Reducing Energy Unaffordability, Arrearages, and Shutoffs* (October 2023) https://www.aceee.org/sites/default/files/pdfs/toward_affordable_energy_access_-_approaches_to_reducing_energy_unaffordability_arrearages_and_shutoffs_-_encrypt.pdf.

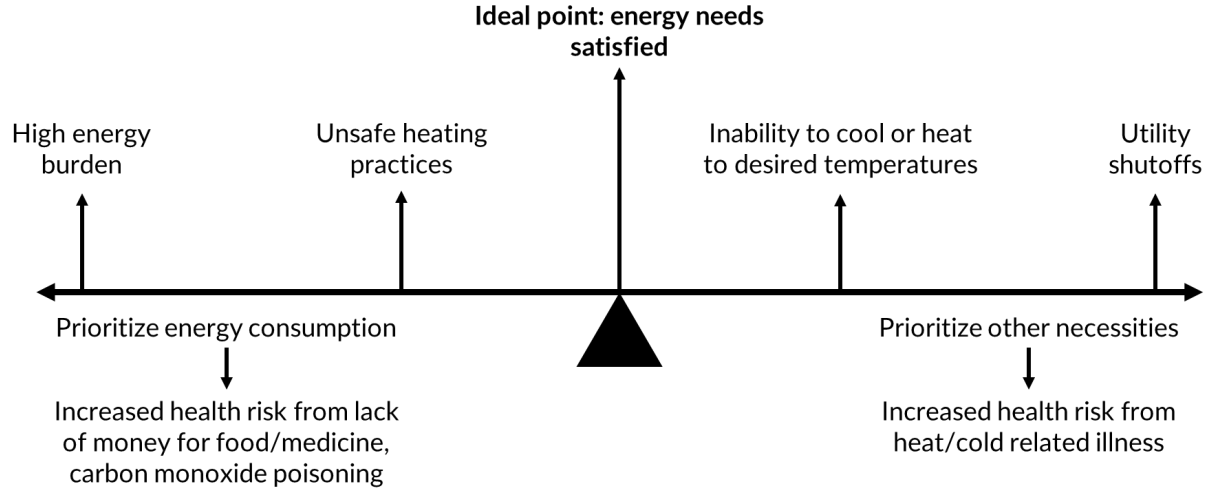
[15] Center for American Progress, *The Poverty Line Matters, But It Isn't Capturing Everyone* (March 5, 2022) https://www.americanprogress.org/article/poverty-line-matters-isnt-capturing-everyone/.

[16] The California Energy Commission established the California Equitable Building Program with the goal of reducing greenhouse gas emissions and progressing energy equity. The program provides direct installations at little to no cost for low-income households, including for energy efficient appliances, energy efficiency measures, and other upgrades. Income thresholds are set at 80 percent county AMI for single family household. California Energy Commission, Docket 22-DECARB-03, *Equitable Building Decarbonization Program*, Docket log available at: https://www.energy.ca.gov/programs-and-topics/programs/equitable-building-decarbonization-program.

[17] Cong, S., et al., *Unveiling Hidden Energy Poverty Using the Energy Equity Gap* (May 4, 2022) https://www.nature.com/articles/s41467-022-30146-5.

engaging in unsafe and unhealthy energy-limiting behaviors. Thus energy burden is a useful metric, but, like AMI, SMI, and FPL, it fails to capture all households that may struggle with energy poverty and affordability when used as the sole metric. The Figure below illustrates how an unaffordable energy burden can force low-income households to choose between one kind of health and safety risk and another—a choice no household should have to make.

Figure 1: A visualization of the difficult trade-offs households make when forced to choose between energy consumption and other necessities.



A well-designed energy affordability program therefore does not determine eligibility using only a single metric, but rather allows a handful of mechanisms through which a household can establish eligibility for the program. By way of example, in 2016 the New York Department of Public Service adopted its statewide energy affordability program ("NY EAP"), which provides income-eligible electric and gas customers with a discount on their monthly electric and/or natural gas bills.[18] The 2016 NY EAP program substantially expanded the number of benefit programs a customer could demonstrate enrollment in in order to establish eligibility for the program. Where previously customers received the EAP discount if they proved eligibility by demonstrating receipt of a Home Energy Assistance Program benefit, under the 2016 NY EAP program, customers could be automatically enrolled if they already received public assistance from any of a variety of other governmental assistance programs, including, but not limited to: the Home Energy Assistance Program, Veterans Disability or Survivors Pension, SNAP, Medicaid, and/or Federal Public Housing Assistance. Customers could also self-enroll by providing documentation of proof of enrollment in any of these public assistance programs and completing an online application.[19]

If a PIPP is designed to ensure that no participant spends more than six percent of their income on energy bills, then bills below the six percent amount would be considered "affordable" under the

[18] The NY EAP was established with the recognition that low-income customers typically spend ten to 20 percent of their income on their energy costs, representing a significantly higher burden compared to their non-low-income counterparts. New York State Department of Public Service, *Energy Affordability Program*, https://dps.ny.gov/energy-affordability-program.

[19] New York State Department of Public Service, *Energy Affordability Program*, https://dps.ny.gov/energy-affordability-program.

program, and thus would not require any aid through the program. Participation is therefore driven not merely by household income, but rather by the relationship between the home energy bills and the household income. At 60% SMI, for example, a three-person household with bills at or below $4,400 would not require ratepayer affordability assistance. The Table below sets out the annual bill a customer would need to incur in order to require program assistance to reduce their bill to an affordable percentage of income (assuming six percent energy burden and providing SMI and FPL income ranges for the sake of the example).[20]

Table 2: Income and Bills Affordable at 6% Burden by Household Size

	Income by Household Size				Bills at Affordable Bill of 6% Burden			
	1	2	3	4	1	2	3	4
150% FPL	$22,590	$30,660	$38,730	$46,800	$1,355	$1,840	$2,324	$2,808
200% FPL	$30,120	$40,880	$51,640	$62,400	$1,807	$2,453	$3,098	$3,744
250% FPL	$37,650	$51,100	$64,550	$78,000	$2,259	$3,066	$3,873	$4,680
300% FPL	$45,180	$61,320	$77,460	$93,600	$2,711	$3,679	$4,648	$5,616
60% SMI	$45,392	$59,359	$73,326	$87,294	$2,724	$3,562	$4,400	$5,238

Additional discussion related to income verification, energy burden, and categorical eligibility is included in the AGO's response to question D.1 (Program Administration).

4. Discuss whether customers in arrears should be eligible for participation in energy affordability programs. If so, discuss how that debt should be treated.

The AGO recommends that customers in arrears be eligible to participate in energy affordability programs, consistent with current practices.[21] Further, customers in arrears should be targeted for outreach to enable eligible ratepayers to easily enroll in energy affordability programs, arrearage management programs ("AMPs"), and budget billing programs (where bills are the same each month based on estimated bills and reconciled annually). Enrollment in these programs should reduce the risk of the ratepayer falling into arrears in the future.

[20] Mass Legal Services, *2024 Federal Poverty Guidelines* (last updated January 19, 2024) https://www.masslegalservices.org/content/federal-poverty-guidelines-2024; Massachusetts Executive Office of Housing and Livable Communities, *Fiscal Year 2024 Low-Income Home Energy Assistance Program (LIHEAP) Income Eligibility and Benefit Levels* (November 8, 2023) https://www.mass.gov/doc/fy-2024-liheap-income-eligibility-and-benefit-chart-november-8-2023/download.

[21] *See, e.g.,* Vote and Order Opening Inquiry, at 8-9.

At this time, the AGO recommends that debt due to arrearages be spread among all customer classes, rather than among only residential classes. As discussed in the context of revenue shortfall associated with energy affordability programs in B.12, there may be shared benefits across a service territory.

5. Discuss whether energy affordability programs should only apply to a maximum amount of consumption each month.

The AGO does not believe there should be a maximum consumption limit for energy affordability programs.[22] Different households have different energy needs that often correspond to factors beyond their control, such as insulation and heating technology, making high energy usage a necessity, and not a choice. A recent study in a cold climate (Chicago, IL) found that low-income groups living in homes with electric-based heating turned on their heating systems 6 degrees Fahrenheit ("°F") earlier (i.e., when outside temperatures were 6°F warmer) than high income households, which is most likely due to lack of insulation.[23] Another recent analysis supports this finding. The analysis investigated energy burdens, utility bills, and thermostat settings for a subset of households in a cold climate and found that low-income households set their thermostats to similar temperatures as their high-income counterparts, but that these households spent more money to reach these indoor temperatures due to less efficient housing (e.g., lacking insulation, less efficient appliances, leaky windows).[24] This demonstrates that low-income households are likely to spend more money to achieve the same indoor temperature as higher-income households even while maintaining the same indoor temperatures.[25]

Thus, absent a demonstrated future need to contain the costs of the program beyond what is accomplished by the restrictions built into the program design (e.g., eligibility requirements) and participation in energy efficiency programs that will reduce consumption, the AGO recommends that the Department not impose maximum consumption constraints or maximum discount amounts at this time.

If the Department were to design energy affordability programs with a maximum consumption limit, however, the AGO recommends that any limit be imposed on an annual basis, rather than on a monthly basis, and that the utility be required to provide reasonable notice to the customer that maximum consumption limits will go into effect as well as notice as the customer approaches the limit. A notice, for example, when the customer reaches 75 percent of the ceiling, 85 percent of the ceiling, and 90 percent of the ceiling would allow that customer to make changes, if possible, to reduce their consumption or to seek any available exemptions. Furthermore, use of a monthly

[22] If, in the future, the costs of the program necessitate reducing costs, there are several measures the Department can take, including establishing a cost cap for the program.

[23] Huang, L., Nock, D., Cong, S., & Qiu, Y. L, et al., *Inequalities Across Cooling and Heating in Households: Energy Equity Gaps* (November 2023) https://www.sciencedirect.com/science/article/pii/S0301421523003336.

[24] McKenna, C., Vaishnav, P., & Gronlund, C., *Heating with Justice: Barriers and Solutions to A Just Energy Transition in Cold Climates* (February 7, 2024) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4719571.

[25] By way of example, a 100-year-old house with no insulation and leaky windows will see significantly higher energy use than a 20-year-old house with updated energy efficient windows and updated insulation, even if both households are equally conscientious about their energy use.

ceiling may encourage energy limiting behavior[26] during extreme weather events (e.g., heat waves and cold snaps) or deviations from "expected" monthly temperatures, creating a situation where the affordability program is most likely to fail low-income customers right when they most need it and when they are most at risk.

If the Department does impose maximum consumption limits, the AGO recommends that the Department consider designing the limits to take into consideration factors such as heating technology, house size, household size, and insulation quality. These factors are highly impactful on household energy consumption, but largely outside of a customer's control. Limits should also recognize that extreme weather, such as heat waves and cold snaps, are becoming increasingly frequent.

6. Discuss whether energy affordability programs should reflect a seasonal fluctuation or an annual determination regarding energy usage limits.

Assuming that the Department establishes energy affordability programs with TDRs,[27] at this time, the AGO recommends that the Department consider directing automatic enrollment of customers in a budget billing plan, with an opt-out provision, whereby their bills would be levelized over 12 months and reconciled annually. The advantage of budget billing plans is that energy costs are somewhat predictable over the year. For people with limited discretionary income, consistent bill amounts may be easier to consistently pay.

If the Department is not inclined to require enrollment in budget billing, the AGO recommends that the Department explore the costs and benefits related to providing higher levels of discounts for the winter and summer, when energy costs are likely to be higher and the risk of people suffering from heat stroke (summer) or pipes freezing is greater (winter). With regard to seasonal fluctuation, in the winter, low-income households often must spend more money to reach the same level of indoor temperatures as high-income households.[28] Beyond comfort, household energy use provides access to heating and cooling which are important protections against adverse medical conditions and in some cases death.[29]

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[26] Energy limiting behavior early in the heating and cooling seasons is typically characterized by households that wait until it is warmer than 78°F in the summer or colder than 45°F in the winter to start using their cooling or heating systems. Energy limiting behavior throughout the heating and cooling seasons is characterized by households that use less than 0.1 kWh/°F throughout the cooling or heating season or less than 0.742 cubic feet/°F of natural gas.

[27] With a PIPP, bills would not reflect any seasonal fluctuation because they would be tied to a household's income and an affordable energy burden.

[28] Huang, L., Nock, D., Cong, S., & Qiu, Y. L., *Inequalities Across Cooling and Heating in Households: Energy Equity Gaps* (November 2023) https://www.sciencedirect.com/science/article/pii/S0301421523003336.

[29] Limiting cooling usage puts people at risk of heat stroke and heat illness and limiting heat in cold temperatures may cause increased incidence of illness. *See*, e.g., Iverson, S. A. et al., *Heat-Associated Mortality in a Hot Climate: Maricopa County, Arizona, 2006-2016*, at 105–159 (October 2020) https://journals.sagepub.com/doi/full/10.1177/0033354920938006 at 631-639; Barreca, A., et al., *Adapting to Climate Change: The Remarkable Decline in the US Temperature-Mortality Relationship over the Twentieth Century* (February 2016) https://www.journals.uchicago.edu/doi/10.1086/684582; Apprise, Inc. & National Energy Assistance Directors' Association (NEADA), *2005 National Energy Assistance Survey: Final Report* (September 2005) https://neada.org/wp-content/uploads/2013/03/survey2005.pdf.

As discussed in B.5, the AGO recommends that the Department does not establish energy usage limits.

7. Discuss the use of demographics (e.g., age, households with children, owners/renters) in designing energy affordability programs.

The AGO believes that the Department should fully evaluate demographic data in designing comprehensive energy affordability programs that capture and meet the needs of the diversity of household and customer socio-demographics and associated lived experiences. Income is not the sole factor that impacts energy insecurity. In the 2018 Residential Energy Consumption Survey ("RECS"), the U.S. Energy Information Administration ("EIA") found that households with occupants that identified as people of color or low-income experienced higher levels of energy insecurity.[30] Multiple studies have determined that energy insecurity disproportionately impacts low-income households, Black and Hispanic households, and households with children (especially those whose children are under 6 years old).[31] Renters too have been shown to be a high-risk population due to their lack of control over the housing structure and the often high amount of their income spent already spent on housing costs.

A wide suite of demographic factors and associated stressors can impact the threat and burden of energy poverty and energy insecurity on a household, and thus should be considered in the design of an energy affordability program, including, but not limited to: the presence of children; the presence of seniors and/or dependents; the presence of disabled persons; the presence of persons requiring medical equipment that requires electric service; marital status; employment status; migration background; race and ethnicity; primary language spoken within the household; and health vulnerabilities. A comprehensive and equitable energy affordability program must fully evaluate the impact of demographics and associated stressors on the experience of energy insecurity and energy poverty.

The AGO recommends that the Department fully evaluate how to alleviate any demographic and related impacts including potentially through the use of income disregards, which have been successfully integrated into many public benefit programs to enhance the comprehensiveness of

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[30] Jowers, K., et al., *Housing Precarity & The Covid-19 Pandemic: Impacts of Utility Disconnection and Eviction Moratoria on Infections and Deaths Across US Counties*, at 3 (last modified 2021) https://www.nber.org/papers/w28394.

[31] Ariel Drehobl & Lauren Ross, *Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities* (2016) https://trid.trb.org/view/1417907; Brown, M.A., et al., *Low-Income Energy Affordability: Conclusions From A Literature Review* (March 2020) https://www.osti.gov/biblio/1607178; Sanya Carley, David Konisky, & Trevor Memmott, *Household Energy Insecurity Survey, Winter 2021-2022* (January 2022) https://energyjustice.indiana.edu/doc/ejl-energy-insecurity-report-winter-2022.pdf; Memmott, T., et al., *Sociodemographic Disparities in Energy Insecurity Among Low-Income Households Before and During The COVID-19 Pandemic*, at 186-193 (January 2021) https://www.nature.com/articles/s41560-020-00763-9.

their coverage and benefits. The use and advantages of income disregards are discussed in greater detail in B.2.

Below, we discuss, by way of example, New York State's novel and comprehensive approach to defining energy justice communities, which was the product of a working group that included representation from numerous environmental justice community representatives (i.e., from New York City, upstate urban communities, and rural communities).[32]

New York Example

The State of New York drafted a comprehensive approach to identifying energy justice populations[33] using several data metrics to define the level of risk, burden, vulnerability, and sensitivity to these metrics at the Census tract level.[34] This is more complex than using a single metric, such as household income level, as it requires several different data sources and a scoring process to analyze all Census tracts within the state.

In New York, each Census tract was scored to give it a relative level of environmental burdens and climate risks, in addition to population characteristics and health vulnerabilities relative to other Census tracts in the state. In total, the State identified 35 percent of its Census tracts (or 1,721 of 4,918 total Census tracts) as energy justice Census tracts.

Below, we provide a table of the New York State indicators for assessing energy justice populations at the Census tract level.[35]

[32] New York State Climate Justice Working Group, *Draft Disadvantaged Communities Criteria and List Technical Documentation*, at 4 (March 9, 2024) https://climate.ny.gov/-/media/Project/Climate/Files/Disadvantaged-Communities-Criteria/Technical-Documentation-on-Disadvantaged-Community-Criteria.pdf.

[33] New York refers to these as "disadvantaged communities" or "DACs."

[34] *Id*., at 8.

[35] *Id.*, at 9

Table 3: New York Indicators of Energy Justice Populations at the Census Tract Level

Environmental Burdens and Climate Change Risk		
Potential Pollution Exposures	**Land use and facilities associated with historical discrimination or disinvestment**	**Potential Climate Change Risks**
Vehicle traffic density diesel truck and bus traffic	Proximity to remediation sites	Extreme heat projections
Particulate matter ($PM_{2.5}$)	Proximity to regulated management plan sites	Flooding in coastal and tidally influenced areas (projected)
Benzene concentration	Proximity to major oil storage facilities	Flooding in inland areas (projected)
Wastewater discharge	Proximity to power generation facilities	Low vegetative cover
-	Proximity to active landfills	Agricultural land
-	Proximity to municipal waste combustors	Driving time to hospitals or urgent/critical care
-	Proximity to scrap metal processors	-
-	Industrial/manufacturing/mining land use	-
-	Housing vacancy rate	-

Population Characteristics and Health Vulnerabilities			
Income	**Race and Ethnicity**	**Health Outcomes & Sensitivities**	**Housing Mobility & Communications**
Percent <80% Area Median Income	Percent Latino/a or Hispanic	Asthma emergency department visits	Percent renter-occupied homes
Percent <100% of Federal Poverty Line	Percent Black or African American	COPD emergency department visits	Housing cost burden (rental costs)
Percent without bachelor's degree	Percent Asian	Heart attack (MI) hospitalization	Energy poverty / cost Burden
Unemployment rate	Percent Native American or Indigenous	Premature deaths	Manufactured homes
Percent single-parent households	Limited English proficiency	Low birthweight	Homes built before 1960
-	Historical redlining score	Percent without health insurance	Percent without internet
-	-	Percent with disabilities	-
-	-	Percent adults age 65+	-

For demographics that the Department decides merit additional consideration in the design of an energy affordability program, one option would be to use income disregards. Income disregards are a flexible, adaptive tool used in several other public assistance programs to tailor benefits to

reflect the demographics and specific needs of the recipient. The AGO discusses income disregards in further detail in B.2.

The Department should also consider targeting outreach at low-income *payment-troubled* customers. While being payment-troubled should not be an eligibility criterion, one of the objectives of an energy affordability program (i.e., improved payment patterns) is best achieved by providing benefits to customers with a demonstrated history of non-payment, or other payment difficulties.

It is also important to use demographic information for program outreach – it can help inform how best to reach out to prospective program participants. Different groups of people experiencing energy insecurity often get their information from different sources and through different channels, often in different languages.[36] It is important to integrate this understanding into communication and recruitment planning in order to maximize the efficacy of the program.

8. Discuss whether energy affordability programs should be designed to provide particular relief to environmental justice ("EJ") populations. If so, how can programs be designed to provide such relief?

The AGO recommends that environmental justice populations and residents of other historically marginalized and/or overburdened and underserved communities should be identified and targeted for outreach for energy affordability programs to ensure they are able to equitably access such programs. Environmental justice advocates and/or organizations must be included in the stakeholder process to develop frameworks and metrics to identify and engage with these populations.[37]

Engagement with environmental justice populations is critical to ensuring they receive the benefits of utility investments in energy affordability programs. Specifically, outreach to environmental justice populations and outreach methodologies should be tailored to the intended recipients to reflect the fact that many of these communities receive and exchange information through different channels due to historic injustices, de-funding, and cultural norms. Local community-based organizations, environmental justice advocates, and groups serving environmental justice communities should be involved in the design and actual implementation of outreach. Some energy programs, including in Massachusetts, have also hired local community members to do this type of work, as it is important that all outreach be done in a culturally relevant, sensitive, and appropriate way, and come from trusted sources within the community. As discussed above, the AGO also encourages the Department to explore the potential use of income disregards as a mechanism to provide targeted relief to historically marginalized populations.

[36] *See, e.g.*, National Regulatory Research Institute *Where Customers Go for Help Paying Bills* (2003) (noting that "[n]ontraditional consumer education such as grass-roots campaigns might be more appropriate for hard-to-reach groups such as Hispanics," and that older customers tend to rely "much less on people close to them, compared to younger people and much more on the utility company.").

[37] The AGO notes that the Department recently adopted a Tiering and Outreach Policy in D.P.U. 21-50 (Appendix A).

The AGO discusses additional recommendations related to targeting education and outreach to low-income customers and energy justice populations in D.2.

9. Should the maximum cap as a percentage of household income paid under a PIPP be set below six percent for customers who experience a disproportionate burden of energy infrastructure in their neighborhood?

The AGO intends to review and consider stakeholder input filed in response to this question. In these Initial Comments, however, the AGO recommends that the Department consider how to mitigate disproportionate impacts from proposed energy infrastructure projects by: (1) establishing guidelines for and considering use of community benefit agreements,, while minimizing costs borne by ratepayers (2) soliciting evidence of cumulative impacts and ensuring cumulative impact evidence submitted by community residents and experts is considered and factored into decision-making, and (3) ensuring that utility outreach planning and implementation results in proposals that integrate reasonable mitigation measures.

10. With respect to a PIPP, discuss how the percentage cap on energy costs should be determined.

A 6 percent capped energy burden has been relied upon in other states, including in Washington,[38] New Hampshire,[39] New York,[40] New Jersey,[41] Illinois,[42] and Pennsylvania.[43] Most recently, the Connecticut Public Utilities Regulatory Authority ("PURA") held that a 6 percent burden for total home energy costs was the appropriate definition of affordability.[44]

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[38] Washington Administrative Code § 194-40-030. ("'Energy assistance need' means the amount of assistance necessary to achieve an energy burden equal to six percent for utility customers").

[39] *New Hampshire Public Utilities Commission*, DE 06-079, Order 24,664, at 3–4 (2006). ("[T]he current [Electric Assistance Program] was designed with the goal of making electricity affordable at four percent of gross household income for non-electric heat customers (and at six percent of income for households with electric heat).").

[40] *New York Public Service Commission*, Case 14-M-0565, Order Adopting Low Income Program Modifications and Directing Utility Filings, at 7–12 (2016). (Favoring a six percent energy burden level because it appears to be a widely accepted limit for utility payments, including in New Jersey and Ohio; and also reflected by EIA data).

[41] New Jersey Department of Community Affairs, *Universal Service Fund (USF)*, https://nj.gov/dca/dhcr/faq/index.shtml (requiring USF customers who use natural gas for heating and electricity to pay two percent for their natural gas service or two percent for their electricity service. If, however, the customer uses electricity for heating, the entire four percent is devoted to the electricity service. The discount provided to customers is based on the difference between their annual utility bill (after LIHEAP is applied) and the required percentage of household income.).

[42] Illinois Compiled Statues § 305 ILCS 20/18(c)(2). (Illinois administers a percentage of income plan (PIP) that charges customers a maximum of six percent of their income for gas and electric service.).

[43] Pennsylvania Public Utility Commission, M-2019-3012599, Final Policy Statement and Order, at 29–31 (2019).

[44] Connecticut Public Utilities Regulatory Authority, Docket No. 17-12-03RE11, Decision, at 2 (2022).

The 6 percent figure is based on the recognition that total shelter costs are generally deemed to be unaffordable if they exceed 30 percent of income; this assumes that utility costs tend to equal 20 percent of total shelter costs, and multiplying these two data points (20 percent times 30 percent) yields 6 percent.[45] The assumptions underlying the six percent are not necessarily consistent with what households experience, however. In particular, some areas of the Commonwealth have higher housing costs and higher costs of living compared with other areas, and some households may incur significant expenses related to childcare, elder care, and medical expenses.

The use of a 6 percent total home energy burden in Massachusetts would need to be considered alongside other factors applicable to an energy affordability program, including costs and bill impacts. The AGO looks forward to reviewing the positions of other stakeholders on this issue and to discussing the appropriate energy burden threshold in this proceeding.

11. With respect to a PIPP, discuss how the Department can limit the total energy burden of electric and gas bills for customers served by two different distribution companies, one for gas and one for electric.

The allocation of electric and gas bills between two different distribution companies, one for gas and one for electricity, should be done by establishing affordable burden levels based on average bills within municipalities. An energy burden of six percent, as discussed above, references the *total* home energy bill. Particularly in Massachusetts, which, as also discussed above, has a substantial amount of residential heating from delivered fuels (heating oil and propane), this total home energy burden could be allocated in different ways and at varying levels of granularity. While the AGO intends to review responses from other stakeholders, in these Initial Comments, the AGO recommends an even split; a burden of three percent to non-heating electricity, three percent to natural gas heating, and six percent for all electric homes, based on the average bills in Table 4. With additional data, a more granular analysis of the appropriate split for different service territories and different municipalities could be conducted.

[45] *New York Public Service Commission*, Case 14-M-0565, Order Adopting Low-Income Program Modifications and Directing Utility Filings, at 3 (2016). The New York Public Service Commission favored a six percent energy burden level because it appears to be a widely accepted limit for utility payments: "There is no universal measure of energy affordability; however, a widely accepted principle is that total shelter costs should not exceed 30% of income. For example, this percentage is often used by lenders to determine affordability of mortgage payments. It is further reasonable to expect that utility costs should not exceed 20% of shelter costs, leading to the conclusion that an affordable energy burden should be at or below 6% of household income (20% x 30% = 6%). A 6% energy burden is the target energy burden used for affordability programs in several states (e.g., New Jersey and Ohio), and thus appears to be reasonable. It also corresponds to what U.S. Energy Information Administration data reflects is the upper end of middle and upper income customer household energy burdens (generally in the range of 1 to 5%). The Commission therefore adopts a policy that an energy burden at or below 6% of household income shall be the target level for all low[-]income customers." *Id.*, at 7–8.

Table 4: Average Usage and Bills Across Electric and Gas Companies

COMMUNITY	ELECTRIC DISTRIBUTION CO.					GAS DISTRIBUTION CO.					
	Rates effective as of Feb. 1, 2024			Mon. Usage (kWh)	Total Monthly Bill	Rates effective as of Feb. 1, 2024			Mon. Usage (therms)	Total Monthly Bill	Total Gas & Elec. Svc.
Pittsfield	**WMECO**	Customer Charge ($/mon.)	$ 10.00	550	**$188.47**	**Berkshire Gas**	Customer Charge ($/mon.)	$ 11.42	100	**$173.76**	**$362.23**
		Delivery Rate ($/kWh)	$ 0.1664				Distribution Charge ($/th)	$ 0.5991			
		Basic Service Rate ($/kWh)	$ 0.1581				RDAF ($/th)	$ 0.0557			
		Total ($/kWh)	$ 0.3245				LDAF ($/th)	$ 0.3038			
							GAF ($/th)	$ 0.6648			
							Total ($/th)	$ 1.6234			
Waltham	**NSTAR Elec.**	Customer Charge ($/mon.)	$ 10.00	550	**$196.20**	**Boston Gas**	Customer Charge ($/mon.)	$ 12.00	100	**$236.05**	**$432.25**
		Delivery Rate ($/kWh)	$ 0.1664				Distribution Charge ($/th)	$ 0.8263			
		Basic Service Rate ($/kWh)	$ 0.1722				RDAF ($/th)	$ 0.1274			
		Total ($/kWh)	$ 0.3386				LDAF ($/th)	$ 0.4746			
							GAF ($/th)	$ 0.8122			
							Total ($/th)	$ 2.2405			
Fitchburg	**FG&E**	Customer Charge ($/mon.)	$ 7.00	550	**$237.43**	**FG&E**	Customer Charge ($/mon.)	$ 10.00	100	**$270.47**	**$507.90**
		Delivery Rate ($/kWh)	$ 0.2256				Distribution Charge ($/th)	$ 1.0951			
		Basic Service Rate ($/kWh)	$ 0.1934				RDAF ($/th)	$ 0.0826			
		Total ($/kWh)	$ 0.4190				LDAF ($/th)	$ 0.7994			
							GAF ($/th)	$ 0.6276			
							Total ($/th)	$ 2.6047			
Plymouth	**NSTAR Elec.**	Customer Charge ($/mon.)	$ 10.00	550	**$196.20**	**NSTAR Gas**	Customer Charge ($/mon.)	$ 10.00	100	**$200.22**	**$396.42**
		Delivery Rate ($/kWh)	$ 0.1664				Distribution Charge ($/th)	$ 0.6674			
		Basic Service Rate ($/kWh)	$ 0.1722				RDAF ($/th)	$ 0.0603			
		Total ($/kWh)	$ 0.3386				LDAF ($/th)	$ 0.5033			
							GAF ($/th)	$ 0.6712			
							Total ($/th)	$ 1.9022			

Source: Distribution Company websites and rate filings.

The application of a three percent electric/three percent gas split is shown in Table 5.

Table 5: Split of Electric and Gas Burdens

Fuels	Electric burdens	Natural gas burden
All electric (i.e., electric heating)	6%	---
Natural gas heating	3%	3%
Non-utility heating fuel	3%	---

At this time, the AGO recommends that any approved energy burden split between electric and gas be based on average bills. The analysis may also require separating out average bills for heating and non-heating customers. If average electric bills in a given location are significantly higher than natural gas bills for that specific location, then it may be appropriate to allocate higher burdens to electric bills.

12. Discuss how the revenue shortfall associated with energy affordability programs should be recovered from other customers. Should it be allocated only among residential customers

of the utility or across all customer classes? Should it be a statewide recovery factor (i.e., spread across all gas or electric utilities)? Are there other options?

Energy affordability programs can provide direct and indirect benefits across a utility's service territory. Thus, the revenue shortfall should be recovered from all customer classes. The AGO also recommends that, as part of this proceeding, the Department gather additional data around the potential costs and benefits of a statewide recovery factor. Additionally, the Department should consider (1) sharing revenue shortfalls associated with energy affordability programs (and AMPs) with shareholders rather than only with ratepayers; and (2) requesting additional funds to address affordability issues and revenue shortfalls from the Legislature or from federal funding opportunities. These considerations are further discussed in F.2.

Making energy affordable for eligible ratepayers can provide economic benefits and societal benefits within the Commonwealth and within individual companies' service territories. Money that is not spent on energy bills may provide economic benefits to businesses, including an electric distribution company ("EDC") or local distribution companies' ("LDCs") local commercial and industrial customers, as ratepayers with lower bills may spend that money in their community, supporting economic development and job creation.[46] In terms of societal benefits, researchers have documented a broad range of negative impacts associated with unaffordable bills. For example, researchers have shown that poor families reduce food expenditures in cold months;[47] that unaffordable home energy bills contribute to increased mobility of households as well as homelessness;[48] that people may forego medical or dental care;[49] and that people may not take prescription medication as prescribed due to energy bills.[50] Negative impacts of cold and hot indoor air temperatures, which may result from energy limiting behavior, have also been documented and include increased illness and doctor visits.[51] While energy affordability programs will not solve all of the impacts of poverty on a household, some of the impacts of unaffordable bills may be avoided or mitigated by ensuring that energy is affordable.

13. Discuss whether energy affordability programs should focus on heating versus non-heating customers.

Energy affordability programs should focus on all customers. Both electricity and gas bills may be unaffordable for ratepayers, and many heating systems require electricity to operate. Thus, if a

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[46] *See generally* Roger Colton, *The Economic Impacts of Home Energy Assistance: The Entergy States* (August 2003) https://cdn.entergy.com/userfiles/csr/docs/colton_assistance.pdf.

[47] Bhattacharya, J., et al., *Heat or Eat? Cold Weather Shocks and Nutrition in Poor American Families*, at 11, 17–18 (June 2002) https://www.nber.org/system/files/working_papers/w9004/w9004.pdf.

[48] Roger Colton, *A Road Oft Taken: Unaffordable Home Energy Bills, Forced Mobility, and Childhood Education in Missouri*, at 12-13 (June 1995) https://www.fsconline.com/downloads/Papers/1995%2001%20HD-START.pdf; National Energy Assistance Directors' Association (NEADA), *2005 National Energy Assistance Survey: Final Report*, at 59-62 (September 2005) https://neada.org/wp-content/uploads/2013/03/survey2005.pdf.

[49] NEADA, *2005 National Energy Assistance Survey: Final Report*, at 64 (September 2005) https://neada.org/wp-content/uploads/2013/03/survey2005.pdf.

[50] *Id*., at 65-68.

[51] *Id*., at 69-73.

customer loses access to their thermostat due to an electricity disconnection, they will not have the ability to heat their home regardless of the heating source.

14. With respect to tiered discount rates, discuss how the varying levels of discount should be determined. Should the discount rates and income levels be revised from time to time? If so, how often?

A primary objective of energy affordability programs is to make bills affordable. The amount billed should be an amount that each eligible ratepayer can consistently pay, thereby increasing the eligible ratepayer's ability to use energy while avoiding arrearages and disconnection. In order to promote sustainable bill payment, the Department should set TDRs at a level sufficient to generate an affordable energy burden (e.g., six percent) (this is also the objective of a PIPP). Ideally, any TDR would include several tiers (at least 5 and possibly more) so that the income range of each tier is narrow, and the applicable discount rate can be targeted to achieving an affordable energy burden for households within a narrow income range. These benefits should be evaluated alongside estimated costs related to the implementation of several tiers.

Assuming the Department adopts TDRs, the level of the discounts and the income tiers should be periodically revisited to ensure that the program results in bills that meet the energy burden target (i.e., six percent), as rates change over time due to approved rate increases and with changes to supply costs and reconciling mechanisms. While a PIPP is self-executing in establishing the relationship between utility rates and the incomes of program participants, a TDR is not. Still, with a PIPP, the household's income and size would need to be periodically updated or confirmed, which should likely occur on an annual basis. The frequency of revisions to the discount levels and income tiers should be balanced with the administrative costs and effort required to conduct the reassessment. For example, revisions should not be conducted based on temporary energy fluctuations.

Further, the Department should consider how to design income tiers to align with income requirements for federal and state means-tested benefits. As discussed below, categorical eligibility with automatic enrollment is one important way utilities can enroll eligible ratepayers in energy affordability programs.

15. Discuss the role of energy efficiency programs, consumption reduction, investment in residential loan programs for photovoltaic and battery installations, and targeted educational programs in addressing energy affordability.

Energy efficiency programs in the Commonwealth are increasingly focused on decarbonization via electrification. While funding for these initiatives, particularly for low- and moderate-income households, is essential, traditional energy efficiency programming such as weatherization, air sealing, and energy audits should continue to be a priority. These traditional measures reduce energy burdens for participants, reduce energy burdens statewide via downward pressure on usage and pricing, and reduce greenhouse gas ("GHG") emissions, even on an electric grid still largely

powered by fossil fuels, and thus represent cost-effective means of pursuing some of the Commonwealth's most important goals.

In addition, energy efficiency programs are a cost-effective way to reduce energy burden because a customer's utility bill decreases as the household's energy use decreases as a result of employing energy efficiency measures. In fact, directing energy efficiency measures and funds toward PIPP or TDR-eligible households would reduce costs of the energy affordability program.[52] Further, prioritizing users of energy affordability programs and ratepayers with high arrears would help to maximize the overall impact of energy efficiency investments as burden-reducing measures.[53]

To implement energy efficiency programs efficiently and cost-effectively, income requirements need to be consistent, and verification procedures (including the household income verification and categorical eligibility with automatic enrollment measures discussed in D.1) need to be uniform and aligned across energy efficiency programs and energy affordability programs. For example, customers on the existing low-income discount rate are currently automatically qualified for Mass Save's Income-Eligible offers, which reduces the barriers to participation in energy efficiency programming. The AGO recommends that the Department consider how to link verification procedures for the various energy-related affordability programs to enable eligible ratepayers to use one verification procedure to participate in multiple energy-related affordability programs. This may require data sharing and alignment of eligibility requirements and procedures across programs, service territories, and utilities.

Additional recommendations related to marketing, education, and outreach best practices are discussed in response to D.2.

C. Other Energy Affordability Measures

1. With respect to potential changes to the AMPs, discuss:

a. The level of debt forgiveness that should be offered, and how quickly customers should be required to pay off their debts;

The AGO notes that different utilities' AMPs are structured differently.[54] The AGO recommends that the Department consider requesting that the utilities propose a standard formula for the level of debt forgiveness provided annually to eligible ratepayers. The AGO would like to compare each utilities' annual AMP costs to their total annual revenues as well as to total residential class revenues before providing a recommendation on the annual level of debt forgiveness that should be offered. With regards to AMPs generally, the AGO requests that the Department direct the utilities to file in this proceeding their policies and practices with regards to their individual AMPs.

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[52] Applied Public Policy Research Institute (ASPIRE) & Fisher, Sheehan, & Colton, *Ratepayer Funded Low-Income Energy Programs: Performance and Possibilities*, at 132 (July 2007) https://www.appriseinc.org/reports/NLIEC%20Multi-Sponsor%20Study.pdf.

[53] Energy efficiency programs alone will not ensure that energy burdens are affordable, and should be viewed as complementary to an energy affordability program.

[54] D.P.U. 24-15, *Notice of Inquiry*, at 8–9 (Summarizing different elements of utilities' AMPs).

The AGO recommends programs be designed so that a ratepayer sees pre-program arrearage balances decreasing with each complete monthly payment, which is the current practice of utilities in the Commonwealth. This reduces a participant's debt at frequent intervals and serves to reward customers for consistent payment habits. Even if a participant misses a payment, with a continuing monthly opportunity to reduce pre-program arrearage debt there is a strong incentive for participants to make payments. The AGO also recommends that ratepayers are offered the opportunity for full debt forgiveness with 12 paid-in-full monthly payments (although this may be limited to ratepayers with certain arrearage amounts if there is an annual forgiveness cap).

b. Whether income eligibility thresholds should be the same as for energy affordability programs or, if not, how they should be set;

The AGO recommends that the income eligibility threshold for AMP participation be the same as the income eligibility threshold for energy affordability programs. AMPs are currently available only to households that are eligible for and participate in each utilities' low-income discount rate.

c. How the costs associated with AMPs should be recovered from other customers;

Consistent with the AGO's recommendation that revenue shortfalls from energy affordability programs be spread among all rate classes, the AGO similarly recommends that costs associated with AMPs be recovered from all customer classes, for the same reasons provided in B.12. The AGO also recommends that the Department consider requiring shareholders to share costs with all customer classes.

d. What happens if the customer misses a payment; and

Consistent with the response to C.1.a, utilities should provide pre-program arrearage forgiveness for each on-time and in-full monthly payment, regardless of in-program arrears or prior missed monthly payments. The utilities should also provide retroactive arrearage forgiveness for a prior missed month after the customer pays the full outstanding balance for that particular month.

e. Whether the program should be offered to customers who have been disconnected.

The objective of the AMP should be to assist eligible ratepayers (i.e., ratepayers who qualify for energy affordability programs) to reduce pre-existing arrearages in a way that generates some revenue to the utility and that minimizes lost revenue from bad debt. Whether those arrears are associated with a customer who has had service disconnected for nonpayment, or a customer whose service remains active, the ability of an AMP to achieve those objectives is the same.

2. With respect to current disconnection protections and potential changes, discuss:

a. The effectiveness of disconnection as a tool to reduce arrearages;

At this time, without data from the utilities on the relationship between disconnections and arrearage reduction, it is unclear whether disconnection is an effective tool to reduce arrearages.

In 2023, there were over 60,000 disconnections across the Commonwealth.[55] In some cases, customers may quickly pay their overdue bills, losing energy services for a short period of time; in other cases, customers may be unable to pay enough to restore their service, thus disconnections may last for days, weeks, or longer. If disconnections were effective in reducing the number of arrearages, over time the number of annual disconnections would decrease, at least among households with prior disconnections.[56] The AGO recommends that the Department request that the utilities provide data on the relationship between disconnections and arrearage reductions.

The impacts of disconnection may be significant for households. People rely on electricity for water, physical safety, food security, medical care and telecommunications, and for heat and cooling. Without essential energy services, households may suffer from instability or from unlivable or dangerous conditions (i.e., without energy, people may struggle to maintain employment, keep kids in school, and maintain a safe indoor air temperature).[57] Disconnections may cause or exacerbate health problems.[58] Disconnection may put people at risk of heat stroke and heat illness during high summer temperatures and hypothermia during extreme winter temperatures. Disconnections may also impact respiratory health due to the loss of proper ventilation and from fumes that may be caused by households heating with an oven or a diesel generator without proper ventilation. Further, indirect health risks arise from lack of access to hot water for proper hygiene.[59]

Disconnections may also lead to deaths that were otherwise preventable. Duke University researchers conducted a retrospective comparison of Covid death rates in places with and without bans on utility disconnections. They concluded that, if a national moratorium on utility disconnections had been in place from March through November 2021, overall Covid death rates would have been 14.8 percent lower.[60] Thus, using disconnections as a means to limit arrears is high-risk and can lead to serious health risks.

Additionally, several reports using data from other jurisdictions highlight that utility disconnections disproportionately harm people of color. A study using data from Illinois showed that in 2018–2019, "customers in Black and Hispanic zip codes" were about four times more likely to be disconnected for non-payment, two to three "times more likely to be on deferred payment

[55] Sanya Carley & David Konisky, *Utility Disconnections Dashboard* (2023) https://http-149-165-173-211-80.proxy-js2-iu.exosphere.app/.

[56] The AGO recognizes that it did not review data related to the relationship between disconnections and arrearages in preparing these Initial Comments and intends to do so to the extent that data is available.

[57] Bell, S.G., et al., *Powerless in the United States: How Utilities Drive Shutoffs and Energy Injustice* (January 19, 2023) https://www.biologicaldiversity.org/programs/energy-justice/pdfs/Powerless-in-the-US_Report.pdf.

[58] Bhavsar, N., et al., *Housing Precarity & the COVID-19 Pandemic: Impacts of Utility Disconnection and Eviction Moratoria on Infections and Deaths Across US Counties* (January 2021) https://www.nber.org/papers/w28394.

[59] Diana Hernández & Jennifer Laird, *Surviving a Shut-Off: U.S. Households at Greatest Risk of Utility Disconnections and How They Cope* (May 8, 2021) https://doi.org/10.1177/00027642211013401.

[60] Bhavsar, N., et al., *Housing Precarity & the COVID-19 Pandemic: Impacts of Utility Disconnection and Eviction Moratoria on Infections and Deaths Across US Counties* (January 2021) https://www.nber.org/papers/w28394.

plans, and 70% more likely to participate in utility-based low-income assistance programs[.]"[61] Researchers have also found that disconnections are more prevalent in minority communities.[62] Konisky et al. (2022)[63] as well as Memmott et al. (2021)[64] surveyed low-income households and found that Black, Hispanic, and medically compromised individuals were less likely to be able to pay monthly energy bills and more likely to receive disconnection notices to be disconnected. Advocates have highlighted that "[r]eliance on disconnections as a collections tool has the effect of punishing people for being poor, and ignores the longstanding racial and economic discrimination that have created the disparities that fuel poverty and the unaffordability of utility services."[65]

b. The minimum notification and arrearage requirements prior to disconnection and recommended changes;

Minimum Notification

The AGO recommends that the Department consider several modifications to its notice of termination requirements to provide customers with more information and more touch points prior to a utility disconnecting service. 220 C.M.R. 25.02(1) and (3) set out what utilities must do before disconnecting a customer. While the Department's regulations require utilities to notify customers at least two times (220 C.M.R. 25.02(3)(b)) that service will be terminated, there is no requirement that the notification be in person, by phone, or through a messaging platform. There is also no requirement that the customer actually receives the notice, and no requirement for the utility to inform the customer about available energy affordability programs, other types of bill assistance, debt forgiveness programs (e.g., AMPs), or energy efficiency programs.

The AGO recommends that the Department amend its notification procedures to require multiple customer touch points and that a touch point other than written notification be required. The AGO also recommends that the Department ensure that disconnection notices and communication regarding disconnection is easy to understand and is provided in multiple languages spoken in the Commonwealth. Finally, the AGO recommends that the Department require utilities to include, as part of these notices, information about how to enroll in energy affordability programs; other forms of bill assistance, including Low-Income Home Energy Assistance Program ("LIHEAP"); AMPs; and energy efficiency programs.

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[61] Steve Cicala, *The Incidence of Extreme Economic Stress: Evidence from Utility Disconnections* (August 2021) https://doi.org/10.1016/j.jpubeco.2021.104461.

[62] *Id*.

[63] Carley, S., et al., *The Persistence of Household Energy Insecurity During the COVID-19 Pandemic* (September 23, 2022) https://iopscience.iop.org/article/10.1088/1748-9326/ac90d7/meta.

[64] Carley, S., et al., *Sociodemographic Disparities in Energy Insecurity Among Low-Income Households Before and During the COVID-19 Pandemic* (January 18, 2021) https://www.nature.com/articles/s41560-020-00763-9.

[65] National Consumer Law Center, *Implementing a Roadmap to Utility Service as a Human Right* (April 2021) https://www.nclc.org/wp-content/uploads/2022/09/IB_Utility_Bill_of_Rights.pdf.

Nationally, 49 states require that utilities provide written notice of disconnection, with 21 also requiring notice by telephone as well.[66] In person communication or communication by phone or messaging platform may be a more effective way to provide *actual* notice of disconnection, compared with written notice. The AGO notes that not all ratepayers have frequent access to their mail at their residence (e.g., some households use a P.O. Box) and some ratepayers may not have consistent access to a computer, the internet, or to a utilities' website. For these reasons, disconnection within a short time frame after written notice (as the sole communication method) may disadvantage some ratepayers. In addition, mail can be delayed, which decreases the efficiency and reliability of mail notifications. Lastly, some of the language of disconnection notices may be difficult for customers to understand; thus, phone calls, messaging platforms, or in person check ins would allow customers to ask questions and be given information about how to prevent the disconnection and reduce the risk of disconnection in the future.

Arrearage Requirements

The AGO recommends that the Department consider establishing a minimum arrearage amount, whereby a utility would not be permitted to disconnect a ratepayer's service until a certain arrearage amount has been reached for a particular household. The AGO also recommends that the Department provide disconnection protections for people who make partial payments on their past due bills.

c. Current policy and level regarding disconnection/reconnection fees, and whether utilities should be allowed to charge disconnection/reconnection fees to customers eligible for energy affordability programs;

As part of this proceeding, the AGO recommends that the Department request that the utilities submit information on what utilities charge ratepayers in disconnection and reconnection fees as well as what the actual cost is to the Company (for example, in terms of employee time, etc.).[67] The AGO also recommends that the Department request that the utilities submit information on the percent of overall revenue that reconnection and disconnection fees represent. The AGO does note that disconnection and reconnection fees add to the energy affordability challenge and may place significant burdens on households that are already struggling to pay their energy bills; additional fees will make it even more difficult for a ratepayer to pay off energy debts.[68]

d. Whether the Department should consider disconnection protections for people with disabilities.

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[66] Carley, S., *Electric Utility Disconnections: Legal Protections & Policy Recommendations* (June 2023) https://utilitydisconnections.org/doc/electric-utility-disconnections-legal-protections-and-policy-recommendations.pdf.

[67] The AGO notes that with AMI, disconnection and reconnection fees are likely to decrease in the future.

[68] Study from the Energy and Policy Institute and Center for Biological Diversity. Bell, G., et al., *Powerless in the United States: How Utilities Drive Shutoffs and Energy Injustice - An ongoing project tracking utility service disconnections and corporate profiteering* (January 19, 2023) https://www.biologicaldiversity.org/programs/energy-justice/pdfs/Powerless-in-the-US_Report.pdf; Lo, Jason, *Food or Power: Energy Bill Late Fees Force Tough Choices* (March 14, 2022) https://apnews.com/article/energy-late-fees-louisiana-kentucky-da59030e9abc8b5271b4a13eee15f63d.

The AGO recommends that the Department should further investigate whether disconnection protections should be expanded to include people with disabilities, beyond the current protections for people with a serious illness. *See* G.L. c. 164, § 124A.

e. How the costs associated with disconnection protections are currently recovered and how should they be recovered from other customers; and

The AGO recommends that costs associated with disconnection protections be collected from all customer classes, similar to the AGO's recommendations regarding recovery associated with revenue shortfalls from energy affordability programs and AMPs. The AGO also recommends that the Department consider sharing these costs between all customer classes and shareholders.

f. Whether the Department should consider shutoff moratoriums for nonpayment during the summer and, if so, the appropriate time period.

The AGO recommends that the Department establish shutoff moratoriums for nonpayment during the summer given the health risks associated with heat waves and high indoor air temperatures. Most specifically, the AGO recommends shut off moratoriums are designed to be date-based and temperature based (e.g., when the average outdoor temperature may lead to unsafe indoor temperatures). Scholars from the Energy Justice Lab have stated that a "combination of temperature and date-based disconnection policies provide a more robust set of protections than either alone, and which is increasingly necessary with a changing climate and more erratic weather."[69]

Massachusetts and other New England states do not actively track heat-related deaths, which can hide the problem facing residents in the summer. Other regions have found that lack of access to home air conditioning is an important risk factor for deaths resulting from heat-stress. For example, among the 370 residents who died from heat stress as reported in a 2022 New York report, the place of death was most often an un-air-conditioned home.[70] In Massachusetts, there have been high levels of emergency room visits resulting from heat-related illnesses; since 2014, the number of annual emergency room visits has been well over 500 (heat-related ER visits in 2018 were 1,065, in 2019 were 747, and in 2020 were 565).[71]

D. Program Administration

1. Discuss the challenges and best practices for income verification for energy affordability programs, including the use of automatic enrollment or self-certification. In particular, discuss how to verify incomes above 200 percent of the FPL or 60 percent of the SMI.

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[69] Sanya Carley, David Konisky, & Emily Nash, *Electric Utility Disconnections: Legal Protections & Policy Recommendations* (June 2023) https://utilitydisconnections.org/doc/electric-utility-disconnections-legal-protections-and-policy-recommendations.pdf.

[70] City of New York, *2022 NYC Heat-Related Mortality Report* (2022) https://a816-dohbesp.nyc.gov/IndicatorPublic/key-topics/climatehealth/2022-heat-report/.

[71] Miriam Wasser, *Most New England States Don't Track 'Heat-Related' Deaths. Experts Say That's a Problem* (August 31, 2023) https://www.wbur.org/news/2023/08/31/heat-waves-mortality-excess-deaths-climate-change.

In order to support increased participation by eligible ratepayers, the AGO recommends that the utilities continue to use a variety of methods to verify eligibility for energy affordability programs and to working with the Department, AGO, and federal and state agencies administering other means-tested benefits to find additional ways to make the process easier for eligible ratepayers to enroll. At this time, the AGO recommends the continued use of both household level income verification and categorial eligibility methods (with automatic enrollment) to verify eligibility. The AGO also recommends that, through this proceeding, the Department work with stakeholders (including the AGO) to gather additional information about customer self-certification. Below, the AGO discusses the challenges and benefits of these different methods. The AGO also notes that challenges related to verifying eligibility will vary depending on the structure of an energy affordability program. A PIPP requires more precise income data. Given that bills are capped at a percentage of income, it makes a difference whether a customer has an income of $15,000 or $18,000, rather than a range.

Household Level Income Verification

This method requires ratepayers to provide documentation of household income and size. One benefit of this method is that the utility would have accurate data to support a PIPP and/or the appropriate tier of a TDR, thereby offering the ratepayer the maximum discount available under a given program. One main challenge is that this method requires ratepayers to provide income data. Some documentation, such as W-2s and tax returns include social security numbers, which the ratepayer may not want to share with their utility. The AGO recommends that the utilities allow ratepayers to demonstrate eligibility in a variety of ways, including through submitting: state or federal tax returns (for adults over 18 years old); W-2s, recent pay stubs, pay envelops, or a written statement signed by an employer or a client (for working adults); or business records showing total income and total business expenses (for self-employed adults). This documentation would apply for household members over 18 years old.

Categorical Eligibility with Automatic Enrollment

This method enables a utility to verify eligibility based on a ratepayer qualifying for other means-tested benefits. Categorical eligibility means that a household is considered to have "automatically passed an income eligibility test because a household member has already been determined to meet income eligibility requirements" for another means-tested benefit.[72] With data sharing agreements between the utility and state and federal agencies, ratepayers can be automatically enrolled in programs. The utilities currently work with the Department of Transitional Assistance to enroll eligible households. Categorical eligibility could also be applied to an apartment building or housing development with income requirements that align with the relevant utilities' energy affordability programs. This approach would permit ratepayers to demonstrate that they qualify for another means-tested benefit, even if automatic enrollment was not available or if there is no data sharing agreement in place for the means-tested benefit that ratepayer qualifies for.

One significant benefit of this method is that ratepayers do not have to provide additional documentation to participate, and with automatic enrollment, ratepayers are not required to have

[72] U.S. Department of Health and Human Services, *Low Income Household Water Assistance Program Information Memorandum* (September 28, 2021) https://www.acf.hhs.gov/ocs/policy-guidance/lihwap-im-2021-04-categorical-eligibility-fy2021.

contact with the utility to enroll. Thus, customers will experience a frictionless eligibility verification with this method. Ratepayers should not have to provide income verification if their qualifying income has already been verified by a state or federal agency. Further, continually submitting verification is likely to cause unnecessary burdens and may result in lower levels of participation, imposing barriers for eligible ratepayers who are unable to spend the time, energy, and/or resources to go through the verification process.

One disadvantage is that determining eligibility based on participation in another program does not provide the utility with specific income or household size data; this could lead to a ratepayer receiving less of a discount than they are eligible for under a PIPP or a TDR. Another barrier is that this method requires data sharing protocols between federal and state agencies and the utilities.

To facilitate enrollment for eligible ratepayers, the AGO recommends that the utilities work with state and federal agencies on additional data sharing agreements, whereby a utility would have the data necessary to slot ratepayers into appropriate discount rates (based on verified income and household size). The data sharing agreements should be structured so that the state or federal agencies do not provide any sensitive information, such as social security numbers or immigration status, to the utility.[73]

The AGO additionally recommends that the Department work with the utilities, the AGO, and other stakeholders to identify the appropriate means-tested benefits that the utilities should use under a categorical eligibility method. The AGO initially recommends that the list should be broad, and should include means-tested benefits for which eligibility is not tied to immigration or citizenship status. By way of example, a 2022 study on categorical eligibility for California investor-owned utilities ("IOUs")[74] recommended that the IOUs consider or explore using LifeLine;[75] the National School Lunch Program;[76] California Refugee Programs Bureau services (the Massachusetts agency is the Office of Refugees and Immigrants); and the U.S. Department of Housing and Urban Development's Family Unification,[77] and Foster Youth to Independence programs.[78]

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[73] A 2022 study by Evergreen Economics found that those concerns primarily stemmed from when utilities maintain additional data about individuals and/or households that are not core to their energy and account transactional needs. Evergreen Economics, *2022 Categorical Eligibility Study*, at 5 (June 26, 2023) https://www.calmac.org/%5C%5C//publications/Categorical_Eligibility_Report_-_Final.pdf.

[74] Evergreen Economics, *2022 Categorical Eligibility Study*, at 3-4 (June 26, 2023) https://www.calmac.org/%5C%5C//publications/Categorical_Eligibility_Report_-_Final.pdf.

[75] California Public Utilities Commission, *California LifeLine Eligibility.* https://www.cpuc.ca.gov/consumer-support/financial-assistance-savings-and-discounts/lifeline/california-lifeline-eligibility#qualify.

[76] USDA Food and Nutrition Service, *Child Nutrition Programs: Income Eligibility Guidelines* (February 20, 2024) https://www.fns.usda.gov/cn/fr-022024.

[77] Office of Housing Voucher Programs, *Fact Sheet: Housing Choice Voucher Program, Family Unification Program.* (December 2023)
https://www.hud.gov/sites/dfiles/PIH/documents/FUP%20Fact%20SheetRevised%20December%202023.pdf.

[78] Directors of HUD Regional and Field Offices of Public Housing, *Notice PIH 2023-04,* at 7 (March 15, 2023) https://www.hud.gov/sites/dfiles/OCHCO/documents/2023-04pihn.pdf.

Customer Self-Certification
With this method, households "attest" to their income and household size and communicate that information to their utility. For a PIPP, the household would need to self-certify a specific income, while for a TDR, the household would need to self-certify the income tier for which they qualify. The accuracy of the self-certifications could be tested through audits of a certain percentage of program participants to determine the extent to which, if at all, the self-certification process is resulting in discount rates higher than what a household would otherwise qualify for. A self-certification method can be designed to require households to recertify or re-attest at regular intervals, such as yearly or every other year. One model from Pennsylvania requires a household that claims $0 income to recertify income every six months.

2. Discuss the best practices to increase enrollment across energy affordability programs, such as the expanded use of utility advanced metering infrastructure data, marketing and outreach, and increased eligibility requirements.

The AGO makes several recommendations related to marketing and outreach as well as related to use of utility advanced metering infrastructure data.

Marketing and Outreach
The AGO recommends that the Department consider prioritizing marketing and outreach efforts to reach populations that are the most under-resourced, and those that have been historically marginalized, overburdened, and/or underserved. The AGO also recommends that the Department use marketing, education, and outreach ("MEO") best practices to reach customers most effectively.

Some ways to achieve effective communication with customers includes the following:

- **Incorporate openness and transparency.** Reliable service, combined with open and honest communications, forms the bedrock of customer trust. Customers should be informed of changes to rates and/or programs that will impact them. This should be done in a straightforward and authentic way, especially for customers who may harbor skepticism toward their utility provider (which often exists amongst low-income customers; refugees and migrants; and other marginalized customer groups).
- **Build customer trust by leaning into customer values and using community-specific, locally contextualized messaging.** This requires understanding customers' motivations, attitudes, needs, barriers, and complexities. As part of this inquiry, the AGO is conducting primary research to help elevate customer voices. We will provide the findings from this research in future stages of this proceeding.
- **Avoid overly complex, "legalese" style language.** Language should be simple and straightforward, and easy to locate and to understand. Many customer communications fail to reach their intended recipient because they are buried within technical documentation, and thus not easily observed at a glance, or because they use "legalese" and jargon that make the message difficult to understand. This heightens customer distrust because many may believe these communications are being made intentionally difficult to

locate or understand. Customer trust, understanding, and overall utility satisfaction can be improved by making all communications (i.e., websites; email; social media; marketing material) easy to understand, and ensuring they are accessible.

- **Ensure that all MEO efforts are culturally and linguistically appropriate.** One effective way of accomplishing this is by working alongside local community-based and environmental justice organizations, which are often trusted and adept messengers in their communities. Implementation teams for programs should be required to include community-based or environmental justice organizations (as prime or sub-contractors). As much as possible, all MEO should be conducted in the primary language spoken at home.[79] In Massachusetts in 2022, 24.4 percent of all state residents reported speaking a language other than English as their primary language used in the home, including:

    - 623,189 households (9.39 percent of the population) reported speaking Spanish.
    - 205,246 households (3.09 percent of the population) reported speaking Portuguese.
    - 142,362 households (2.15 percent of the population) reported speaking Mandarin.[80]

A 2023 report from ACEEE provides some additional best practices for designing energy efficiency programs to reach under-served customers, including low-income customers, renters, and rural customers.[81] Many of the recommendations are also relevant to efforts to increase enrollment in energy affordability programs as well. The Figure below highlights the recommended core strategies for reaching under-served communities, along with the feasibility and impact of those strategies on customers.

[79] American Council for an Energy Efficient Economy, *Strengthening Equity in Energy Efficiency Programs: Case Studies of Two Utilities* (October 2023) https://www.aceee.org/sites/default/files/pdfs/strengthening_equity_in_energy_efficiency_programs_-_case_studies_of_two_utilities_-_encrypt.pdf (highlighting the importance of ensuring language accessibility within program offerings, and documenting a case study from Mass Save in which local organizations and customers who primarily speak languages other than English are providing input and identifying barriers and solutions to inform the development of a formal Language Access Plan, which already includes workforce development goals aimed at hiring and training multi-lingual employees).

[80] U.S. Census Bureau, *American Community Survey, 5-year Estimate* (2022) https://datausa.io/profile/geo/massachusetts/demographics/languages.

[81] American Council for an Energy Efficient Economy, *Adapting Energy Efficiency Programs to Reach Underserved Residents* (November 2023) https://www.aceee.org/sites/default/files/pdfs/adapting_energy_efficiency_programs_to_reach_underserved_residents_-_encrypt.pdf.

Figure 2

Strategy	Feasibility	Impact
Pursue equitable community engagement.	Medium	Very high
Establish a one-stop shop.	Difficult	Very high
Create and disclose equity metrics.	Medium	High
Develop a diverse and inclusive energy efficiency workforce.	Difficult	High
Tailor marketing based on customers' preferences and behaviors.	Easy	Moderate

The report notes a few strategies for building trust and overcoming communication challenges with energy burdened customers and communities:

- Develop community-based stakeholder groups with representation from diverse stakeholders who will be impacted through rate design and affordability offerings.
- Ensure community leaders have leadership roles in program design, delivery, and outcomes.
- Share outcomes with community members and hold the program administrators accountable to those they serve.
- Hire community members to serve on decision-making bodies.
- Provide compensation to community members participating in decision- and policy-making processes. This is important because many low-income individuals are more likely to find meeting attendance and process participation challenging. As examples, the report notes that Philadelphia Gas Works provides gift cards to those who participate on its customer advisory panel and Portland General Electric compensates members of its Community Benefits and Impacts Advisory Group (which advises the company on issues such as inclusive contracting and distribution infrastructure).[82]

The report also advises that providing a single point of contact (a "one-stop shop") for a variety of resources makes accessing those resources easier for customers by removing friction and barriers related to time-consuming and potentially confusing application and enrollment processes, and the need to repeatedly demonstrate income eligibility for participation across multiple programs. For example, providing a one-stop shop could prove helpful for endeavors such as tying participation in the low-income energy affordability program to participation in low-income energy efficiency and weatherization programs, and vice-versa. A one-stop shop should:

- Be accessible to the community members it serves (i.e., neighborhood location; online).

[82] American Council for an Energy Efficient Economy, *Strengthening Equity in Energy Efficiency Programs: Case Studies of Two Utilities* (October 2023) https://www.aceee.org/sites/default/files/pdfs/strengthening_equity_in_energy_efficiency_programs_-_case_studies_of_two_utilities_-_encrypt.pdf.

- Be accessible in terms of language and disability requirements.
- Be easy to use.

The report also notes the importance of creating and sharing equity metrics as a way to hold program administrators accountable to communities and ratepayers. Equity metrics should be specific, measurable, attributable, relevant, and time-bound (often referred to as "SMART"). Further, a metrics dashboard, or some other public-facing display of metrics, is important for community buy-in and engagement. ACEEE specifically recommends using impact metrics instead of output metrics. For example, an impact metric that defines the number of low-income customers who receive a specific affordability benefit (e.g., a discounted rate, solution, or other offering) within a specific time frame is preferable to an output metric that assesses how many customers received an email about an affordability benefit. Program administrators can build further trust with communities by working alongside community members and/or community-based stakeholder groups to define the most relevant metrics for the communities they serve. While not traditionally considered an MEO component, it is worth noting that facilitating investments in the local work force can build trust in the community in addition to providing economic benefits, and fits neatly into a program for measuring and sharing impact-based metrics with the community.

Overall, implementing successful MEO practices requires tailoring broad-scale messaging to a community's needs, motivations, and barriers, and individual- or household-scale messaging to where each customer is in their energy journey. For example, a customer just learning about an affordability program may respond to messaging differently than a customer who has already participated in a low-income discount rate and is interested in other affordability solutions.

Advanced Metering Infrastructure

After advanced metering infrastructure is deployed throughout the Commonwealth, the utilities should use it to identify ratepayers that may benefit from energy affordability programs and to inform the design of affordability programs. For example, advanced metering infrastructure can help identify disparities in energy use between high- and low-income groups, households exhibiting energy limiting behavior (including households at risk of having pipes freeze in the winter and unsafe indoor air temperatures), and households with inefficient heating and cooling infrastructure. This type of data, combined with data on income (by household or by census block group if the household level is unavailable), customer surveys, and additional demographic data should be used to inform outreach and individualized marketing strategies. The AGO notes that there are privacy implications related to advanced metering infrastructure and data collection and appropriate data privacy safeguards must be in place. The AGO further discusses use of advanced metering infrastructure and data collection in F.2.

E. Small Commercial and Industrial Energy Affordability Programs

1. Is there a reasonable method to address energy burden for small commercial and industrial ("C&I") customers including, in particular, those that are non-profit entities? If so, what is that method?

The AGO supports the Department's consideration of methods to address energy burden because some small businesses may struggle to pay energy bills and experience hardships similar, but not

identical to, residential customers. As part of its review, the Department and stakeholders should evaluate estimated program costs as well as bill impacts. Additionally, data from the Small C&I Arrearage Forgiveness Program instituted during the pandemic, and approved in D.P.U. 20-58, should be further examined to help inform any discussion here, including a review of (1) the costs associated with the program; (2) how many customers took advantage of the program, and the size of those customers and any other relevant, known information about the makeup of those customers; and (3) if the program was ultimately effective at reducing or eliminating arrears for these customers. The AGO looks forward to further discussion and review of relevant data if the Department pursues an energy affordability program for small commercial and industrial customers.

2. How should the Department define small C&I customers for the purpose of an energy affordability program?

The AGO recommends that the Department define small C&I customers consistent with how customers qualify for small C&I rates for each utility, which is typically based on usage.

F. General Questions

1. For individuals in particular, discuss what the energy burden looks like for you and what decisions you make about how to pay your energy bills and alter your energy consumption in an attempt to lower your bills.

The AGO looks forward to reviewing input from stakeholders.

2. Provide any additional comments or suggestions regarding the methods and measures that the Department could employ to address energy affordability.

Design of Energy Affordability Programs Should Include Primary Research

Designing and implementing energy affordability programs requires a deep and nuanced understanding of how customers experience energy burden and how they perceive their utilities. To understand these experiences, primary research and direct consulting with customers in program design is critical. The customers who are most vulnerable often do not have a clear voice in utility program design. Deep customer insights into Massachusetts ratepayers who are experiencing energy burden should inform policy, strategy, and program design to ensure those programs achieve their intended results – namely, ensuring that energy affordability programs actually meet the needs of the Commonwealth's most vulnerable customers. The AGO is currently conducting research with community-based organizations and plans to conduct research with Massachusetts ratepayers. The AGO intends to provide these insights in a subsequent comment opportunity in this investigation.

Affordability Programs May Need to be Funded by Sources Other than Solely by Ratepayers

The Legislature should appropriate funds for utility affordability programs, including energy affordability programs and AMPs. The Department, the Executive Office of Energy and Environmental Affairs, and the Administration should also explore opportunities to leverage state funding by pursuing federal funding support for such programs through new or existing federal

programs. While the AGO is supportive of establishing rates that are affordable for eligible ratepayers, the costs for providing an increasingly large number of programs are wholly borne by ratepayers. Ratepayers are simultaneously asked to shoulder the cost increases associated with, for example, periodic base distribution rate cases, grid modernization investments, clean energy procurements (offshore wind and hydro), utility-owned solar projects, energy efficiency programs, and EV rebates and infrastructure costs, to name a few. Thus, Massachusetts customers could see utility bills increase significantly in the coming years in the absence of any meaningful effort to mitigate or offset these costs. The Commonwealth is committed to achieving the GHG emission reductions mandated by statute. Funding this transition through sources other than utility rates, while ensuring that bills are affordable for eligible ratepayers, should be a focus of policymakers. Accordingly, the AGO encourages the Department, policymakers, and stakeholders to expand the availability of non-ratepayer funded options in the near-term.

Utilities and Utility Executives Should Be Incentivized to Pursue Affordability Initiatives and to Reduce Overall Costs

The AGO recommends that the Department consider, as part of this proceeding, what measures can be pursued to meaningfully incentivize utility executives to improve affordability for ratepayers.

Data Collection and Reporting Related to Income and Energy Burden

The AGO appreciates that the Department has requested that the EDCs and LDCs file data on energy burden[83] and recommends that the Department request additional data to help inform policies, programs, and priorities related to affordability. A substantial number of energy-poor households may be overlooked by relying on averages, by not considering fuel type, and by relying solely on a traditional energy burden ratio. The AGO's recommendations below seek to address these issues.

Averages

The data already filed in response to D.P.U. 22-22 and to be filed by the utilities in this proceeding depends on the use of averages (e.g., average bills by census block group and by percentage of SMI and FPL, income by county, etc.).[84] While this approach is necessary and appropriate if more granular data is unavailable, the use of averages will limit the usefulness of this data to identify households with high energy burdens. The Department should work with the utilities, the AGO, and other stakeholders to determine the extent to which more granular data can be made available (e.g., actual bills, actual income) to support a more in-depth understanding of energy burden. More granular detail will assist the Department in designing programs that serve the needs of ratepayers.

[83] *See* Vote and Order Opening Inquiry, at 16-18; D.P.U. 22-22, at 472-73.

[84] *See* Vote and Order Opening Inquiry, at 16-18; D.P.U. 22-22, at 472-73.

Fuel Type

The AGO recommends that the Department explore how the use of multiple fuels for home heating and the associated costs of different fuel types may be addressed with regards to affordability programs. According to the EIA, in 2022, about 52 percent of Massachusetts households used natural gas for home heating, 27 percent relied on petroleum products, and eighteen percent used electricity.[85] The remainder used wood or other fuels. Because the data to be filed by the utilities would not account for over one quarter of the households using alternatives to electric or gas heating, the AGO recommends that the Department consider how to identify these households and how affordability programs can be designed to address affordability challenges for these households. As a preliminary recommendation, the AGO recommends that the Department direct each utility to file data on the number of households served by fuel type per census track within its service territory. With this data, analysis could be conducted to identify the distribution of heating technology by census track (including estimated rates of electric-resistance heating and delivered fuels), which could inform how an energy burden under a PIPP could be allocated, or an appropriate discount rate by fuel type for a TDR.

Traditional Energy Burden Ratio

An energy burden ratio will not account for the amount of energy a household may forego due to financial constraints (referred to as energy limiting behavior).[86] One study of households in northern Illinois, including Chicago, found that without considering energy limiting behavior, an income-based energy burden measure failed to identify 20 percent of low-to-middle-income households in the cooling sector and 24 percent of low-to-middle-income households in the heating sector experiencing energy poverty. The AGO therefore recommends that, after advanced metering infrastructure is deployed in the Commonwealth, the Department direct the utilities to collect and identify data that can help identify these households which may be at risk of their pipes freezing in the winter and unsafe indoor air temperatures and which may have inefficient heating and cooling infrastructure. If these households are identified, targeted outreach can be conducted to determine whether the household is eligible for energy affordability programs, energy efficiency programs, or other assistance. The AGO recommends that the Department work with the utilities, the AGO, and other stakeholders to identify energy limiting behavior, which can then inform marketing and outreach activities to reach more households who may qualify for energy affordability programs. The AGO notes that there are privacy implications related to advanced metering infrastructure and data collection, and appropriate data privacy safeguards must be in place.

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[85] EIA, *U.S. State, Massachusetts, State Profile and Energy Estimates*, https://www.eia.gov/state/?sid=MA#tabs-5.

[86] Huang, L. et al., *Inequalities Across Cooling and Heating in Households: Energy Equity Gaps* (November 2023); Dorothée Charlier & Berangère Legendre, *Fuel Poverty: A Composite Index Approach* (September 2016) http://faere.fr/pub/WorkingPapers/Charlier_Legendre_FAERE_WP2016.09.pdf; Kelly, et al., 2020, *Enabling A Just Transition: A Composite Indicator for Assessing Home-Heating Energy-Poverty Risk and The Impact of Environmental Policy Measures* (November 2020).
https://www.sciencedirect.com/science/article/pii/S0301421520305127.

Energy limiting behavior can be identified as follows:

- Early in the heating and cooling seasons:[87] Utilities should obtain and report on daily energy usage data and daily average outdoor temperature data for each household and calculate a five-parameter linear regression[88] to approximate the outdoor temperature at which the cooling and heating systems turn on. These turn-on points can then be compared to benchmarks (e.g., households would be considered "at risk" if they do not turn on air conditioners when the outside temperature passes a certain threshold that may result in unsafe indoor temperatures. If a household waits until the daily average temperature is below 40°F to turn on their heating systems, the utility should inform this household of energy affordability programs, as this household may be at risk of their pipes freezing.[89] If daily data is not available due to metering technology, then it is recommended that the utility use monthly energy consumption and temperature data to approximate this energy behavior. However, it is noted that daily data provides a higher quality estimate.
- Throughout the heating and cooling seasons: Each year the utility should obtain daily energy usage data and average outdoor temperature data and run a five-point regression to approximate how the cooling and heating systems are used throughout the summer and winter seasons. If the cooling or heating slope falls below 0.1 kWh/°F then a household is most likely experiencing a form of energy insecurity.[90] If daily data is not available due to metering technology, then it is recommended that the utility use monthly energy consumption and temperature data to approximate this energy behavior. However, it is noted that daily data provides a higher quality estimate.

[87] Early in the heating and the cooling season is defined as the first outdoor temperature at which the household's heating or cooling system would turn on.

[88] The five-parameter linear regression is a method used to approximate how a household uses their energy system throughout the year. It assumes that increases in temperature have a linear effect on energy consumption. The linear rate of increase in air conditioning energy use with respect to ambient temperature can be described as a "cooling energy slope," while the linear rate of increase in heating energy use with respect to ambient outdoor temperature can be described as a "heating energy slope." These slopes vary between houses. Perez, K. X., et al., *Development and Analysis of Residential Change-Point Models from Smart Meter Data*, at 139, 351-359 (2017) https://innovationcenter.msu.edu/wp-content/uploads/2021/06/Development-and-analysis-of-residential-change-point-models-from-smart-meter-data.pdf.

[89] Huang, L., et al., *Inequalities Across Cooling and Heating in Households: Energy Equity Gaps* (November 2023) https://www.sciencedirect.com/science/article/pii/S0301421523003336.

[90] Kwon, M., et al., *Forgone Summertime Comfort as A Function of Avoided Electricity Use* (December 2023) https://www.sciencedirect.com/science/article/pii/S0301421523003981.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES

Notice of Inquiry by the Department of Public Utilities on its own Motion into Energy Burden with a Focus on Energy Affordability for Residential Ratepayers	**D.P.U. 24-15**

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing documents upon all parties of record in this proceeding in accordance with the requirements of 220 C.M.R. 1.05(1) (Department's Rules of Practice and Procedure). Dated at Boston this 1st day of March, 2024.

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