

Energy Burden in Hartford, CT.

A REPORT FOR SIERRA CLUB, CT, AND THE HARTFORD COMMUNITY

By

Trinity College Students

Qining Wang
Joshua Jacobes
Gabrielle Desrochers
Hallie Bachman
Ramphis Medina

Trinity College Faculty

H Camilo Ruiz S

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Introduction



In the fall of 2021, the Connecticut Chapter of Sierra Club applied for the Liberal Arts Action Lab research project with a focus on Energy Burden in North Hartford's Upper Albany area. Energy Burden is the percentage of household income spent on energy costs and is considered high when it accounts for 6% or more per annum. During the fall semester of 2021, our group interviewed energy efficiency experts, staff from organizations that work to decrease Energy Burden, and activists. We got the opportunity to take a tour through Upper Albany under the guidance of a professional photographer, Bizzie. We did archival research in digital databases and using historical resources in Hartford Public Library archives room. We gathered a group of photographers, amateur and professional, all Hartford residents, to take photos of what Energy Burden means to them and present them to us. We learned a great deal about Energy Burden and how Hartford's residents conceptualize this through this project. As you read on, you will learn more about how we conducted this research and the results that we found.

Context

Hartford

In Hartford as a whole, around 75% of the population rents homes or apartments (Maciag, 2019). Therefore, renters are not in control of the heating and cooling systems that are implemented, renters cannot renovate their homes, and due to financial difficulties, renters do not own their homes.

Upper Albany

Upper Albany is predominantly Black and Latino with an 85% population of Afro-Caribbean and 14% Latino (Upper Albany Main Street, Inc.). When we were given a tour of Upper Albany from one of our participant photographers, Bizzie talked about how much of the population was Jamaican, with family-owned businesses that had been passed down for generations, and lots of traditional food. This area also experiences high rates of poverty due to an average household income of \$16,000. Most of the Upper Albany neighborhoods fall near or within the scale of poverty.

The demographics of the Upper Albany neighborhood make it clear and important to research. The Upper Albany neighborhood brings up these essential questions: Why does an area with a predominately Afro-Caribbean and Latino and low-income population, have a higher energy burden? Why is the area set up disproportionately for energy burden to occur?

Climate in Hartford and its effect on Energy Burden

Seasonal changes and environmental conditions shed light on underinvestment in heating and cooling systems in the community. Historic redlining, and ever-present underinvestment, have significantly contributed to the existence of “intergenerational wealth disparities experienced by Black, Latinx, and other groups,” translating into a disproportional vulnerability as it pertains to energy equity. Outdated appliances in homes are unsuited to existing environmental conditions, such as inadequate Air Conditioning in the summer and inadequate heating appliances in the winter (Maxim, Grubert, 2021). According to Bizzie, (see Photovoice for reference,) individuals

who are unable to pay their energy bills or do not have sufficient heating systems will place black plastic bags over their windows as a form of isolation. This becomes a vicious cycle: inefficient or outdated appliances lead to higher energy bills which are unrealistic for many to pay. The Energy Burden results from the worsening of already existing disparities in housing through climate-driven changes.

How many people are experiencing Energy Burden in Hartford?

““We know that Connecticut is among the states with the highest energy costs in the nation. When you combine this expense with high transportation and housing costs, it can be crippling for a low-income household. While over 430,000 households in Connecticut meet the eligibility requirements for energy bill assistance, only 18.7% are served through available funding. We need more comprehensive and sustainable solutions to help low-income families in Connecticut afford their energy costs,” said Brenda Watson, Executive Director of Operation Fuel and member of the Board of Directors of the Green Bank.”

Rocky Hill, Dec. 1, 2020

According to the American Council for an Energy-Efficient economy¹ the median energy burden of Afro-American households is 43% higher than that of white (non-Hispanic) households. The median energy burden of low-income households is three times higher than that of non-low-income households. The median energy burden of low-income multifamily households is 2.3 times higher than that of other multifamily households. And the median energy burden of Hispanic households is 20% higher than that of white (non-Hispanic) households.

¹ Page visited on December 12, 2021, <https://www.theguardian.com/environment/2022/jan/16/noises-off-the-battle-to-save-our-quiet-places>

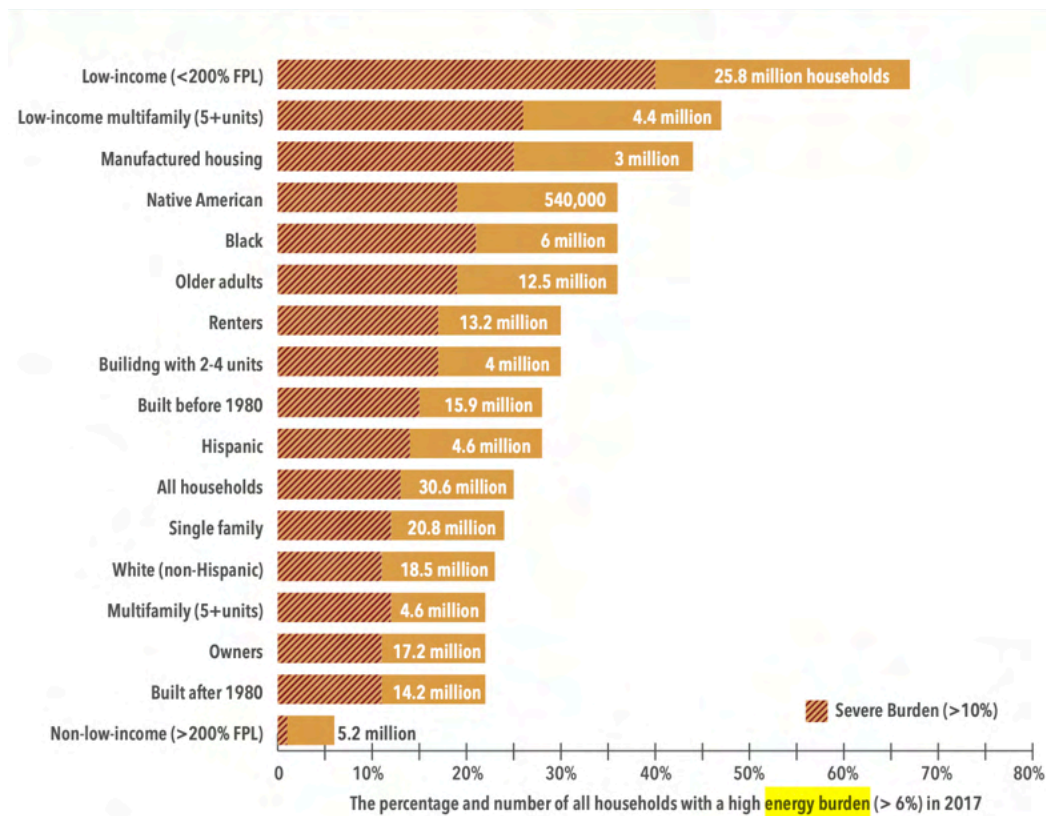


Figure 1. The percentage and number of households nationally with a high energy burden (>6%) across different subgroups in 2017 (Drehobl et al, 2020. p.12)

The low-income Energy Affordability Data (LEAD) Tool is the primary data source we used. LEAD Tool is an online interactive platform for data visualization, exploration, and creating profiles across national, state, county, city, or census tracts. LEAD collected data on household income, energy expenditure, fuel type households used, housing age, occupancy status, and housing type. It makes the comparison between geographic areas easy. We can also see the energy burden and energy cost concerning other related characteristics of households and housing units. Raw data for the LEAD Tool comes from the U.S. Census Bureau's American Community Survey 2018, and the energy data is for housing alone.

Energy Burden is the percentage of a household's annual income spent on energy costs. According to Moore's definition of fuel poverty, the energy burden relates to energy poverty and energy stress (Moore, 2011). Hernandez and Bird (2010) highlight three consequences of energy burden: high energy burden creates illness and stress, financial challenges, and housing

instability. Thus, understanding the dimension of Energy Burden and energy characteristics in low-income housing in Upper Albany can help states, communities, and other stakeholders create better energy strategies and eliminate inequality in energy usage.

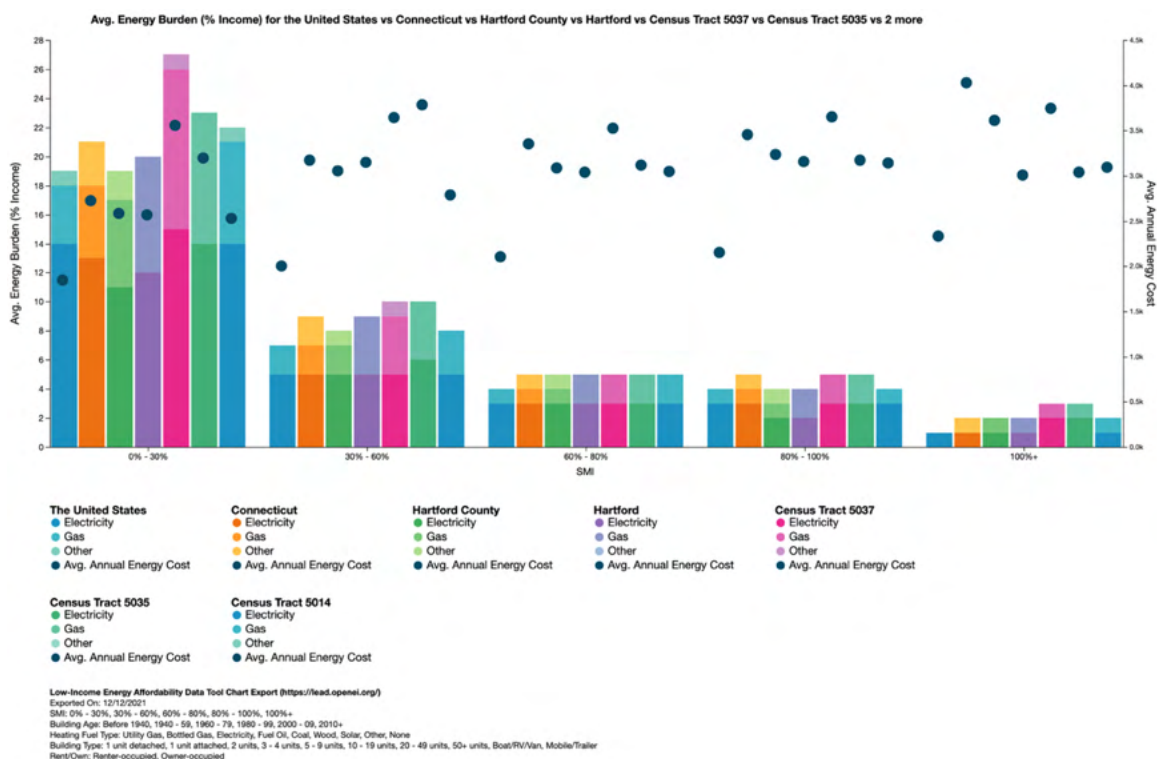


Figure 2. Average energy burden and average annual energy cost in U.S., CT, Hartford, and Upper Albany (represented by census tracts) exported from LEAD Tool

The average Energy Burden on the left axis and the average energy costs on the right axis are shown on the graph compared with different income groups based on State Median Income (SMI). Half of the households in the state earn more than the State Median Income, and 50% of households earn less than the SMI. For example, the first income group in Figure 2. Labeled as 0% to 30% of SMI exhibited the households whose annual income fall within the 0 to 30% of the State Median Income. Learned from Figure 2., households that fall in 0% to 30% of SMI face high Energy Burden in the nation, Connecticut, Hartford County, and Hartford City, and in Upper Albany. Those low-income families hit 27% energy burden, meaning 0-30% of SMI households in Census Tract 5037 spend 27% of their annual income on paying utility usages, such as electricity and gas. Their average annual cost according to LEAD Tool is more than

\$3,500. Connecticut has a higher Energy Burden than the national average, and Hartford has a high Energy Burden compared to other cities in Connecticut (Figure 4).

Table 1. Average energy burden in selected regions

	Connecticut	Hartford County	Hartford City	Upper Albany
Average				
Energy Burden	3%	3%	6%	7.60%

The average Energy Burdens and average energy cost in Upper Albany are estimated on three census tracts: Census Tract 5037, 5035, and 5014. These three census tracts capture the Upper Albany neighborhood. Upper Albany suffers a higher average yearly Energy Burden than Hartford and Connecticut. In Upper Albany, the average energy burden among 2485 households is 7.6%, which means, on average, 7.6% of total 2485 households' income goes to pay for energy needs. Shown on both Table 1 and Figure 2, the Energy Burden is doubled in Upper Albany. We can also see from Figure 2 that electricity is the main utility used across households in all regions and different income levels, implying that energy efficiency policies and policies to relieve energy poverty and inequality could start from electricity consumption.

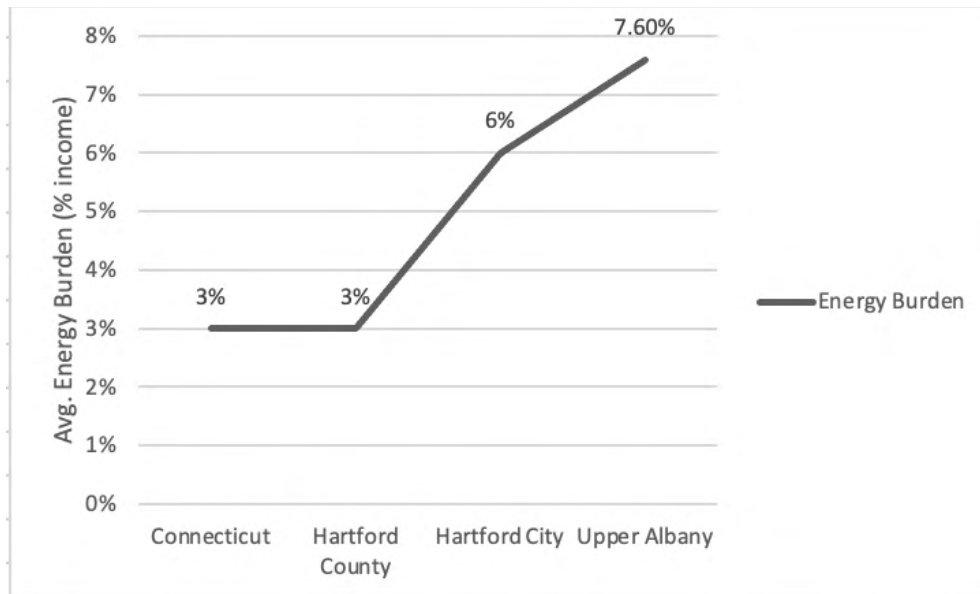


Figure 3. Average energy burden in selected regions

We notice the energy expenditure among different income groups varies much less than the Energy Burden. Households pay a similar amount of energy bills, but among low-income households, this expenditure consumes a much larger proportion of income. Household energy consumption is disproportionately high among low income. Low-income households probably suffer from the old and inefficient appliances and less weatherized housing. However, the expenditure doesn't show a high rate. Apart from the reason that low-income households possibly don't have the fiscal ability to pay for extra usage, as represented on the graph, they are certainly not wasting energy compared to other income groups.

Tips for reading Figure 2:

- Selecting an income group (E.g., 0%-30% of State Median Income)
- Locating a geographic region (E.g., City of Hartford)
- Finding household's average annual energy burden (E.g., average annual energy burden of electricity 12% and gas 8%, total average annual energy burden 20%)
- Finding households' average annual energy cost (E.g., average annual energy cost is around \$3.5k)

Low-Income Energy Affordability Data (LEAD) Tool

Data (housing only) comes from the U.S. Census Bureau's American Community Survey 2018 Public Use Microdata Samples.

Avg. Energy Burden (% income) for Cities in Connecticut

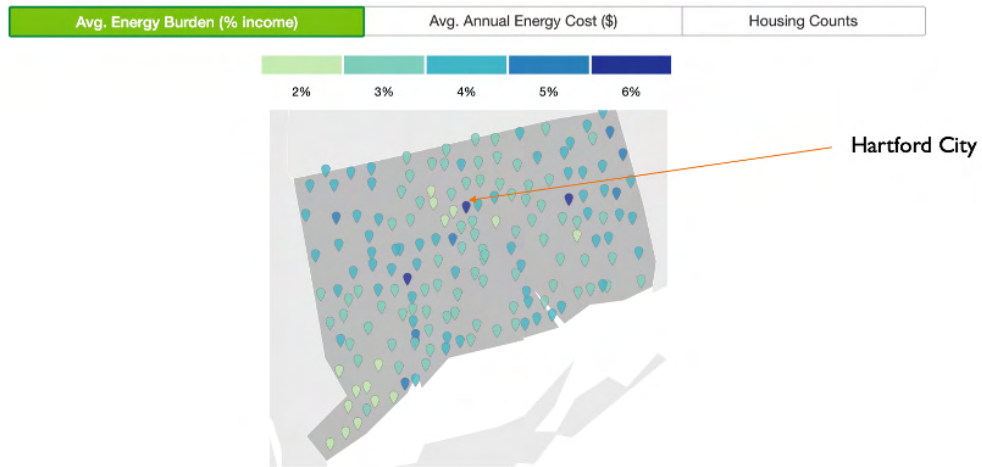


Figure 4. Average energy burden map for cities in Connecticut exported from LEAD

Energy Burden in dialogue with other indexes of inequality

Energy Burdens tend to affect people who already have low income. This is because it is a systematic problem. When we interviewed with energy expert Gannon Long on December 2, 2021, she talked about how many programs do not consider households for payment plans until they are in the emergency state of paying their bills (2nd interview with Gannon).

One of the most documented impacts of Energy Burden has been how it creates and exacerbates health issues. Often people who face energy burden are also those living in housing stock with outdated space conditioning equipment and poorly insulated homes. A typical response to this can be to utilize inefficient and sub-serviced heating equipment. The combination of inefficient housing and poor heating systems will increase the risk of carbon monoxide poisoning, lead exposure, thermal discomfort, and respiratory illness (M.A. Brown, 2020). The increased likelihood for health complications would likely result in increased financial demand on residents who already struggle with Energy Burden from the additional costs of healthcare visits, medication, and other necessary expenses to support care. As well as the physical health decline associated with energy burden is the mental toll:

"Living with energy insecurity represents the consequences of stressors, fears and even mental health related to the inability to pay energy bills and the real potential disconnection of electricity and home gas heating utility services. These effects are amplified for groups vulnerable to additional underlying health issues combined with financial limitations"
(M.A Brown, 2020, p. 3)

For those experiencing Energy Burden, their struggle is not only a financial one but also one that their health will depend on.

Income metrics

The spatial regression of where people are living indicates the authors have proven that socioeconomic variables are the most important driver of Energy Burden (Moore and Webb, 2022). Income-related metrics include median households' income and poverty. They are the key factors in determining the high energy burden in Moore and Webb's research area in Cincinnati.

With a decrease in median household income or an increase in the proportion of households in poverty, the number of households in energy poverty increases significantly, keeping all other variables constant. This correlation proves that low-income families are more affected by energy burden and energy poverty.

Upper Albany has a high unemployment rate, low median household income, and low average household income and per capita income. Table 2 summarizes data from the 2019 American Community Survey data. The low performance of income metrics of Upper Albany could have a driving effect on energy poverty and uplift this high Energy Burden.

Table 2. Income metrics and average energy burden in selected regions

		U.S.	CT	Hartford County	Hartford City	Upper Albany
Average Energy Burden			3%	3%	6%	7.60%
Socioecono mics	Unemployment Rate for Civilian Population in Labor Force 16 Years and Over	5.3%	6.0%	5.8%	12.0%	17.2%
	Median Household Income (In 2019 Inflation Adjusted Dollars)	\$62,843	\$78,444	\$75,148	\$36,278	\$30,050
	Average Household Income (In 2019 Inflation Adjusted Dollars)	\$88,607	\$113,031	\$100,938	\$52,689	\$40,858
	Per Capital Income (In 2019 Inflation Adjusted Dollars)	\$34,103	\$44,496	\$40,540	\$21,163	\$17,020

Renter- Occuped Housing

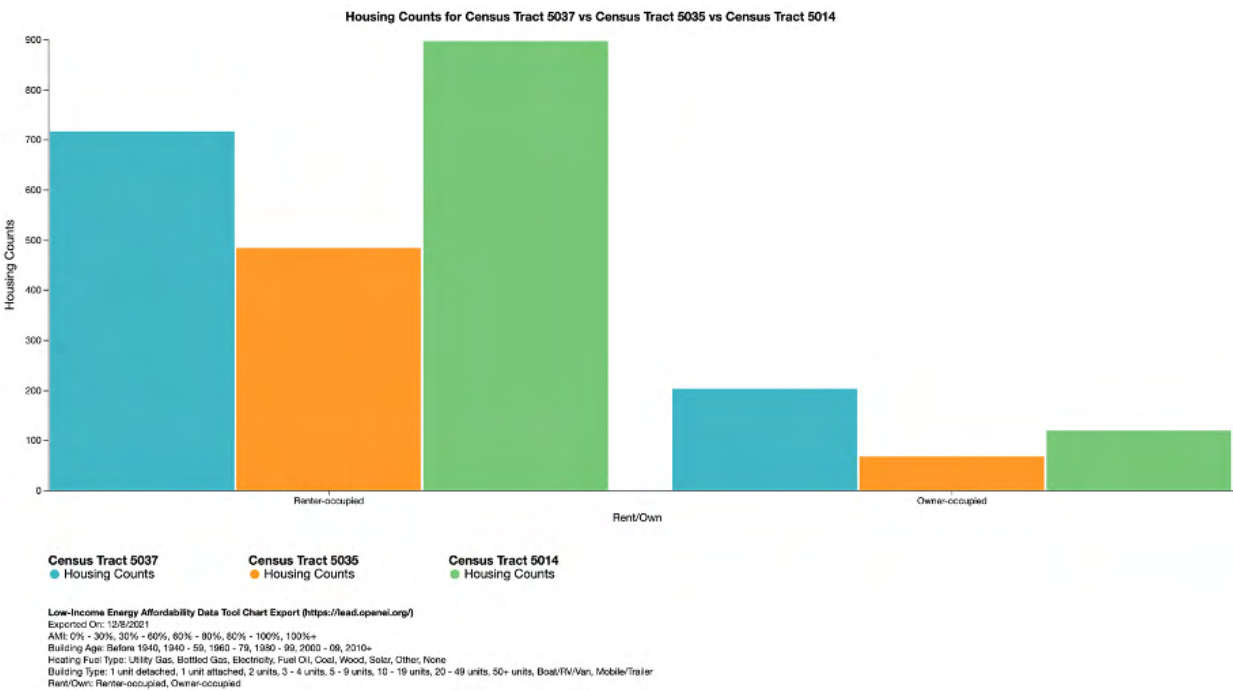


Figure 5. Number of owner-occupied or renter-occupied housing counted by LEAD Tool

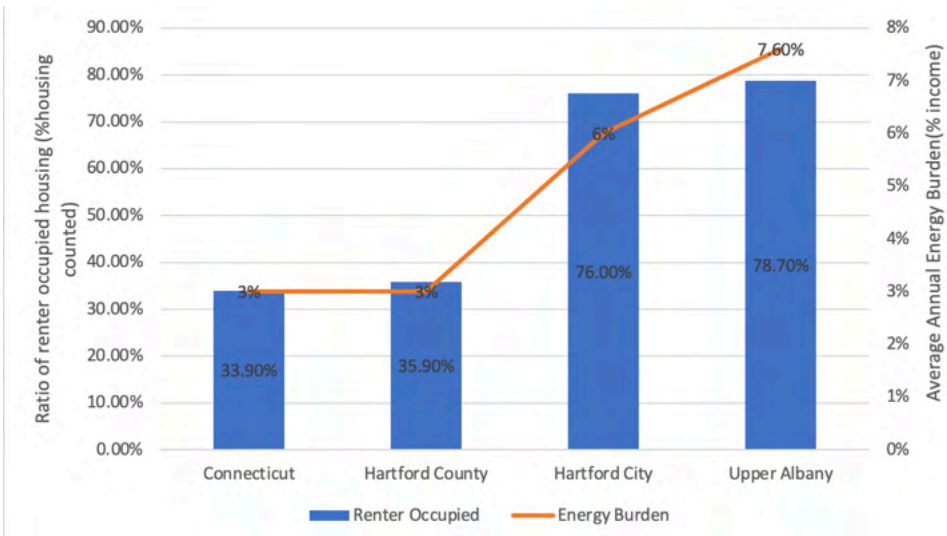


Figure 6. Average annual energy burden with number of renter-occupied housing units

Households are mostly renter-occupied in Upper Albany according to housing units' data collected LEAD Tool (Figure 5). Upper Albany has a high ratio of renter-occupied housing compared to the state average of 33.9%, which is less than half of that of upper Albany. Corresponding with Hernandez's (2010) explanation, tenants face a higher energy burden because landlords rarely spend money on innovating nor upgrading energy-saving applicants. It could be one of the reasons among renters at Upper Albany, leading to a 7.6% average Energy Burden.

Heating Fuel

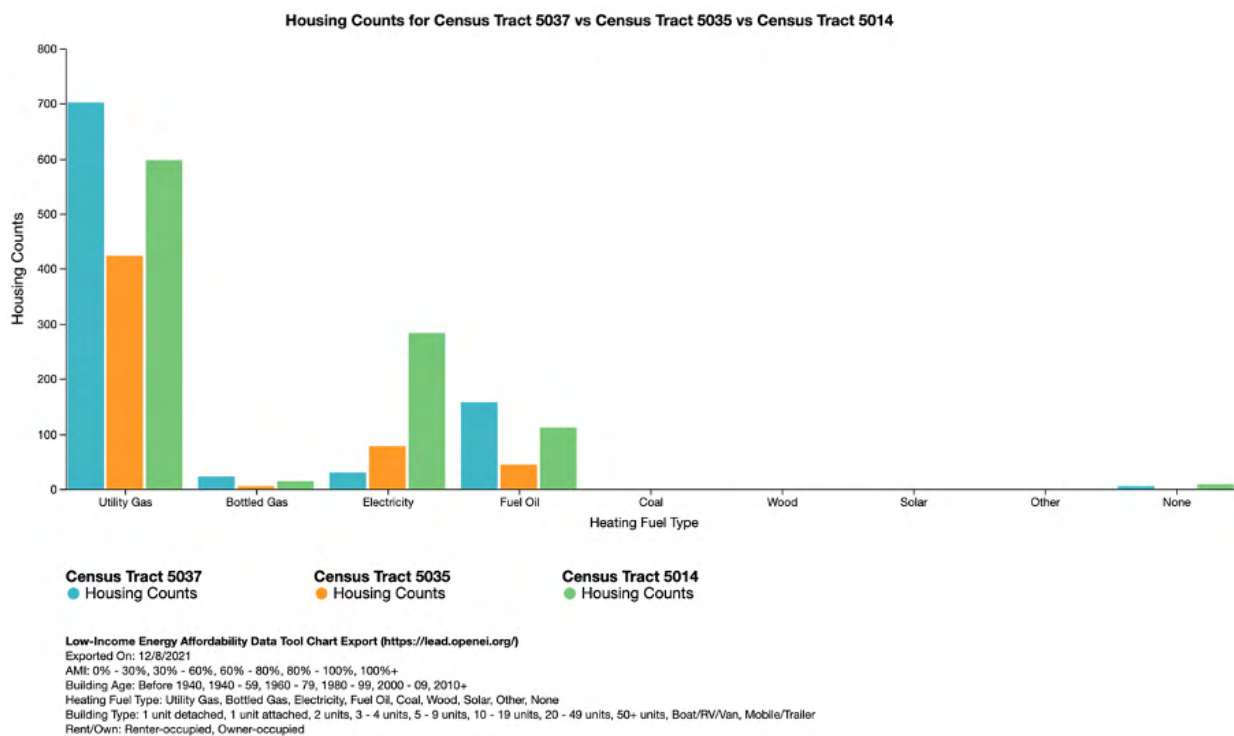


Figure 7. Heating fuel type in Upper Albany

Houses counted within three census tracts are predominately gas heated. We also see a higher Energy Burden in Upper Albany than in Hartford and Connecticut. We cannot conclude that houses using utility gas to heat rooms must have a higher Energy Burden. It contrasts with the New Haven report that electricity is an inefficient heating fuel because it takes too long to heat the whole room. Further statistical tests are needed to justify the correlation between heating fuel and energy burden.

Building Age

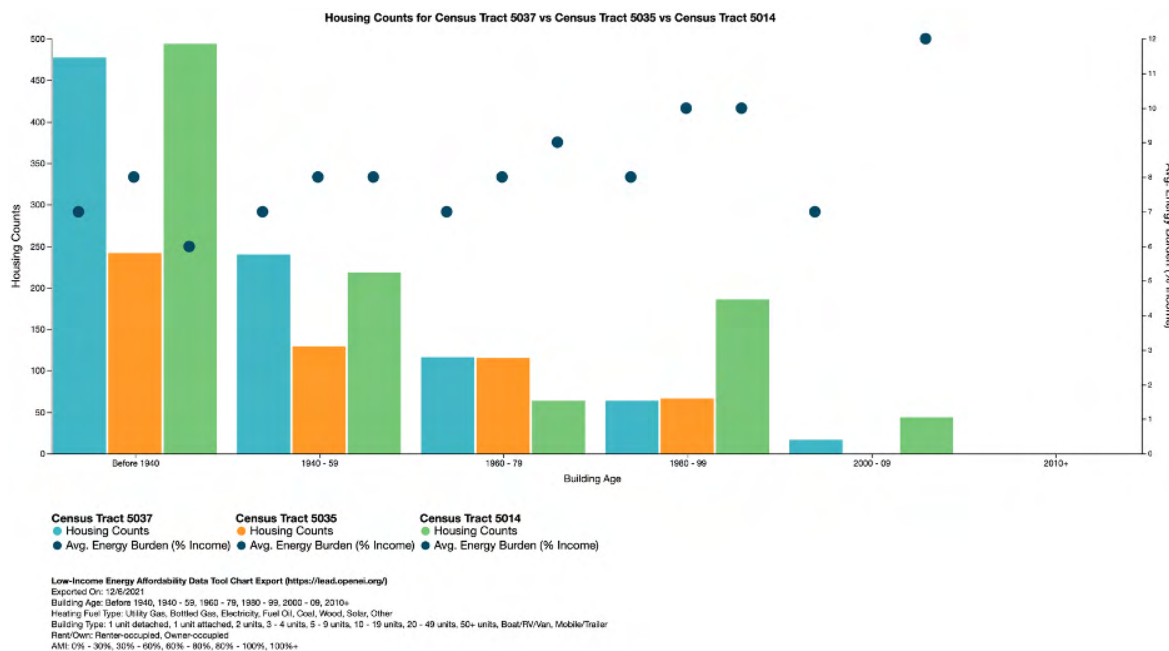


Figure 8. Housing age in Upper Albany

Based merely on data, the old housing units in Upper Albany seem to not have the highest energy burden. According to LEAD Tool, there are no houses built in and after 2010. Our interviewer and community photographer talked about old housing units in downtown Hartford. Although most old houses occupied Upper Albany's streets, and the average annual Energy Burden is high there, we don't know for sure how important the role of housing age played in determining this high energy burden even though we know old housing may be correlated with poor housing conditions and a higher energy burden. This is because the older the house is, the older the appliances in the homes are, and the more money it probably costs to keep the house's temperature regulated. Additionally, families with lower incomes typically buy older houses because they are generally less expensive, and because lower income families make less money than higher income ones, spending a lot of money on regulating the houses heat greatly increases their Energy Burden.

Race

Table 3. Eviction fillings in Hartford City and Upper Albany

	Hartford City		Upper Albany	
		Census Tract 5014	Census Tract 5035	Census Tract 5037
Number of Eviction Fillings	216	6	2	2
Eviction Rate	5.73	/	/	/
Black	19.52%	70.23%	74.17%	85.34%
Latino	27.72%	22.41%	23.76%	7.96%
White	44.79%	3.79%	0.83%	0.00%

Table 4. Race in Hartford County, Hartford, and Upper Albany

	Hartford County	Hartford City	Upper Albany
		123,088	
Total Population	893,561		6,564
White Alone	70.7%	31.3%	9.9%
Black of African American Alone	13.8%	37.7%	79.5%
Energy Burden	3%	6%	7.6%

Connecticut has four cities within the 100 U.S. cities with a high eviction rate. Hartford ranked at #29 with an eviction rate of 5.73% after #22 Waterbury County. According to the filing data on Eviction Lab, the current eviction filings in Upper Albany are predominately self-identified black households. This result sheds light on income inequality and unequal access to housing across race groups in Upper Albany. This racial inequality should be considered when discussing why Upper Albany and other neighborhoods near the North End of Hartford have a relatively high energy burden. Furthermore, when designing future energy plans and policy suggestions, this high Energy Burden and potential energy poverty of a single race should be concerned.

Health Impact

Respiratory illnesses are some of the diseases that are exacerbated under too cold or too hot conditions. We see the high asthma rate at Hartford contrasting to the peripheral regions. These high rates can be connected to inefficient and sub-serviced heating equipment.

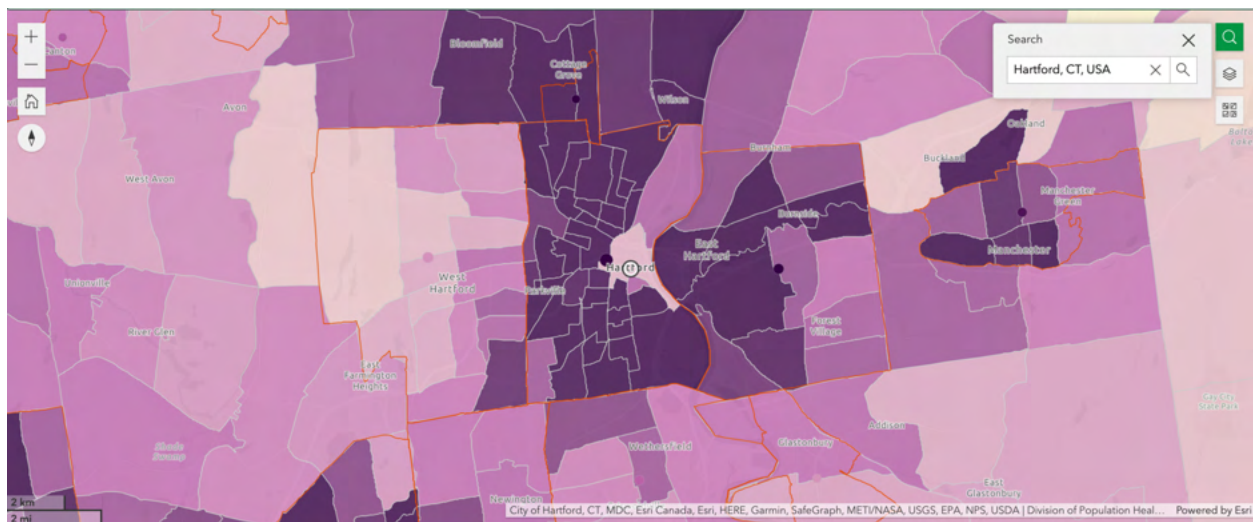


Figure 9. Asthma rate in Hartford, CT, USA²

² Image taken from the CDC 500 Cities Data website

<https://experience.arcgis.com/experience/22c7182a162d45788dd52a2362f8ed65> on Dec 6,2021

Community Photographers Tackle Energy Burden in Hartford's Upper Albany

PhotoVoice is a community-based participatory research methodology in which community members respond to research questions with photographic images taken by themselves (Wang & Burris, 1997). For this project, we recruited four community photographers. Two were emerging photographers raised, born, and well connected to Hartford, and the other two were amateur photographers, residents of the Afro-Caribbean neighborhood of Upper Albany in North Hartford. Recruitment was made through local activists and sisters Shanelle, Shenice Morris, and Sierra Club referrals. Participants received \$100 and an energy-saving kit in compensation for their work.

Photographers responded to the prompt question: How do high costs of electric and gas bills affect your daily life or the life of your community? After meeting with participants and setting up common grounds for the project, we had a group session with three of the four photographers two weeks later. With the other photographer, one research team member met through video call after failing to meet twice due to acts of lethal violence in Upper Albany. While trying to arrange the meetings, the participant already in PhotoVoice “mode” shared with one research team member the following photographs and text messages.

“Somebody got shot and they got my street blocked off. I can’t go home”

“Yes, I just pulled up and they won’t let me in”

Terry



Figure 10. Police presence after a shooting in Upper Albay, Terry Starks, 2021

“Look at this mess!”

Terry



Figure 11. Police presence after a shooting in Upper Albay, Terry Starks, 2021

“There is a lot of violence in this neighborhood. In 2019 somebody shot one kid I knew in the head when he was walking home. In 2009 somebody shot another kid I knew with an AR15. Ugh, I am so tired of living in this neighborhood”

Terry

We decided to include these images and text messages from Terry to highlight how other epidemics such as gun violence overlap with energy burden in Hartford and Upper Albany. These images capture daily life in impoverished immigrant neighborhood in a post-industrial city where over policing and gun violence are daily life burdens.

Now, turning back the attention to the group session, three photographers, after viewing all the images presented, clustered the universe of photographs under these five topics, presented here in hierarchical order: sacrifice, lack of, infrastructure/policy, temperature, and interconnectedness.

Sacrifice was the most robust category and people explained that in dealing with energy burden sacrifices to reach minimum levels of comfort were necessary. They wanted to call attention not only to the number of people affected by energy but wanted to highlight how people are affected by it.

Lack of emerged as a category to emphasize how energy burden revealed the vivid lack of care, empathy, support, and infrastructure experienced by photographers and their communities. One participant said that for example, Upper Albany is notorious for the lack of flowing of abundance.

Infrastructure/policy was a category that photographers created to denote systemic failures perpetrated by energy companies, policies, and landowners, that expose people to detrimental living conditions.

Temperature was a category used to talk about the embodied experience of heat in the summer or cold in the winter in people's homes and bodies.

Interconnectedness tackled the feeling of shared experiences, but tied together through a negative experience, or as one of the photographers put it, it is more like "trauma bonding."

Below the reader will find the images grouped by author because we wanted to respect the peculiarities of the aesthetics and gaze that each photographer brought to this project. However, we would like to invite the reader to keep in mind the five categories that photographers created to organize the universe of images they captured.

Joanna

Joanna was an Upper Albany resident and was engaged with the project since day one, she said that after the first conversation she had with a member of the research team she searched on the internet what energy burden was and found out that she was experiencing high energy burden. Joanna, as many other Upper Albany residents has gone through days and sometimes even months with no heating because of bad infrastructure in the building or because she got behind bills and had to wait until November 15th when heating must be reinstalled by law.

"This was during the time that our boiler was not actually working. And so, I just get the underneath my blanket, I get, you know, my sweater on and everything like that. And you know, cats, they don't really care about the weather much. But when they get cold, they'll all just start gathering. So, this was me with all four of them laying on me and we're just all keeping each other warm." Joanna



Figure 12. My cats warming up by my feet, Joanna, 2021.

“So, usually there'll be like one or two months out of the year, that I'll skip my gas and electric bills just to seem to do something else that I need the money for something else. And I just know that you know, I have that backup thing, because there's the... I forgot what it's called. But it's uh, it's specifically if you're like below a certain income level, they can't turn off your gas and electric, they have to turn it back on November 15. And then they have to keep it on until I think May. Or either April or May something like that.” Joanna

“People who will go a few months without paying the gas bill, because they know that in November has to be turned back on. So, I've had my gas bill turned off several times, like around September or October, because I just couldn't keep spending the money on the gas bill. And then you just know, November 15, the gas company must come and turn back on anyway. And I know I'm not the only one who's done that before I try not to now, because now I have the whole you know, same rate all year around. But at one point, I had my electric turned off, at one point I had my gas turned off and you know, and I would go to the YMCA I live nearby and take showers and stuff like that.” Joanna

Like many other Hartford residents experiencing energy burden, Joanna knew and employed techniques that allowed her to reduce her energy consumption in her home. Like many other residents and experts we talked to, she said they did not need advice or tips on reducing their energy bills, which companies seemed to focus on. Over and over, we heard people know how to save energy and that the key problem is not on the consumer's side. Paraphrasing what senior electricity sector analyst, Brendan Pierpoint said to us in an interview, those energy-saving tips provided by companies tend to put the energy burden responsibility on consumers while blurring companies and structural policy's fault into the creation of energy burden.

"When I sleep at night, I always turn the heat all the way down. And so, one of my cats likes to sleep between my feet. So, she comes in and gets on top my legs like from knees down, and she keeps my legs warm. And so, if she's not there and I'm getting cold allows us color over until I get over here and she'll comply by me keeping on for the rest of the night. So um, and I would just like taking pictures of my cats anyway"

"I can't sit in a dark room, even if I am watching TV. But I know a lot of people who will turn off every light because they don't want to have a high light bill. So, I just personally have made the choice to use the energy saving bulbs and keep the light on when I'm watching TV. But um, I know some people do it. Like if you're in the even if you're in the room, you just turn off the light." Joanna



Figure 13. Adjusting the thermostat. Joanna, 2021

When Joanna shared this image of her under the blankets, she said that probably people would not understand what the image was about. However, in the debrief session, Sir Gastan, one of the professional photographers, said that when Joanna showed the image, he immediately “got it,” because his photographic essays tackled the issue of energy burden from the same angle. And he added that their images were a sample of the interconnectedness that energy burden brought into their lives.



Figure 14. Under the covers. Joanna, 2021

"I don't mind bundling up. The thing I don't like though is like, if I have to get up, cook or get something from the refrigerator, or use the bathroom and then it's like really, really, really cold. I you know, so. But I don't really mind bundling up. It's kind of cozy anyways. It would be nice to be able to cook and not be freezing my butt off. Yeah." Joanna

"And this is just another thing, you know, like you were asking about putting on extra stuff, like sometimes I'll put on a hat if I'm getting really cold. So, in this picture, I have like, my dress my house dress on, a pair of pants on, my sweater, the hat underneath the covers, is it's easier to do it that way than to sit there and have to pay, you know a huge bill. So, I'll be in front of the TV and just keep myself under multiple layers and then even like sometimes I'd love to read, I don't really read that much when it's really cold because I don't want to take my hand out to the cold out from under the blanket to read my book. So, I'm watching a lot more TV than reading books." Joanna

“You know, I was trying to, you know, get a picture of showing this dark in the hallway that had all the lights off. And that, you know, I was turning down the heat for the night, you can't really tell because I had to use the flash and I'm using my phone to take pictures. You can't really tell I tried to take a picture like down the hallway and show the hallway was dark. But that didn't quite work. So this is the only thing I was able to get. It's just me just turning down. So you can see it's like from right, at the point, it was at around 68. And then I was totally down for the night.”

Joanna

This research project was conducted during the fall and winter of 2021; thus, it has heavy component on how people experience energy burden in the cold months. However, a member of the team asked Joanna about how she experienced energy burden during the hot months and through her response we get a glimpse of it.

“During the summer like I used to use my air conditioner just all the time during the summer, because I was uncomfortable being hot. But then I realized like my minute, I moved to this apartment two years ago. And this apartment, first of all, it's better insulated, and there's better. It's also better ventilation. And then I kind of also discovered that my there certain hours of the day when there's no sun on the backboard. So it's like 10 degrees cooler on the porch than anywhere else. So I spend most of my day that I'm not out running errands and stuff I spend on the back porch, because it's just a lot cooler. And I'm not sitting there using the energy, you know, so and I don't really watch TV all that March. So I'll just be on the back porch either reading a book or playing a game or something like that. And just staying cool that way instead of you know, having been in the air conditioning room because I try to use the air conditioning just at night.” Joanna

Bizzie

Bizzie³ is a Hartford born and raised young emerging photographer. Her photographic essay, done in black and white explores energy burden in Upper Albany from a public perspective. She navigates the streets of the neighborhood pointing the camera to building's facades, sidewalks, store fronts, and bus stops to show how gentrification, disinvestment, and poverty intermingle with energy burden in very visible ways.

Bizzie guided us through Upper Albany, a neighborhood she knows very well. Her knowledge duels from housing policies to family anecdotes. From the four photographers she is the one that decided to take the camera to the streets, which for the reader is an opportunity to take a direct look at Upper Albany from a pedestrian perspective.

Bizzie started the photo sharing session speaking about an image that is not present in her photographic essay which is a common image in the cold winters in Upper Albany.

"I would have liked to have found a photograph of someone who had like the black bags of black plastic over their windows. But I didn't get a chance to find anyone who had that yet. It is like an insulation thing. When you like if you have a crack window or if like the window itself is not insulated properly, you'll put like, you'll take a garbage bag, cut it like into the square and tape it onto the window so that no air is getting through your windows. They do it in cars, you know. But they do it they do it at apartments too kind of." Bizzie

Bizzie Ruth a.k.a Madyson Frame, is a young multifaceted blk femme artist from Hartford, Connecticut. She began her artistry as a spoken word poet at the age of 13 performing at countless events. As she entered her last two years of high school she found a love for digital art in the forms of filmmaking and photography as a means of taking her poetry and putting imagery to it. She recently curated her first gallery titled, "A BLK WRLD" in November of 2020 where she exhibited photographs along with poetry detailing the beauty of blk love, blk art and blk kulture. Bizzie is also the Founder and Director of a new art curation company by the name of The Photobooth, LLC.

To find out more or connect with Bizzie herself you can follow her on instagram or tap into her companies network written below:

IG: [too.bizzie](#)

Email: bizzieruth@gmail.com

Website: www.thephotoboothllc.com

After sharing this, Bizzie shared with us this powerful image in which energy burden appears depicted in a different way: electricity bad infrastructure is as a hazard.



Figure 15. Electric wire exposed. Bizzie, 2021

“But right here like in the middle of the frame, there's literally exposed wires on Vine Street, exposed wires on the street and seeing this for me it's like we're paying all this money for electric bills, but our grids are barely like stable, barely up to par.” Bizzie

“I have a couple pictures of the of the of these exposed wires but literally like it's duct taped up here, not duct tape, but like it's taped up here with some red tape, trying to hold it together. So it's not like falling apart. I'm just like, wow, why is nobody called, you know, the city to talk to do this? Like, why is this not being addressed? Is this something you've seen before throughout Hartford happens; it doesn't happen I will say happens often. But very often when things like this happen, or like say like when the wires freeze over in the wintertime, this area is like one of the last areas to be taken care of. And this is like a very dangerous thing to have out in public.” Bizzie



Figure 16. Electric wire exposed. Bizzie, 2021

Bizzie also looked at decaying buildings in the neighborhood that often are semi-occupied to explain how “slum lords,” a phrase that repeatedly appeared during this research project, let buildings deteriorate while waiting for market value prices to rise under a growing process of gentrification. Current tenants, in the meantime, had to deal with falling apart buildings without

investment creating perfect niches to exacerbate energy burden situations such as higher gas and electric bills due to bad weatherization, inefficient furnaces, and so on.

Landlords also emerged as obstacles for tenants to obtain benefits to address situations related to energy burden. Many participants said even though they were eligible to receive support from different organizations it was common these had to be approved by landlords who usually preferred to leave things unresolved and let tenants deal with high gas and electric bills.

“Yeah, and like my old building, the electric company sent us something or CRT or something sent us something saying that they would you upgrade the apartment for energy efficiency. But in order to have it done, I had to get my landlord to sign the paperwork. And when I brought the paperwork to my landlord, he had these other ideas that some company that his wife was attached to was going to do this work instead. Never happened and I lived there for eight years. And this was the first year that I asked him about it. So I never got the paperwork signed that was required to be signed before they could energy put energy efficient stuff stuff in my apartment, because the landlord didn't want to do it. And you know as far as I'm concerned if I'm the one paying the gas electric bill, I should be able to have my apartment upgraded without permission from the landlord. Yeah, especially since it's gonna benefit him in the long run. Right, that's an improvement his building.” Bizzie



Figure 17. Semi abandoned building in Upper Albany, Bizzie, 2021

Upper Albany in North Hartford is an Afro-Caribbean enclave with enormous inequality which due to its closeness to Hartford's downtown is calling the attention of local and foreign capital willing to invest in real estate and redevelopment. The quantitative and qualitative data we collected in this research project clearly shows that there is a process of gentrification happening in Upper Albany, which is magnifying experiences of energy burden in this neighborhood and other areas of Hartford. Bizzie told us currently various New York City conglomerates are buying whole buildings in the Upper Albany area.



Figure 18. Semi-abandoned building in Upper Albany, Bizzie, 2021

“They just let them finish. It's almost like a tree, you know, you go to you let it grow. Let it grow, you let it grow and grow until it dies itself. Or you let it Oh, you ate it in a dying, which we did, which is what they usually do with these apartments. And once it dies, you can cut it down and start a new one. And that's kind of what they do with these apartments. They just let them go like people who can't afford people can't afford their rent, who can't afford their bills, they want to build something just like them. And because of the neighborhood, they can't find somebody else

to move in. And these buildings, eventually just the landlord let go of them. They end up just becoming foreclosed properties and getting turned over to banks and back to the city and see what they don't do anything with them for years” Bizzie

Finally, Bizzie touched on another aspect which deals with how common buildings that offer utilities included not do so with gas often because their heating systems use gas with old machinery that added to bad weatherization leads to tenants having to pay huge amounts of money in gas bills.

“About the age of some of these properties. A lot of these build buildings still have gas heating, instead of electric and even wants to do electric they're still expensive bills. Because there's so many people living in that building. It's I feel like it's almost a scam. The photo we said before, like it's almost a scam when they say like oh, electricity is included. Yeah, but they don't tell you that. Use don't tell you to use your electric your electricity wisely. Like even if it's not gas heating it or if it's electric heating, depending on how much you use it to your house, your electrical soon to be a lot higher than somebody.” Bizzie



Figure 19. Electric meters, Bizzie, 2021



Figure 20. Electric meters, Bizzie, 2021

Just to reaffirm what you've been saying one of the biggest things we've seen is that there's a huge sort of just missing piece with policy dedicated to renters. Most of the policies are subsidies for people retrofitting their homes with more in energy efficient products or insulation stuff. But landlords will never fall in and actually do those things. And so because it's the renters who are suffering, there's no incentive for landlords to then do anything. And so yeah, like renters are one of the most marginalized groups that are impacted by energy burdens, and there's really no help going to them.” Bizzie

“And one thing that was crazy, was we had an interview like a few weeks ago with this woman who was like a head policy executive at a company. And she was talking about how she was able to receive some of the benefits and the subsidies to insulate her home. And she didn't have to pay for anything. And it was great. And while like it is really great that she got to do that. It's also like there's a huge disconnect. Well, so many renters are missing all of it. And then this woman who's working a very prestigious job and is doing so much good for the community. I will say she's doing like crazy good work. But just like it's just a huge disconnect between two different people and two different groups that are receiving benefits. And those that aren't.”

Sir Gastan

Sir Gastan⁴ is an emerging artist from Hartford. His photographic work focuses a lot on the human body which is reflected in the photographic essay he created for this project in which he makes self-portraits in which he reflects about his own experiences with energy burden. This photo essay is aesthetically beautiful and very intimate and speaks to that connectedness that exists among people experiencing energy burden in the winter through the act of layering up.

“I pull these photos together because from my own experience layering up when it's been cold. I moved into my first apartment, it's almost going to be a year at the end of this month and where I live the utilities are separate. And so, like this project is both a mixture of the energy piece of it but I think also just being a young person and not listening to my mom when she explained that moving into a place where your utilities are not included is probably not the best decision.” Sir Gastan

⁴ Growing up Sir spent most of his childhood at his great- grandmother's house in Sheldon Oaks. Surrounded by dozens of film stocks all over the house; paired with her archives of family photos, this is where his passion for photography was conceived. So perhaps you can say, it's in his DNA to be a photo maker. As a portrait photographer Sir's photos reflect his visions, feelings, and experiences. In addition to photography Sir spends his time working on Criminal Justice Reform with the Katal Center and tending to his plants.



Figure 21. Layering up. Sir Gastan, 2021



Figure 22. Layering up, Sir Gastan, 2021

“I live in particular beautiful space but because of it having large windows it brings in either a lot of heat or a lot of cold” Sir Gastan



Figure 23. Layering up, Sir Gastan, 2021



Figure 24. Layering up, Sir Gastan, 2021



Figure 25. Layering up, Sir Gastan, 2021

“But three layers in a sense, it's kind of like what I have typically like under shirt, a hoodie that I'm wearing, and then maybe something like to have over” Sir Gastan

Terry

Terry is an Upper Albany resident. She leads a drummer's band at a local school and is very involved with the youth in the neighborhood. Terry took photographs with her cell phone while she went through her daily routines. Through her gaze, the reader can grasp quotidian aspects of her life at school, in her car, or in the Upper Albany surroundings. Terry's reflections around the images and energy burden were collected in an individual interview via video call; thus, her narratives are not in dialogue with the work of the other three photographers. Her insight on the effects of energy burden in her community is sophisticated and relates deeply with her work with youth.

The first image she shared dealt with an aspect that the literature on energy burden mentions but did not tackle in this report, transportation. She talked about how the lack of well-stocked food stores in Upper Albany obliges residents of this neighborhood to drive several miles to get to one.



Figure 26. Hartford's traffic, Terry, 2021.

“We don't have no real grocery stores that are selling like real healthy products. Food in the stores here is not healthy. So, you have to drive, at least for 15 minutes, which creates more pollution. And gas today is more expensive. All of a sudden, the [gas] prices just jump. It used to cost me \$75 to fill my tank up, now it's over \$100 to fill my tank up.” Terry

The second image Terry shared showed an overcrowded classroom. When asked how the image spoke to the matter of energy burden, she said that these kids were “staked on top of each other.” And how that sparks violence. She said schools were very violent because there was not enough space to breathe. Later she reflected on how poverty creates immobility, obliging people to stay where they were born.



Figure 27. A crowded classroom, Terry, 2021

“A lot of people from Hartford just stay in Hartford, they don't move around. A lot of people can't afford to go anywhere, because they are spending all the money on bills, like the light bill and the gas bill. And gas itself, you know, just to survive. Everybody is on survival mode.” Terry

The last image Terry shared is a self-portrait that she has labeled “burning and burn out.” With it she depicts how stressed she is with the violence she experiences every day in the neighborhood and the costs of her bills which account to over \$300 each month. The burden is too much, she said.



Figure 28. Burning and burn out, Terry, 2021

Terry closed the session reflecting on how the system is not supportive of people before they fall into critical stages. Which speaks to how the system in a perverse mode only provides support when people have fallen out of the safety net.

“They won't help you unless your bill is behind you know, like Why do my bill has to be behind in order for them to help me like catch up. They need to be proactive instead of reactive. The system is all jacked up to, because the system is not proactive it only you know it is only geared to help the most vulnerable people, so you need to be desperate to be able to get some help”

Terry

Voices from Experts

The following are excerpts of interviews we had with experts.

Gannon Long

Gannon Long is a policy and public affairs director at operation fuel. We learned a lot during this interview about big corporations and their interactions with Hartford citizens.

“Don’t use a straw, save plastic. It’s like okay I’m one person, I go out to eat once a week, I use one plastic straw, that’s not great, but I’m certainly no chemical company that’s.. you know.. me and my straw aren’t the mounds of plastic in the ocean.”

Long said, referring to the emphasis that is placed on the individual to fix a systemic problem that is at the fault of a bigger structure and can’t be placed on the individual. Like with energy burden, can’t have the individual do something to fix it, because that doesn’t fix the problem of why it is occurring.

Amy McLean

Amy McLean is a senior policy advocate and Connecticut director at Acadia Center. We talked about the energy burden in Connecticut, what it is, and in her opinion why it occurs.

“Presently there is about 23% of the homes that are eligible for home assessment services, but don’t get them because of health and safety barriers.”

McLean is referring to the fact that energy services won’t come in to fix your heater, for example, if your home has mold in it. This means that apartments or homes that had preexisting bad conditions can’t be cared for because they are deemed “unsafe”. Money for helping the energy burden can’t even be used in homes.

Diamond Spratling

Diamond Spratling is a GEM project manager at Greenlink Analytics. Greenlink Analytics takes data from around the US on energy burden and displays it in maps showing data from power outages, to shut offs, to just rates of energy burden in general across the nation.

“I think one thing that I noticed is that it can’t just be a policy or an initiative to improve weatherization in our homes, and things like that is much deeper than that. It’s about the income that we see the differences in the income level, but also the age of our house is the condition that the houses are in.”

When Spratling was asked about the policy side of energy burden, and different challenges they have run into with that, this is what they said. They are mentioning a crucial point about the age of the homes and how policies to fix energy burden are not applicable to all homes and not able to equally solve the energy burden issues. For example, one house could have an air conditioner where another house might not have a place in the windowsill to put it in. Slight differences like this end up making a world of a difference in the grand scheme of energy burden.

Niel Beup

Neil Beup is the head of global government affairs at Linde. Neil told us what energy burden meant to him and we discussed the lack of care the government seemed to have towards making programs for energy burden. Additionally, he talked about some of the programs that Linde is doing to work towards addressing energy burden.

“The landlord doesn’t really care because they are not the one paying the energy bill, and the tenant doesn’t want to invest the money into a structure they don’t own, and so one of the challenges you have there is that a lot of our energy burden programs require some resource from the recipient of the funds... I mean our low-income recipients require a little less of that.”

Beup is discussing the conflict between property owner (landlord) and tenant. The property owner does not want to put money into the energy efficiency of an apartment, because it does not really affect them, they still have people living there and are making an income. And the tenant does not want to put money into helping the apartment because they do not own it and may also

not have the funds to keep it up. Also, they may not be allowed to add anything to the apartment heating wise because it is not their property.

Michael Uhl

Michael Uhl is the president of System Smart. System Smart is a private tech contractor company. This company serves the whole state in a program called “My Heart My Home” which serves to landlords. This was the first take we really got from the landlord side, rather than the tenant side.

“Specific to Hartford, we were paying attention to it, not so much as at the macro scale, but at the individual level. And so, in our role, we work directly with the customer to understand their options, and most of those are income eligible.”

Uhl talks about how their company focuses on the individual. It is interesting because most of the other companies do not, but instead talk about the landlord's perspective and what they do. Furthermore, the company works with individuals to see how they can address their own energy burden. Some advice includes switching from propane to an electrified version, and other advice that might decrease their own energy burden. This company works with the individual, but not on a larger scale.

DEEP (Dino, Kate, and Ashley)

DEEP or Connecticut Department of Energy and Environmental Protection. They talked to us about their programs and government programs in general that work to address energy burden, and the complicity behind them.

“If I got the point that I was going to add there but let me get into the barriers to accessing energy assistance programs, I would say that the largest barrier to accessing the programs is that the scheme, the framework is pretty complicated.”

The framework for getting into the programs that address energy burden is complicated. When we talked to one participant, Joanna, they talked about how the companies want to know every

transaction you make, Cash App, grocery store, everything, to see if you really do need help. During this time, Joanna explained that a lot of people tell others to not Cash App them so that companies don't see this and call it a "second source of income" and then not help them.

Kamora Herrington

Kamora Herrington runs an organization called Kamora's Cultural Corner. They work with the community to identify problems that are occurring. Herrington's goal is not to fix the problem, but to state it clearly so that it is known.

" Ways to support them in addressing energy inequity and all these ways, right? But none of this comes down to the person who's living in that place. None of it comes down to the renter. So Hartford, I think we're ninety something percent renters. "

Herrington talks about a problem that we have discussed with other experts throughout interviews. The energy burden seems to boil down to the blame that the system places on the individual. Even though the phenomenon of energy burden is systematic, every policy always addresses what an individual should do rather than what can be shifted in the system to help energy burden, and positively affect the individual.

How can Hartford address energy burden?

One avenue for the city of Hartford to address the present energy burden residents experience is through making current programs more effective to provide relief to low-income individuals. An issue with current policies was brought to our attention from interviews with participants during the onboarding process. One participant stated that they have tried to enroll in state-funded programs to assist with high energy costs multiple times, but experienced issues with collecting all the necessary documentation. They felt that the numerous required documentations, as well as the invasive nature of some questions, created additional barriers to enrollment. To address this the city can work to provide residents with resources and assistance services to complete applications. This would help to guide applicants through the process of checking their eligibility and entering the registration process. Additionally reducing the number of required documents and shortening the registration process would assist in making programs more equitable to those with limited time.

Another area that Hartford can address Energy Burden is to further explore how many people are impacted by energy burden. Within our study and much of the national work use a single equation to determine whether a household is experiencing energy burden. However, recent work suggests that significant populations are missed when utilizing this kind of definition, and so this issue must be addressed with multiple metrics that encapsulate how multidimensional energy burden is (C.Aghim, 2020). This can be done by posing questions without binary terms, i.e. yes/no, and tracking how factors such as location, seasonal temperature changes, residents' health, and others may affect a household's energy usage.

Looking to the future of Energy Burden and how best it can be addressed, there must be a focus on community-driven solutions. From working with individuals who experience Energy Burden, it is apparent that the community understands the problem they are facing far better than any outside parties. The key to solving this issue is likely best addressed by listening to the community's needs and their recommendations for resolutions. One solution that has come from our engagement with community leaders has been the idea of community-owned energy. In the form of local clean energy sources, this would serve the residents' needs while also allowing

them to reap additional benefits. To reach this, neighborhoods would need to invest in the transition to all-electric buildings, achieve high levels of efficiency, and establish solar projects. Working in tandem these would allow for steps towards community energy autonomy. Further, if community members do the work and own the businesses, the benefits of this approach will also build wealth in the community. Steps on the way to achieving this should include:

- assistance to address the immediate problem
- energy efficiency measures to improve comfort and lower bills
- replacement of old appliances with new, fossil-free appliances
- replacement of old space (boilers and furnaces) and hot water heating systems with new all-electric fossil-free heat pumps
- deployment of rooftop and community solar
- job training and business incubators in weatherization and clean energy areas, so that community members are hired to do the work and own the businesses doing the work.

Given the current availability of technology and similar programs, these policies can be implemented quickly when they are prioritized for areas of the state like Upper Albany. In addition, the utilities can direct programs in the neighborhood and subsidize measures that an existing program cannot fill. Utilizing these bold community-based strategies, the Energy Burden that once plagued residents can now work as a point of dramatic improvement across the entire community.

Resources for Individuals Impacted by Energy Burden

To all those impacted by high energy costs in the state of Connecticut, here is a list of resources available:

UniteCT. If in need of Emergency Assistance for electricity or rent, the UniteCT provides up to \$15,000 of payment assistance for Connecticut households financially impacted by the COVID-19. Application details and further information can be found at the program website.

<https://portal.ct.gov/DOH/DOH/Programs/UniteCT>

Connecticut Energy Assistance Program (CEAP). To anyone having trouble paying home heating bills, the Community Renewal Team can work with you to complete the Connecticut Energy Assistance Program application. The deadline for all eligible households to apply for the CT Energy Assistance Program is May 31, 2022. Further details can be found on the program website.

<https://www.crtct.org/programs/basic-needs/energy-assistance/>

Community Renewal Team (CRT). One way that energy bills can be reduced is through enrollment of the Community Renewal Team Weatherization Program, which can make a home or apartment more energy efficient. CRT Weatherization is offered to all residents of Connecticut, regardless of income level. This service is free for qualified households. Further details can be found at the program website.

<https://www.crtct.org/programs/basic-needs/weatherization-services/>

Operation Fuel. If assistance is needed to help pay utility bills, Operation Fuel provides emergency energy and utility assistance to Connecticut households facing financial crises. Types of assistance can vary between year-round energy assistance, homeless intervention and prevention, and water assistance. Program application and further details can be found on the organization's website.

<https://operationfuel.org/gethelp/>

Home Energy Solutions. The Home Energy Solutions – Income Eligible (HES – IE) program is a free in-home energy efficiency service designed to help lower energy bills by making homes more comfortable and energy-efficient. Further details can be found on the program website.

<https://www.homecomfortpractice.com/home-energy-solutions-income-eligible/>

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