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Equitable Electrification

Could Electrification of Multifamily Housing in New York City Aggravate Energy Insecurity?

Guarini Center
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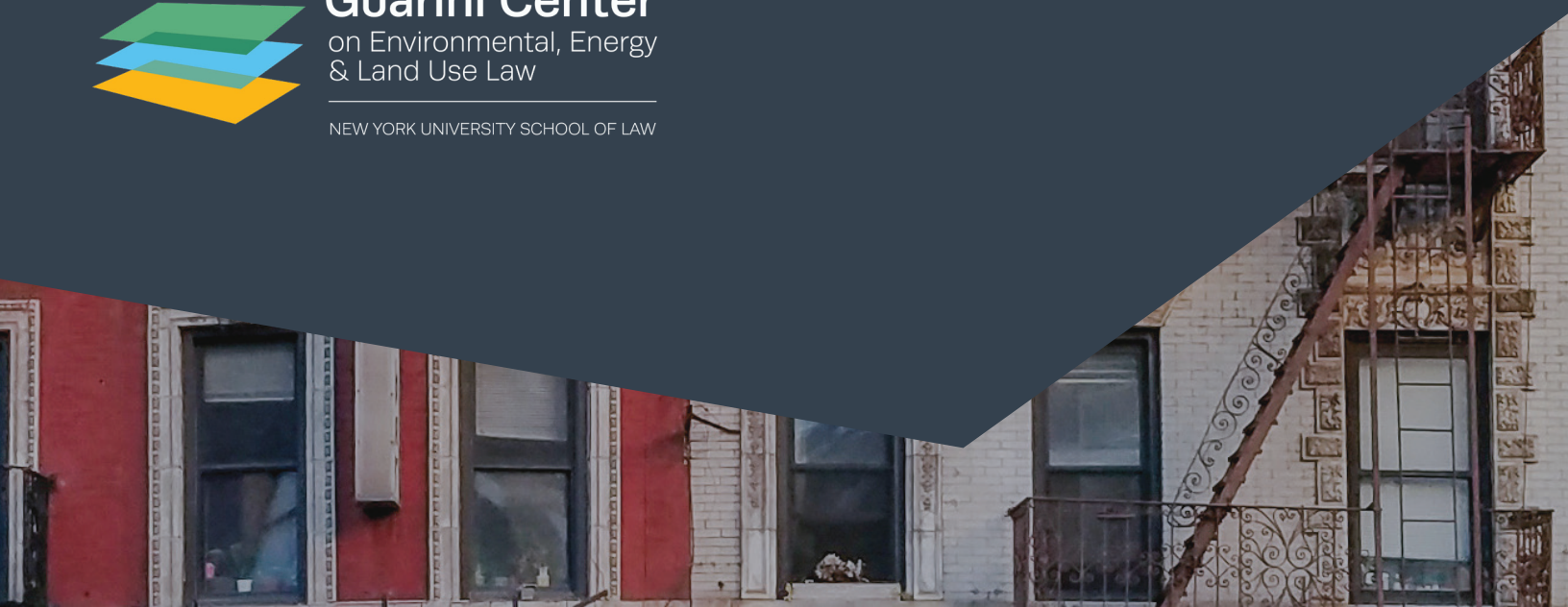

POLICY BRIEF

Equitable Electrification: Could Electrification of Multifamily Housing in New York City Aggravate Energy Insecurity?

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Introduction

Electrifying buildings by replacing gas-powered stoves and heaters with electric models is currently a favored policy for decarbonizing buildings. Heat pumps, in particular, have become increasingly popular due to their high efficiency rate in heating air. Towards this end, a number of progressive cities and states have adopted policies promoting electrification, and the federal Inflation Reduction Act contains several additional incentives for electrification.[1] From a climate perspective, this makes sense; buildings cannot dramatically reduce emissions without moving away from onsite combustion of fossil fuels. And from a public health perspective, this makes sense as well; the indoor air-quality benefits of electrifying gas end-use appliances are likely to be significant, particularly in instances where the fuel combustion is actually occurring within tenant living spaces. However, as some environmental justice advocates have warned, if building electrification is not carefully implemented, it may cause tenants' monthly energy bills to rise—exacerbating energy insecurity among low-and-moderate income households in places like New York City, where a large number of families already struggle to pay for utilities.

There are at least three ways[2] in which electrifying building heating systems could impact tenant utility expenses:

1 To accommodate the rising demand for electricity, electrification will require additional investment to upgrade the electricity grid, which could cause electricity rates to rise.[3] If this is the case, households will have to pay more for each unit of electricity they purchase, whether for heating, lighting, or appliances.

2 Retrofitting properties to electrify them requires capital expenditure, and it is possible that property owners will try to recoup these costs via rent increases.[4]

3 Electrification may shift heating costs onto tenant utility bills without sufficiently offsetting rent.

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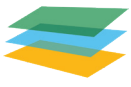
1 Inflation Reduction Act of 2022, H.R. 5376, 117th Cong. (2022).

2 Note that electrification could also increase costs for tenants in buildings that do *not* electrify. The reason for this is that as the customer base for gas utilities shrinks, gas rates for those who remain will likely need to rise because the utility will recoup the cost of investments that it has made from a smaller pool of ratepayers. For an empirical study of these effects, see Lucas Davis & Catherine Hausman, *Who Will Pay for Legacy Utility Costs?* (Energy Inst. at Haas Working Paper, WP 317R, 2022).

3 *See, e.g.*, Eric Daniel Fournier et al., *Implications of the Timing of Residential Natural Gas Use for Appliance Electrification Efforts*, 15 Env't Rsch. Letters 124008 (2020). Note, however, that this study was conducted in a cooling-dominated energy system geography (Los Angeles), which has more temperate winters and thus likely a less balanced set of overall annual heating and cooling total energy demands than NYC.

4 There may be situations as well where charges for major capital improvements (MCIs) present a risk that additional costs will be passed on tenants. N.Y. Comp. Codes R. & Regs. tit. 9, § 2522.4(a)(1) (2022). However, there are protections in place for rent stabilized units. N.Y. Homes and Comy. Renewal Off. of Rent Admin., Fact Sheet #26: Guide to Rent Increases for Rent Stabilized Apartments (2021), **https://hcr.ny.gov/system/files/documents/2022/07/fact-sheet-26-07-2022.pdf**. For example, MCI rent increases may not be applied in buildings with 35 percent or fewer rent-regulated apartments. N.Y. Homes & Comy. Renewal Off. of Rent Admin., *supra*. In addition, there is an annual 2 percent rent increase cap, and rent increases associated with an MCI are not permanent—they must be removed from the rent in 30 years. *Id.* Furthermore, rent stabilization regulations appear to explicitly exclude from the schedule of rent adjustments for MCIs any improvements associated with a conversion from centralized to submetering or direct metering. N.Y. Comp. Codes R. & Regs. tit. 9, § 2522.4(a)(3)(22) ("excluding work done to effectuate conversion from master to individual metering of electricity approved by DHCR pursuant to paragraph (d)(3) of this section" from the schedule of major capital improvements). Note, however, that rewiring is included in the schedule of major capital improvements. *Id.*



The goal of this report is specifically to build understanding about this third risk. We address two main questions:

1 Are there gaps in the legal protections for tenants in New York City (either as written or applied) that put low-income tenants at risk of cost shifting as building heating systems are electrified?

2 How likely is it that landlords will electrify their properties' heating systems in a manner that shifts costs onto tenants?

Our research reveals several legal loopholes that leave tenants of unregulated housing particularly vulnerable to cost increases. At the same time, a survey of industry stakeholders suggests that few owners of multifamily buildings are actually likely to electrify their properties under the current policy framework. Taken as a whole, our findings suggest that, while it is important to continue moving toward electrification, creative law reforms are needed both to catalyze electrification of New York City's building stock and to protect its most vulnerable households from utility cost increases resulting from electrification.

I. Background

Many households in New York City struggle to pay for energy. Nearly 1.3 million New York State residents are behind on utility payments,[5] owing more than $2.4 billion to utility companies,[6] and household debt to utilities is rising.[7] Moreover, advocates have expressed concern about the design of some existing assistance programs that are intended to protect tenants who struggle to pay for their utilities. For example, while the Home Energy Assistance Program (HEAP) is supposed to provide financial aid to tenants who are unable to pay their heating bills, advocates have raised concerns about the accessibility and sufficiency of HEAP benefits, noting that the application process is not user-friendly. Others have called the program a "band-aid" that fails to address the inefficiencies of both the grid and the building stock. And while utility providers also offer subsidy programs of their own to protect qualified tenants from increases on their bills,[8] these subsidies have not solved the problem of energy insecurity.

The Status Quo: How Heat is Provided and Charged in Multifamily Buildings Today

Today, heat in multifamily buildings in New York City is typically generated centrally in a natural gas or oil-fired boiler and then distributed to the individual units.[9] Landlords purchase the

5 Sophie Mellor, *New York's Eye-Watering Energy Price Hikes Hit Home as 1.3 Million Residents Fall Behind on Bill Payments*, Fortune, Mar. 18, 2022, **https://fortune.com/2022/03/18/new-york-energy-price-hikes-con-edison-million-residents-behind-on-bill-payments**.

6 Patrick McGeehan, *Utility Bills Piled Up During the Pandemic. Will Shut-offs Follow?*, N.Y. Times, Mar. 19, 2022, **https://www.nytimes.com/2022/03/19/nyregion/ny-utility-bill-moratorium.html**.

7 Quratulain Tejani, *New York Is Facing a Pandemic-Fueled Home Energy Crisis, With No End in Sight*, Inside Climate News, May 20, 2022, **https://insideclimatenews.org/news/20052022/new-york-utility-bills/**.

8 *Id. See also, e.g.*, ConEdison, *Payment Plans and Assistance*, **https://www.coned.com/en/accounts-billing/payment-plans-assistance**.

9 City of N.Y., *Handbook for Multifamily Buildings* 19 (2016), **http://www.nyc.gov/html/gbee/downloads/pdf/nyc_carbon_challenge_handbook_for_multifamily_buildings.pdf**. New York City has recently moved, however, to ban natural gas and fuel oil in new buildings. Scott Disavino, *New York City Bans Natural Gas in New Buildings*, Reuters, Dec. 15, 2021, **https://www.reuters.com/markets/us/new-york-city-set-ban-natural-gas-new-buildings-2021-12-15/**.

heating oil or natural gas on which the system runs and are generally responsible for supplying the heat to tenants as part of their rent.[10] Electricity, by contrast, is more often charged to tenants directly. There are three options for how electricity can be billed in multifamily housing:

1 **Master metered.** A single meter serves the entire property, and tenants have fixed shares of the building's total electric costs included in their rent.[11]

2 **Submetered.** Tenants have individual meters in their unit that record their actual usage and determine the portion that they pay; the tenant pays this amount to the landlord, rather than to the utility provider.[12]

3 **Directly metered.** Individual units have their own meters, and the utility company bills tenants directly for the amounts of electricity they use.[13]

The fact that tenants are often charged separately for electricity but not heat raises the possibility that landlords could shift the cost of heating to tenants following electrification by adding the cost of heating to tenants' electric bills. Whether it is legally or economically possible to do so, and whether tenants who are charged directly for heating must receive a reduction in rent, are separate questions. Different types of housing and tenants will have different degrees of protection. Tenants in rent regulated units, for example, generally receive more protection against cost-shifting than tenants in market-rate units.[14] The legal protections afforded to tenants may also vary according to the technological approach to electrification that is employed. Broadly speaking, there are two different ways that owners of multifamily housing can electrify their heating systems:

1 **Centralized conversion.** Owners can replace a *centralized fossil-fuel system* with a centralized electric-fueled system; or

2 **Decentralized conversion.** Owners can decommission the central boiler and install heat pumps in each *individual unit*.

The approach that a landlord takes impacts tenants' protections. For example, when a building pursues a centralized conversion with heat pumps, tenants can be submetered based on the tracking of refrigerant flows even though there is technically no submetering of electricity; because there is no submetering of electricity, there is less regulatory oversight of the conversion.[15] This is an area where technology seems to have gotten ahead of the law.

Before continuing further, it is important to note that there are environmental arguments for wanting to make tenants directly responsible for their heating costs, including that doing so encourages conservation.[16] Numerous studies show that tenant energy use declines when tenants are required to pay for their utilities directly, which suggests that tenants often use more energy than necessary when it is included

10 *See infra* Part III.

11 U.S. Dep't of Hous. and Urb. Dev., *Public Housing Energy Conservation Clearinghouse: Key Utility Terms*, **https://www.hud.gov/program_offices/public_indian_housing/programs/ph/phecc/definitions**.

12 *Id.*

13 *Id.*

14 See Part II below.

15 As will be explained in Part IV, *infra*, the regulations that restrict landlords' ability to shift costs to market rate tenants specifically apply to the sub-metering of the electricity used for heat; however, when heat pumps are used to electrify systems on a decentralized basis, it is possible to sub-meter tenants by tracking refrigerant flows from the centralized heating system to individual apartments. While electricity use is ultimately used to bill tenants, it is not what is tracked, and the Public Service Commission has not recognized this as electric submetering. At present, there do not appear to be any regulatory controls that restrict landlords' ability to submeter based on refrigerant flows.

16 *See, e.g.*, Arik Levinson & Scott Niemann, *Energy Use by Apartment Tenants When Landlords Pay for Utilities*, 26 Res. & Energy Econ. 51 (2003).

FEDERAL	STATE	LOCAL
HUD	HCR, PSC	HPD, NYCHA
• Subsidizes housing • Issues guidance for state & local housing authorities	• Subsidizes housing (HCR) • Administers state rent regulations (HCR) • Regulates electric & gas utilities (PSC)	• Subsidizes housing (HPD, NYCHA) • Administers affordable housing programs (HPD, NYCHA) • Owns & operates public housing (NYCHA)

Table 1. Key agencies involved in housing and utility law in New York City.

in their rents.[17] However, directly charging tenants for their energy also puts tenants at an increased risk of price volatility, which low-to-moderate income (LMI) households may struggle to accommodate, and increases housing costs overall if there are no offsetting reductions in rent. With these concerns in mind, the next section examines whether there are gaps in the legal protections for LMI households that risk increasing energy insecurity in New York City, whether by increasing exposure to utility cost fluctuations or shifting the cost of heating onto tenants without commensurate reductions in rent.

II. Types of Housing in NYC

The field of multifamily housing law in New York is complicated, in part due to the wide variety of tenancy types and the number of agencies involved with setting laws and regulations regarding eligibility for subsidies, rent, and so on. It becomes even more complicated when utilities are factored in, as different types of tenancy afford different protections against utility cost-shifting to tenants. It is also possible for multiple types of tenancy and their corresponding laws and regulations to apply to a single rental unit.

Not only are there overlapping local, state, and federal laws that govern affordable housing in New York City, but there is also a wide range of agencies at each level of government involved in administering these programs and setting policy guidelines. Besides these agencies administering affordable housing programs, the Public Service Commission regulates utility services, including electricity and gas services in residential properties. This means that law reforms may need to target multiple agencies to be fully effective. Table 1 lists some of the key agencies involved in regulating housing in New York City.

To assess the legal protections for tenants as they exist today, the first step is to lay out the different types of tenancies that make up the affordable housing stock in New York City. Table 2 provides a summary of the most common types of tenancy; the following section provides more detail on the laws and policies that govern each. We consider both protections that run with the property ("project-based" regulations), as well as protections to which certain types of individuals are entitled ("tenant-based" regulations).

17 *See, e.g.*, Kenneth Gillingham et al., *Split Incentives in Residential Energy Consumption*, 33 Energy J. 1 (2012).

MARKET-RATE HOUSING*	
* Includes Naturally Occurring Affording Housing (NOAH) units	
AFFORDABLE HOUSING	
Project-based	**Tenant-based**
• Rent stabilized • Inclusionary housing • 421-a, J-51 tax abatements • Public housing • Mitchell-Lama • LIHTC	• Section 8 HCV • SCRIE/DRIE

Table 2. Common types of tenancy in New York City.

Unregulated Market-Rate Housing

Unregulated units in the private market account for approximately 937,000 of the 2.2 million rental units in the city.[18] Of these, roughly 49,800 units are naturally occurring affordable housing (NOAH), which is defined as unregulated, market-rate housing whose rent naturally falls within the realm of affordable housing.[19] Most of these buildings have between three and five units, and there are no restrictions on who can reside in them.

Rent Regulated Housing

Around one million housing units in New York City are rent regulated.[20] This category includes both *rent controlled* and *rent stabilized* units. Rent and eviction terms are heavily regulated in both types of properties.[21]

Rent control. Rent controlled units are freely available to all on the private market, with no eligibility requirements for particular income levels. Due to the low number of rent controlled units, the rest of this article focuses on rent stabilization.

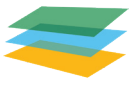
Rent stabilization. Rent stablization covers (1) units in buildings with six or more units that were built between February 1, 1947 and January 1, 1974; (2) units in buildings within six or more units that were built before February 1, 1947 and are occupied by tenants who moved

18 N.Y.C. Rent Guidelines Bd., *Housing Types*, NYC.gov, https://rentguidelinesboard.cityofnewyork.us/resources/apartment-hunting/housing-types/.

19 Howard Husock & Alex Armlovich, *NOAH in New York: The Surprising Extent of Naturally Occurring Affordable Housing*, 40 Manhattan Inst. for Pol'y Rsch. Issue Brief 1 (2015).

20 N.Y.C. Rent Guidelines Bd., *supra* note 1.

21 In rent controlled units, the Rent Guidelines Board (RGB) establishes a Maximum Base Rent for each apartment, adjusted every two years. Owners who provide required services and do not have ongoing violations may raise the rent the lesser of either the average of the five most recent annual rent increases for one-year renewal leases or 7.5 percent, until they reach the Maximum Base Rent. In rent stabilized units, the RGB sets rates for maximum rent increases each year. Fact Sheet #1, *supra* note 7.



in after June 30, 1971;[22] and (3) units in buildings with three or more units that were either constructed or renovated after 1974, and that receive tax or program benefits which require the units to register as rent stabilized.[23]

Rent Subsidized Housing

Tenants in subsidized housing only pay a portion of their income towards rent; the subsidy program pays the remainder of the rent to the landlord. Participation in the programs is often restricted to tenants who satisfy certain qualification requirements, based on income, age, household size, and so on.

Public Housing. While federally authorized and funded, state public housing authorities (PHAs) are responsible for developing, owning, and managing the public housing projects. The designated PHA for New York City is the New York City Housing Authority (NYCHA). Eligibility for public housing is based on household size and income.

Section 8. This program aims to help LMI households "to rent a housing unit of better quality than they could unassisted."[24] Benefits are either tenant-based or project-based. For tenant-based benefits, a tenant receives a certificate or voucher that allows it to find their own unit on the private market, whereas project-based benefits are tied to a particular unit of housing.

Low Income Housing Tax Credit (LIHTC). This program gives state and local agencies the authority to offer a dollar-for-dollar reduction in federal income tax liability to investors for the acquisition, rehabilitation, or new construction of rental housing targeted to lower-income households.[25]

Other Housing Programs

There are other programs in New York State and City that are not neatly categorized as either rent stabilized or rent subsidized.

Mitchell Lama. In 1955, New York State created the Mitchell-Lama program to provide subsidies for the construction of affordable housing for middle-income residents.[26] All Mitchell Lama units have occupancy and income requirements, though they vary across developments.[27] The housing development company for each development sets the schedule of rents and carrying charges (including utilities) for the unit, which must be approved by the regulating agency.[28] Both city and state loans finance these projects.

SCRIE/DRIE. Tenants that live in either rent stabilized or Mitchell-Lama housing may receive additional benefits if they are eligible for either the Senior Citizen Rent Increase Exemption (SCRIE) or Disability Rent Increase Exemption (DRIE). SCRIE exempts low-income tenants who are 62 or older from rent increases, and

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22 Note that prior to the 2019 Housing Stability and Tenant Protection Act, it was possible for units to sunset from the rent stabilization program under certain conditions, for example, after vacancy when the rent reached $2,774.76 or if the tenant's income rose to $200,000. Lebovits et al., supra note 8. Under the HSTPA, rent regulated apartments may only be deregulated if 75 percent of apartments in a building are replaced or the building is demolished. *Id.*

23 For example, units receiving 421-a or J-51 benefits must be rent stabilized. Note, however, that the 421-a program recently ended in June 2022. *See* Janaki Chadha & Danielle Muoio Dunn, *Uncertain Future Following End of 421-a*, Politico (Jun. 21, 2022), **https://www.politico.com/weekly-new-york-real-estate/2022/06/21/uncertain-future-following-end-of-421-a-00040812**.

24 NYCHA 2022 Fact Sheet, N.Y.C. Hous. Auth., **https://www1.nyc.gov/assets/nycha/downloads/pdf/NYCHA_Fact_Sheet_2022.pdf**.

25 Roman Pazuniak et al., Utility Allowances in Federally Subsidized Multifamily Housing 78 (June 10, 2015) (unpublished manuscript), **https://furmancenter.org/files/NYUFurmanCenter_UtilityAllowances_June2015.pdf**.

26 *Mitchell-Lama*, N.Y. State Homes & Cmty. Renewal, **https://hcr.ny.gov/mitchell-lama**.

27 N.Y.C. Rent Guidelines Bd., *supra* note 61.

28 28 RCNY § 3-10(b)(2).

DRIE exempts tenants with disabilities from rent increases.[29]

III. Legal Protections and Risks

Not all types of LMI tenants in New York City appear equally susceptible to utility cost increases as a result of electrification. At a general level, we have identified a sliding scale of tenants' vulnerability to cost shifting, ranging from those whom the law leaves most vulnerable to those who are not legally vulnerable. The types of tenancy that fall into each category are presented in Table 3. Critically, this taxonomy only assesses the degree of legal protection against cost-shifting these different types of tenants enjoy; it does *not* consider whether landlords of a particular type of housing are actually likely to electrify their properties.

These categories provide a broad generalization of tenants' potential vulnerability, and there will be variation in levels of vulnerability both across different types of tenancy and within a particular category of tenancy. Two rent stabilized units, for example, may have different levels of protection depending on whether heat is a required service. Tenants of rent subsidized units may also see different levels of protection depending on whether utilities are included in their rent or if they receive a utility allowance, which might be insufficient to offset their actual electricity bill. The following section sets out the various legal regulations in some greater detail to explain how we distilled the legal protections against cost shifting in each category of vulnerability that is presented in Table 3.

It is important to note as well that for all tenancy categories, there are additional programs available that offer support to tenants facing difficulty in paying their heating bills. However, these programs have proven insufficient to stave off energy insecurity in New York City.[30]

Most Vulnerable: Market-Rate Housing

Tenants of market-rate housing have the fewest legal protections from cost shifting. Generally, in market-rate housing, any tenant protections will come from the lease terms agreed upon between the landlord and the tenant. While there is a legal requirement that landlords provide heat to tenants under the warranty of habitability,[31] there is no legal requirement that landlords be the ones to pay for that heat.[32] Rather, who pays for heat will depend on the specific terms of a lease agreement.

Despite rent being "unregulated," electrical service in market-rate units still is subject to certain state utility regulations because the state Public Service Commission (PSC) sets conditions on submetering for electricity,[33] which is necessary to separately charge tenants for the electrical consumption used in a decentralized conversion to electric heat. Specifically, all residential buildings, regardless of tenancy type, are required to seek PSC approval when switching from master metering or direct metering to electric submetering,

29 There are also income eligibility requirements for SCRIE and DRIE benefits: the total household income cannot exceed $50,000 annually. N.Y.C. Dep't of Fin., *Freeze Your Rent: A Guide for Tenants*, **https://www1.nyc.gov/assets/finance/downloads/pdf/brochures/scriedriebrochure.pdf**.

30 *See supra* note 26 and accompanying text.

31 N.Y. Real Prop. Law § 235-b; Multiple Dwelling Law § 79; Multiple Residence Law § 173.

32 A Furman Center report on utility costs in market-rate multifamily housing refers to situations both where the property owner pays for utilities and where the tenant pays for their own utilities. Pazuniak et al., *supra* note 86.

33 *See* N.Y. Comp. Codes R. & Regs. tit. 16 Part 96 (regulating conversion from master or direct metered electricity to submetered electricity).

MOST VULNERABLE	Market-rate housing (including NOAH)
LESS VULNERABLE	Stabilized housing & Subsidized housing
NOT VULNERABLE	SCRIE, DRIE & Public Housing

Table 3. Categories of vulnerability based on risks and uncertainties.

including for electric heat,[34] and the PSC will only authorize electric heat conversions to a submetered system upon a showing that submetering will be in the public interest.[35] Still, there are two "loopholes" in the PSC regulations that leave market-rate tenants vulnerable to cost-shifting:

First, the PSC does not regulate the submetering of heat *independent* of the submetering of electricity. Therefore, if a building already has submetered or direct metered electricity, PSC will not review the decision to then later transfer heat onto the electric bill.[36]

Second, the PSC does not review centralized conversions that track the flow of refrigerants.37 Thus, a building that continues to produce heat from a centralized system, but installs heat pumps to produce the heat, and charges tenants individually for their heating based on refrigerant flows, would not have to acquire PSC approval. Therefore, it seems that landlords looking to shift costs of utilities to tenants could pursue centralized conversions and charge tenants of market-rate housing for their proportionate share of heating without PSC review or a related rent reduction.

Less Vulnerable: Rent Regulated and Subsidized Housing

There are two broad categories of tenants that we believe are less vulnerable to cost shifting than market-rate tenants, yet still face some exposure; these tenants are those in rent regulated housing and rent subsidized housing. In both cases, the main reason for the vulnerability is that legally mandated rent reductions that accompany electrification are unlikely to vary as quickly as electricity prices, leaving tenants on the hook for potential swings in electricity prices that previously would have been absorbed by the landlord.

Rent Regulated Housing

Tenants in rent stabilized units are protected by the same PSC regulations as market-rate units. However, HCR also grants these tenants additional protections against shifting the cost of heat onto tenants.[38]

34 N.Y. Comp. Codes R. & Regs. tit. 16 Part 96. The section does not, however, include any legal requirement that PSC must give similar approval when switching from master metering to direct metering. Rather, Part 96 of the PSC regulations only address situations where a unit is switching from direct or master metering to submetering.

35 N.Y. Comp. Codes R. & Regs. tit. 16 § 96.3(b)(1)(iii). In practice, however, PSC rarely, if ever, declines petitions to submeter; rather, there are usually particular issues that need to be addressed before approval is granted. Call with PSC, Feb. 17, 2022.

36 Call with PSC, Feb. 17, 2022.

37 Call with PSC, Feb. 17, 2022. Note that this decision was made due to the way the refrigerant flow is measured; if other systems measure refrigerant flows differently, there may be a case involving a different system where PSC approval would be required.

38 Operational Bulletin 2014-1, *supra* note 17; Update No. 1 to Operational Bulletin 2014-1: Conversion from Master to Individual Metering of Electricity with Direct Payment by Tenant (2015), **https://hcr.ny.gov/system/files/documents/2018/11/update1operationalbulletin2014-1.pdf** [hereinafter Update No. 1].

Where a landlord of a stabilized unit included heat in the rent at the time that the property entered rent stabilization, heating is considered a "required service."[39] This characterization is important because landlords may not adjust the legal regulated rent or make changes to the required services without HCR approval, and they can only do so for reasons specified in the regulations,[40] which include converting to direct metering or submetering for electricity.[41] If a landlord does receive approval to switch to direct metering or submetering, they must reduce rent based on a schedule provided by Operational Bulletin 2014-1.[42]

While many landlords seek and receive HCR approval to convert to submetered *electricity*, HCR currently has a policy against approving any reductions in the provision of required services that shift the cost of *heat* to the tenant.[43] This would either prevent landlords from switching to direct metering or submetering altogether, or require landlords to retain the costs in the event that they pursue any conversion to submetering.[44] Either outcome would seem to make concerns about cost-shifting moot. However, this policy also significantly disincentivizes electrification, which puts it at odds with state climate goals, and HCR has indicated that it might consider permitting landlords to shift the cost of heating to tenants with a commensurate rent reduction in the future.[45] If HCR permits the cost of heating to be added to tenants' electricity bills, tenants will face increased risk of electricity price fluctuations; whereas previously, electricity price fluctuations only impacted the cost of lighting, cooling, and refrigeration, now, heating costs will be variable as well.[46] Furthermore, non-payment of electric

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39 Required services are defined as "[t]hat space and those services which the owners was maintaining or was required to maintain on the applicable base dates set forth below, and any additional space or services provided or required to be provided thereafter by applicable law. These *may* include, but are not limited to, the following: repairs, decorating and maintenance, the furnishing of light, *heat*, hot and cold water, elevator services, janitorial services and removal of refuse." N.Y. Comp. Codes R. & Regs. tit. 9 § 2520.6(r)(1) (emphasis added).

40 N.Y. Comp. Codes R. & Regs. tit. 9 §§ 2522.1, 2522.4. This has proven to be problematic in the past, and in 2015, the state Tenant Protection Unit launched an investigation into landlords who illegally converted from a centralized to decentralized heating system, charging tenants for their heat. N.Y. Homes & Community Renewal, *Tenant Protection Unit*, **https://hcr.ny.gov/tenant-protection-unit** (describing the investigation, including how landlords were "ordered to make the necessary steps to rectify their illegal acts, including making a formal application to the ORA, seeking permission to modify their building's heating/hot water service and implementing a permanent rent reduction for the regulated tenants.").

41 N.Y. Comp. Codes R. & Regs. tit. 9 § 2522.4(d)(3).

42 N.Y. Comp. Codes R. & Regs. tit. 9 § 2522.4(d)(3); Operational Bulletin 2014-1, *supra* note 17; Update No. 1, *supra* note 116. Operational Bulletin 2014-1 provides different rent reductions based on the number of rooms in the unit; the bulletin was updated in 2015 with a new rent schedule. Update No. 1, *supra* note 116. Note that the schedule of rent decreases for submetering is lower than the schedule for direct metering. There are additional restrictions against submetering and direct metering for SCRIE/DRIE tenants in rent regulated housing.

43 The Operational Bulletin applies for electricity, but HCR requires, as a matter of policy, that the landlord continue to pay for heat. *See* HCR Docket No. TH220060RO (2008) ("With regard to charging the tenant separately for heat and hot water, it has been long-standing HCR policy, upheld by the courts, that rent regulated tenants are not liable for the cost of heat and/or hot water *under any circumstances*. The provision of heat and hot water is a fundamental service which must be provided by the owner and included in the tenant's rent.") (emphasis in original).

44 While several cases involving converting to submetered electric heat have been approved by HCR in the past, these involved owners who continued to pay for electric heat rather than pass on the costs to tenants. *See, e.g.*, HCR Docket No. BO410030RT (2019) (allowing electricity to be removed from the bill where the landlord has ensured that "no cost for heating via fans or otherwise are passed on to the tenants").

45 *See, e.g.*, HCR Docket No.ER410002RO (2017) (stating that, in a case where the landlord was requesting a modification of the building's HVAC system, the landlord has an option to "either (1) establish that the subject HVAC changeover is being effected at no charge to the tenants, or (2) to assist the DHCR in determining an appropriate permanent reduction in the legal rent going forward").

46 Katherine Blunt, *Why Your Electric Bill Is Soaring—and Likely to Go Higher*, Wall St. J., Mar. 14, 2022, **https://www.wsj.com/articles/why-your-electric-bill-is-soaring-and-likely-to-go-higher-11647250380**; Mellor, *supra* note 23.

bills now also has the effect of shutting off heating—increasing the risks for tenants.

Finally, if heating is *not* included as a "required service," the HCR approval and rent reduction requirements pursuant to the Operational Bulletin do not apply.[47] Thus, owners of new stabilized buildings that excluded heating from the regulated rent from the outset could continue to do so.[48] These tenants will not face a new type of charge, as they have always paid for electricity, but they are likely to see greater price fluctuations in the future if, as some scholars project, electricity price volatility increases as we "electrify everything."[49]

Rent Subsidized Housing

Tenants that participate in a subsidy program, such as Section 8 or LIHTC, or projects with regulatory agreements with agencies, also enjoy enhanced protections against cost-shifting compared to market-rate tenants. Subsidy programs cap the total combined payment that a tenant has to make for rent and utilities.[50] For tenants that pay for their utilities separately from rent, the rent is reduced by a utility allowance, and there is a utility allowance schedule that is designed to match the estimated cost of paying for electric heat.[51] Still, as with rent regulated tenants, tenants of subsidized housing will have to pay the difference if their electric heating utility allowances are less than tenants' actual electric cost. Therefore, even if the utility allowances adequately offset tenants' costs on an average annual basis, tenants will become increasingly susceptible to short-term price fluctuations for electricity once they are responsible for their own heating bills.[52] While rent schedules are typically reexamined every year,[53] a tenant's rent is set based on the utility allowances at the *start* of the lease term. This means tenants' utility allowances may not accommodate price volatility that occurs *within* a lease term.[54]

It is worth noting, however, that some discretionary agency policies may protect tenants more so than their legal protections. Of particular importance, while HPD technically provides an avenue for tenant-paid electric heat,[55] the

47 In some circumstances, HCR has determined that heating is not a required service, such as when a unit becomes rent stabilized and a tenant who has already occupied the unit has been and continues to be responsible for paying for heating. *See, e.g.*, HCR Docket No. FO210014RO (2021) In these circumstances, while PSC requirements for submetering would likely still apply, there may not be additional rent reduction protections afforded by rent stabilization laws.

48 This includes, for example, projects that were constructed using 421-a or J-51 tax credits, though the 421-a program expired in June 2022. Matthew Haag & Mihir Zaveri, *Will Ending a Lucrative Tax Break Ease or Fuel the N.Y.C. Housing Crisis?*, N.Y. Times, Mar. 31, 2022, **https://www.nytimes.com/2022/03/31/nyregion/nyc-tax-credit-housing-crisis.html**.

49 Eric Daniel Fournier et al., *Implications of the Timing of Residential Natural Gas Use for Appliance Electrification Efforts*, 15 Envtl. Res. Lett. 124008 (2020).

50 For example, LIHTC caps rent and utilities at 30 percent, as does public housing. 26 U.S.C. § 42(g)(2); 42 U.S.C. § 1437a(a)(1)(A). Section 8 requires rent and utilities to not exceed 40 percent of the tenant's AMI, depending on the payment standard. 42 U.S.C. § 1437f(o)(2)(A).

51 *See, e.g.*, U.S. Dep't of Hous. & Urb. Dev., Utility Allowance Guidebook 49 (2008), **https://www.nhlp.org/wp-content/uploads/HUD-UA-Guidebook-for-PH-2008-unofficial**.pdf. Traditionally in New York City, NYCHA rolls out utility allowances, and other agencies defer to them. However, NYCHA allowances have not been particularly nuanced, accounting for types of building, age, etc. As a result, HPD has started on a small scale to develop HPD allowances as part of a long-term plan to roll out across the city. Call with HPD, March 7, 2022.

52 *See, e.g.*, Samantha Maldonado, *Surging ConEd Bills Leave New Yorkers with Electric Burns*, The City, Feb. 9, 2022, **https://www.thecity.nyc/2022/2/9/22925345/surging-con-ed-bills-leave-new-yorkers-with-electric-burns**.

53 *See, e.g.*, 24 C.F.R. § 982.517(c); Call with HPD, March 7, 2022.

54 Furthermore, the allowable rent increases for projects with tenant-paid heating are not scaled differently than they are for projects without tenant-paid heat.

55 Landlords participating in the Heat Pump Pilot Program can charge tenants for electric heat, with a heat pump utility allowance. N.Y.C. Hous. Preservation & Dev., *HPD Electric Heating Policy*, **https://www1.nyc.gov/site/hpd/services-and-information/hpd-heating-policy.page** (last visited Jun. 23, 2022).

agency has in practice prioritized owner-paid electric heat, particularly where tenants are especially vulnerable; HPD has noted as well that many landlords seem in favor of this strategy and are converting to heat pumps while maintaining the responsibility for electric bills.[56]

Not Vulnerable: SCRIE/DRIE

Tenants in rent regulated and Mitchell Lama housing that are eligible for SCRIE or DRIE benefits have strong protections against cost shifting for electric heating.[57] These tenants have their rents frozen at a fixed rate, which is either the legal rent amount or one third of the tenant's monthly income.[58] Landlords receive a property tax abatement credit reflecting the difference between the tenant's fixed rent and the legal rent for the unit that would have been charged if the individual did not receive SCRIE/DRIE. While the amount at which a tenant's rent is frozen does not typically include utilities,[59] Operational Bulletin 2014-1 provides that landlords *remain* responsible for paying for electricity when the landlord converts to submetering, preventing any cost shifting.[60]

* * *

To summarize, current law leaves open several pathways through which LMI tenants could see their monthly utility costs increase following electrification. Market-rate tenants could start being charged for heating without corresponding rent reductions if they are already submetered or if the landlord electrifies via centralized conversion. In addition, all tenants who start to pay their own heating bills will face greater exposure to fluctuation in electricity prices as it is highly unlikely that HPD's utility allowances or HCR rent reduction schedules will be updated often enough to reflect swings in the electricity markets. Tenants' heightened exposure to electricity price fluctuations will increase the importance of designing and maintaining effective safety-net programs[61] to ensure access to a minimum level of service. It also underscores the importance of pursuing aggressive energy efficiency alongside electrification because the more resource-constrained the electricity system is, the more volatile prices are likely to be.

IV. Market Dynamics

The levels of vulnerability identified above consider only the *legal potential* for cost shifting as written, not the likelihood that a landlord of a particular type of housing would actually electrify their property and attempt to shift the cost onto tenants. In other words, they consider legal vulnerability in isolation, without consideration of market dynamics. But how material is the concern? With this question in mind, we provide insight on two discrete questions:

- How likely are owners of different types of properties to electrify their properties?
- To the extent that owners are likely to electrify their properties, are they likely to do so on a centralized or decentralized basis?[62]

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56 Roundtable Discussion, Apr. 7, 2022.

57 *See* Operational Bulletin 2014-1, *supra* note 18 (for rent stabilized units); Mitchell Lama Rules § 3-19 (noting rules for SCRIE beneficiaries). Note that Mitchell Lama rules do not appear to have a similar provision for DRIE.

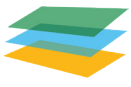
58 N.Y.C. Department of Finance, Your Guide to the Senior Citizen Rent Increase Exemption (SCRIE) Program and the Disability Rent Increase Exemption (DRIE) Program (2014).

59 *Id.*

60 *See, e.g.*, Operational Bulletin 2014-1, *supra* note 18 (stating that "for those tenants the rent is not reduced and the cost of electricity remains included in rent").

61 Even while programs like HEAP provide some residents with a certain level of assistance, these programs only reach the lowest income households, which means that many residents struggling to pay for their heating cannot access the benefits at all.

62 Recall that the means of electrification matters because there is no Public Service Commission oversight of centralized conversions that charge tenants based on refrigerant flows. *See supra* notes 114–115 and accompanying text.



To answer these questions, we conducted interviews with ten experts in New York City. Five of the individuals own residential apartment buildings themselves or represent owners of residential apartment buildings. The other five individuals are sustainability consultants and building engineers. The interviews were conducted between May and July of 2022. Our interviews yielded 3 key findings:

Few owners of multifamily housing are actively contemplating electrifying existing heating systems

Interview subjects were nearly unanimous in their opinion that it would not be economic for owners to retrofit their properties to electrify heating systems under present circumstances. "Every single economic indicator says not to do this," one owner argued. The interviewees gave several reasons for their skepticism:

- Retrofitting New York City's large, often pre-war buildings to accommodate electric heating can be highly capital intensive; when combined with the high cost of electricity in New York City, payback times for electric heat are generally extremely long, "up to 20–30 years for big retrofit projects," which makes electrification unappealing to owners.

- The lax requirements that LL97 sets for the early years after the law takes effect and lack of clarity regarding the rules that New York City will develop to implement its building performance standard have discouraged owners from taking action to electrify in the near-term.[63] "No one wants to do anything right now because it will be at least ten years until they have to pay fines," one sustainability consultant said.

- With respect to rent regulated housing, the New York State rent reform of 2019[64] and further regulations imposed during the COVID-19 pandemic[65] have left many owners of rent regulated housing with very limited cash reserves; one subject referred to rent regulated buildings as a "depreciating bond." In light of this, few owners of regulated housing have the cash to pay for the capital costs of retrofitting their properties, even with reasonably short payback periods. Moreover, the rent reductions set out in HCR's 2014 Operational Bulletin are too generous towards tenants "to make the numbers work for owners."

- With respect to subsidized housing, the size of the utility allowance that HPD authorizes for electric heat, which is based on the cost of resistance heat, is excessive. Thus, even if HPD were to allow owners to electrify heating and put it on the tenants' bill, it would be uneconomic for these owners.[66]

Notably, two of the interview subjects were more sanguine about the economics of electrification. One subject argued that it may be economic for some owners to electrify after 2029, when the emissions limits set by LL97 become more stringent and more owners face the risk of paying penalties if they continue burning large amounts of fossil fuels onsite. Another individual noted that certain mission-driven owners who want to electrify for environmental reasons are able to "make

63 Owners specifically pointed to the uncertainty regarding the rules the city would establish for the greenhouse gas intensity of electricity that is purchased from the grid after 2030.

64 Lebovits et al., *supra* note 58.

65 During the COVID-19 pandemic, the state introduced an eviction moratorium for tenants who fail to pay their rent. *See COVID-19 Eviction Protections for Tenants*, N.Y. State, https://hcr.ny.gov/covid-19-eviction-protections-tenants.

66 It is worth noting that HPD does have utility allowances for heat pumps, which go through a rigorous vetting process; however, these allowances are currently only allowed to be used in certain circumstances and are not widely publicized.

TENANCY TYPE	LIKELIHOOD OF ELECTRIFICATION	ELECTRIFICATION APPROACH
Market-rate housing (including NOAH)	Somewhat likely	Centralized or decentralized
Rent stabilized housing	Not likely	Centralized
Rent subsidized housing	Not likely	Centralized[1]

Table 4. Likelihood of different properties with different types of tenants will electrify given current costs and regulations and approach to electrification that landlords are likely to take.

1 Note that one of the reviewers of this draft noted that there are certain new technologies coming that would favor decentralized electrification where possible. We include this as a footnote, rather than in the summary table, because this technology was not described by the 10 individuals who were interviewed for the case studies.

the economics work" and thought that other owners could do so as well if they thought about the problem creatively. Finally, one owner pointed out that for newly constructed buildings with rent regulated units, in which heating could be excluded from the list of "required services" from the time that the building begins leasing units, the economics favor tenant-paid electric heat. The same owner noted that in newly constructed unregulated buildings, the economics also favor tenant-paid electric heat.[67]

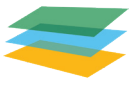
The type of owner is an important predictor of which buildings will electrify

All subjects agreed that owners of large portfolios of properties are more likely to electrify their properties than small owners because few small owners have either the capital necessary to implement the changes nor the staff resources to figure out how best to electrify. This suggests that owners of Naturally Occurring Affordable Housing with fewer than 6 units will be less likely to electrify their properties because these types of properties, which are typically smaller and older than other types of affordable housing, are less likely to be owned by large portfolio owners.

67 See, for example, with HPD's Electric Heating Policy.

Those owners who do choose to electrify their properties are more likely to do so on a centralized basis rather than installing heat pumps in each individual unit

Interview subjects were unanimous in their view that centralized conversions would be a superior strategy for most property owners, especially those who own high-rise buildings. Subjects identified several different reasons for why they preferred the centralized approach, including that the retrofit process causes less disruption to tenants, maintaining the system is less complicated if it does not require management to enter tenants' apartments, and a "centralized system makes a building more adaptable to new technology over time." Another subject also noted that New York City landmarks law often prohibits making the changes to building facades that are necessary to implement a decentralized approach.



All in all, the only scenario in which interviewees believed that the decentralized approach would make sense for rental apartments would be in low-rise buildings with small numbers of units; within the affordable sector, these smaller buildings are likely to be NOAH. That owners intend to electrify on a centralized basis is notable because the state public utility law does not offer protections against cost-shifting where a property is converted on a centralized basis.[68]

The results of our interviews are summarized in Table 4.

Conclusion

Our research provides a mixed picture of whether building electrification is likely to shift the cost of heating onto tenants without commensurate reductions in rent. Despite city and state officials' hopes, our survey of real estate industry experts indicates that few apartment building owners have any plans to electrify their heating systems, and even fewer (if any) plan to do so before 2030.[69] However, to the extent that electrification does occur in the multifamily sector, it is most likely to occur in market-rate housing that is owned by large owners and to be accomplished via centralized conversions. A relatively small share of LMI tenants occupy this type of market rate housing in New York City, but those who do could be charged for their heating without reductions in rents. Thus, to a degree, concerns about cost shifting are justified. Moreover, in states where rent regulation is prohibited,[70] much larger shares of LMI households may be vulnerable to cost shifting.

LMI households that live in stabilized or subsidized housing appear unlikely to be charged for electric heating in the near future. Yet this is somewhat of a Pyrrhic victory because it stems in part from the fact that the existing legal framework makes it particularly unlikely that owners of these kinds of buildings would electrify. For the city and state to achieve their climate policy goals, this dynamic will have to change. Whether via changes to the electricity rate design, utility allowances, Local Law 97, or some combination of all three, New York City and State will need to find a way to incentivize landlords of affordable housing to retrofit their heating systems without leaving LMI households out in the cold. At its core, our research underscores an unsavory reality about trying to design equitable climate policy: sometimes the measures that protect low-income households from paying for the cost of pollution control also make those households least likely to enjoy the benefits of those controls. Figuring out how to lessen this tension is perhaps the defining challenge for the American environmental movement today.

68 *See supra* notes 114–115 and accompanying text.

69 Note, however, that the passage of the Inflation Reduce Act and the launching of programs like the state's Climate Friendly Homes Fund and HCR's Clean Energy Initiative may change the calculus for some building owners.

70 As other cities are retreating from regulating their housing stock, New York City has strengthened its rent regulation protections for tenants. *See, e.g., Battle Goes on as Rent Control is Defeated in Massachusetts*, N.Y. Times, Nov. 22, 1994, **https://www.nytimes.com/1994/11/22/us/battle-goes-on-as-rent-control-is-defeated-in-massachusetts**.html (describing the prohibition of rent control in Massachusetts); Costa-Hawkins Rental Housing Act (1995) (state law limiting rent control in California).

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