EXTREME HEAT POLICY AGENDA 2022
WE ACT was started in 1988 when three fearless community leaders saw that environmental racism was rampant in their West Harlem neighborhood, and they demanded community-driven, political change. Today, the organization is considered an active and respected participant in the national Environmental Justice Movement.

WE ACT's mission is to build healthy communities by ensuring that people of color and/or low income residents participate meaningfully in the creation of sound and fair environmental health and protection policies and practices.
INTRODUCTION

Climate change is causing average global temperatures to increase. Extreme heat events provoke many adverse health impacts including dehydration, dizziness, fainting, and mortality. Due to systemic racism and pervasive inequalities, Black and Latinx communities, low-income households, and elderly people are disproportionately affected by these heat-related health outcomes. WE ACT For Environmental Justice’s Heat, Health, and Equity Initiative (HHEI) aims to protect New York City’s vulnerable populations from extreme heat. Over the next three years, the initiative’s main objectives are:

- Amend state policy so that Low Income Home Energy Assistance Program (LIHEAP) funds are used to transition New York City homes to cleaner and more efficient forms of cooling;
- Support heat bills and policy reform that address the City’s rising temperatures;
- Strengthen the City’s emergency planning during extreme heat events;
- Increase the utilization of and improve the services provided by New York City’s Cooling Center Program;
- Advocate for new City and State protocols that protect vulnerable populations from the heat;
- Increase communication with vulnerable populations to raise awareness about extreme heat and its health impacts; and
- Increase green design and renewable energy production to promote natural cooling.

Swift and robust government action is needed to proactively prepare New York City for rising temperatures and mitigate the corresponding health risks. A variety of strategies should be implemented to promote a comprehensive portfolio of approaches that emphasizes social equity, and prioritizes community participation.
New York City (NYC) is particularly susceptible to rising temperatures because its physical design characteristics amplify the urban heat island effect. Climate modeling projects that up to 75 days of the year could reach 90°F in New York City by the 2080s.[1] An average of 130 New Yorkers die from heat-related causes every year.[2] Additionally, there were approximately 644 hospitalizations or ER visits due to extreme heat exposure in 2021.[3] A 2016 Columbia University study projected that heat mortality rates in New York City will continue to rise significantly, resulting in up to 3,300 deaths annually by 2080.[4]

New York City’s struggle with inequality causes extreme heat events to disproportionately affect certain populations and neighborhoods (Table 1). For example, neighborhoods in East Harlem, Central Harlem, and the South Bronx have some of the highest scores on the heat vulnerability index, a measurement of risk to heat-related illness or death.[5] These neighborhoods also have large Black and Latinx populations. Additionally, low-income and elderly people are more susceptible to adverse health impacts related to extreme heat. Much of this inequity comes from structural and historical racism, forcing low-income and people of color in NYC to:

- live in older, poorly maintained apartment buildings;
- live in crowded apartments with intergenerational living;
- live in neighborhoods with less green space;
- live in neighborhoods with more air pollution from buildings and industrial sites; and
- stretch their resilience and their means across many hardships, such as food, rent, chronic illness, and immigration status.[6]
Heat-related health complications are exacerbated by other health conditions and socioeconomic indicators of vulnerability, including age, race, income, and employment. These characteristics can overlap to create cumulative impacts that compound health risks.

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<td>People with chronic illnesses, such as cardiovascular and respiratory diseases, are more susceptible to heat stress and health complications on hot days [7].</td>
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<td>Elderly people are more prone to heat illness due to increased isolation and pre-existing health challenges [8].</td>
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<td>Children with pre-existing health conditions, such as asthma, are also at risk during heat events. Like the elderly, children may spend more time indoors, heightening exposure [9].</td>
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<td>People of color are more likely to experience energy insecurity. For example, in Washington Heights, energy insecure households are predominately Black/African American and Latinx [10].</td>
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<td>50 percent of heat-related deaths in New York City over ten years were Black/African American people [11].</td>
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<td>Low-income families are more likely to be burdened by energy insecurity [12].</td>
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<td>People experiencing homelessness have increased exposure to hot temperatures, struggle to access healthcare, and are often stigmatized making it difficult to gain admission to cooling centers [13].</td>
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<td>Certain jobs require work to be done in extreme temperature conditions that expose employees to environmental hazards that increase risk [14]. This is especially true for essential workers during the COVID-19 pandemic.</td>
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Figure 1. In NYC, Black people die of heat-related illness at a disproportionately high rate. Because of this, neighborhoods with more Black residents are more greatly impacted by extreme heat. These disparities stem from structural racism, which includes neighborhood disinvestment, racist housing policies, fewer job opportunities and lower pay, and less access to high-quality education and health care.

Figure 2. The Heat Vulnerability Index (HVI) shows neighborhoods whose residents are more at risk for dying during and immediately following extreme heat. It uses a statistical model to summarize the most important social and environmental factors that contribute to neighborhood heat risk. The factors included in the HVI are surface temperature, green space, access to home air conditioning, and the percentage of residents who are low-income or non-Latinx Black.
85 percent of heat stroke deaths in NYC happen due to heat exposure at home.[15] Unfortunately, exorbitant utility bills make the cost of owning and operating an air conditioner very challenging. Energy costs are especially burdensome during the warm season. Utility bills can increase by up to 20 to 30 percent due to air conditioning use in the summer.[16] Many low-income households are forced to forego home cooling due to cost. In fact, one study conducted in NYC found that 15 percent of participants reported never or infrequently using their air conditioners and 24 percent of respondents specifically said they chose not to use their air conditioning because of the cost.[17] Governor Hochul recently announced an expansion of the program by allocating $15 million to expand eligibility to reach more low-income customers.[18] However, there is still much that needs to be done to improve the program.
Recommendation 1: Allocate more funding to the LIHEAP program to subsidize summer utility bills.

The LIHEAP program allocates the majority of its funding to heating services. Just 4 percent of its budget is apportioned to cooling needs.[19] Summers are getting longer and hotter in NYC, and with massive energy burden rates in New York combined with increasing utility rates, many low-income households will suffer in the heat to avoid the cost of running an air conditioner (A/C). In order to adapt to the future of climate change, more financial capital is needed to increase the use of cooling technologies in NYC homes by expanding LIHEAP’s Cooling Assistance Program. Currently, LIHEAP is funded at its usual level of around $340 million for the State. This funding is only enough to provide eligible residents with an air conditioner (A/C) worth up to $800 in value every five years. This is not helpful if the residents cannot afford to run the A/C unit. The State must immediately supplement the federal funding for the program in order to subsidize the cost of electricity for running air conditioners in the summer months.

Recommendation 2: Expand LIHEAP program to finance energy efficiency retrofits.

Currently, New York State LIHEAP cooling assistance only provides funding for people to get an air conditioner or a fan. A/C use increases home energy bills, often making utility bills unaffordable for many low-income New Yorkers. Long-term fixes that increase energy efficiency in all homes are needed to reduce energy bills and fossil fuel use. Weatherization improvements can reduce household energy costs by 25% for low-income households.[20] LIHEAP must expand its program to subsidize the cost of purchasing and installing efficient heating and cooling technologies such as heat pumps.

Recommendation 3: Increase the number of staff at OTDA assigned to LIHEAP

Currently there are only two staff members at OTDA that are working full-time on administering LIHEAP for the entire state. In order to successfully expand LIHEAP, particularly the Cooling Assistance Program to subsidize electricity bill costs, Governor Hochul must allocate funding to hire more staff to work full-time on LIHEAP.
Several bills have been introduced by New York City Council Members. These should be passed and signed into law by the Mayor.

**Recommendation 1: Support legislation to codify cooling centers in NYC.**

WE ACT worked with New York City Council to develop Introduction 1563-2019. The proposed legislation would require that the City:

- codify the City’s cooling center program;
- set a minimum number of centers based on where heat vulnerable populations reside;
- institute a process for engaging local communities through a public education campaign to raise awareness about cooling infrastructure; and
- require that NYC Department of Health and Mental Hygiene (DOHMH) conduct a survey of program utilization and report it annually to the Mayor and the Council.[21]

WE ACT would like to see this bill re-introduced this session with the following amendments to strengthen the bill:

- allocate a budget specifically for cooling centers through the New York City Emergency Management (NYCEM)
- require locations that receive funding to serve as a cooling center to be open for every heat advisory.
- require locations that receive funding to serve as a cooling centers to put up appropriate signage and train staff in how to identify heat related illness
- have designated cooling centers that have extended, evening hours
Recommendation 2: Introduce bills that survey the level of green roof and solar roof penetration in environmental justice and heat vulnerable communities.

The New York City Council should introduce bills that promote research, design, and implementation of solar roofs. A study conducted by researchers at UC San Diego Jacobs School of Engineering concluded that solar panels could reduce the amount of heat reaching roofs by up to 38 percent.[22] Likewise, Stuart Gaffin, a climatologist at Columbia University's Center for Climate Systems Research, demonstrated that green roofs can cool near-surface air temperatures by an average of 16.4 °C per unit area. Thus, increasing solar serves as both an adaptation and mitigation strategy by reducing heat absorption and greenhouse gas emissions.[23]

Currently, during this session of New York City Council, there have been several bills that have been introduced relating to green and solar roofs:

- **Introduction 0102-2022**: Requiring the department of environmental protection to post a map of green roofs online. This bill would require the Department of Environmental Protection to post on its website a map of all green roofs in the city. The map would also include some information about each green roof, including the type of building, the area of the roof and the area covered by the green roof system, the capacity of the green roof to absorb water and the function or functions of the green roof.[24]
• **Introduction 0239-2022**: Education and outreach regarding solar and green roof requirements. This bill would require the Department of Buildings (DOB) to conduct targeted outreach every five years to inform building owners about the solar and green roof requirements mandated by Local Law 92 of 2019 and Local Law 94 of 2019. DOB would also be required to post notices and educational materials on the department’s website and submit a report describing the methods of targeted outreach employed by the DOB every five years.[25]

• **Introduction 0233-2022**: Requiring the DOE to conduct a study on the feasibility of installing green roofs on schools. This bill would require the New York City Department of Education to conduct a study, in consultation with the School Construction Authority, the New York City Department of Environmental Protection, and the New York City Department of Buildings, on the feasibility of installing green roofs on at least two schools in each community school district.[26]
Increased energy demand during extreme heat events can result in power outages. During the summer, indoor temperatures can surpass outdoor temperatures, especially for households without air conditioners and during blackout and brownout periods. This increases the risk of heat illness and poses an additional challenge to individuals that rely on electronic medical devices.[27] Low-income neighborhoods are disproportionately impacted by power outages. When Con-Ed shut off service to 33,000 customers in 2019 to protect the company's equipment, two of the neighborhoods chosen were Canarsie and Flatlands. Both are majority-black (approximately 59 percent) and rank 4 out of 5 on the City's heat vulnerability index.[28]

Recommendation 1: Preemptively set minimum temperatures for larger buildings to reduce energy loads.

In the summer of 2019 the City required owners and operators of large office buildings and department stores to set their thermostats to 78 degrees to conserve energy. This executive order was done in response to massive energy use straining the City's energy supply. Mayor Adams should preemptively institute this simple energy conservation method. The minimum temperature set for large offices and some commercial buildings should be increased to 78 degrees for all summer months, especially for those that are currently under capacity due to the COVID-19 pandemic, to decrease strain on energy infrastructure during extreme heat events.
Recommendation 2: Establish a maximum indoor temperature threshold for facilities that house heat vulnerable populations.

The State should require that facilities that support vulnerable populations, such as domestic violence and homeless shelters, senior citizen housing, youth and senior centers, public libraries, and carceral facilities, set a health-based maximum indoor temperature threshold. This threshold should be consistent with what is established by Medicaid.

Recommendation 3: Securing electricity for the most vulnerable customers.

Con Edison must play an active role in protecting vulnerable people in high heat vulnerable neighborhoods by prioritizing equity measures to ensure that reliable and affordable electricity is accessible to its most vulnerable customers at all times.

Recommendation 4: Improve the delivery of portable generators.

Emergency energy technology, such as generators, are especially important during power outages for people with chronic illnesses that require electricity for medical purposes. Locating these individuals and coordinating the distribution of generators entails regularly collecting data and communicating with eligible recipients about their needs.
Recommendation 5: Support heat vulnerable communities in participatory visioning processes with Community Boards to develop plans for resilience to extreme heat.

WE ACT prioritizes engagement with community members to ensure that policy recommendations reflect their interests and needs. Since 2019, WE ACT’s HHEI has been working with NYC residents to understand the nexus of extreme heat and health in vulnerable communities.

Recommendation 6: Develop community-led neighborhood-specific heat action plans to protect vulnerable populations during extreme heat events.

The City must work with neighborhoods to create heat action plans. Community boards and local community-based organizations (CBOs) can be engaged to lead the work. It is vital for the City to provide a platform for community members, especially vulnerable populations that are most impacted by extreme heat, to actively participate in developing plans to mitigate and respond to rising temperatures. This community-involved effort will not only result in better plans, but it will increase awareness and risk perception of extreme heat amongst vulnerable communities.
OBJECTIVE 4: ENCOURAGE THE USE OF AND IMPROVE THE AMENITIES OFFERED BY COOLING CENTERS.

During the summers of 2019 and 2021 WE ACT conducted an audit of NYC’s cooling centers to evaluate their effectiveness and recommend improvements. The main finding revealed that:

- Cooling center utilization is low. People typically only seek out cooling centers when they are planning to visit the site for other purposes. Schools that were opened as cooling centers had an especially low turnout.
- Around 9 percent of listed cooling centers were not open and functioning. [29]
- Just 16 percent of cooling centers had appropriate signage to direct people to the center’s location. [30]
- Only 28 percent of staff were trained to identify signs of heat related illness. [31]
- The NYC Cooling Center Finder is only operational during extreme heat events.

Recommendation 1: Develop and strengthen neighborhood-specific communication plans that promote the use of cooling centers.

Advertisement of cooling centers has not proved successful in the past. The City’s heat plan needs to incorporate a communication strategy so that community members are familiar with the purpose and locations of cooling centers. More outreach with information about heat risks and safety is needed to promote cooling centers. All promotion material should be produced in multiple languages. The City should not rely exclusively on NotifyNYC text messages to alert community members of heat advisories. Despite trends towards a digital format, one third of all households in the city do not have access to the internet, with many of those households concentrated in Upper Manhattan, South Bronx, and Central Brooklyn. [32] Thus, outreach efforts should include physical signage in NYCHA buildings and on transportation services. People are more likely to trust information that comes from a familiar source. All community engagement should therefore be coordinated with local organizations.
Recommendation 2: Improve cooling center services to create a safer and more enjoyable environment.

Cooling centers should provide extended and overnight hours. Mandatory training should be provided so that all cooling center personnel can identify heat stress and COVID-19 symptoms. Additionally, all cooling centers should offer free water and be located near establishments that sell food. To increase interest, cooling centers should include entertainment options, such as internet, books, and recreational activities. Safe transportation should be available so that visitors can arrive without exposing themselves to COVID-19 or the heat.

Recommendation 3: Install and upgrade cooling systems in public school buildings throughout the City.

Governor Hochul announced in her State of the State a “$59 Million “Clean Green Schools” Initiative to Improve Air Quality and Reduce Carbon Emissions in Pre-K-12 Schools.” Through this program, the City must install and upgrade cooling systems in schools, prioritizing public schools that are in high heat vulnerable neighborhoods, and that are currently burning fuel oil. Not only will better thermal comfort improve academic and health outcomes for children, the program will provide employment opportunities to local residents.
Recommendation 1: Provide additional funding for NYCHA to protect vulnerable residents and improve building efficiency.

Over half of the public housing residents reside in the City’s most heat-vulnerable neighborhoods. [33] NYCHA residents are especially vulnerable to extreme heat. There are more than 62,000 NYCHA tenants over the age of 65. [34] This is the fastest growing age group among NYCHA’s population and the most susceptible to health complications resulting from heat exposure. [35] Accordingly, NYC should focus on providing additional support to NYCHA residents and federal housing residents. NYCHA should have free professional installations and waive any additional fees that offset the cost of additional power they consume. Additionally, all NYCHA elevators must be safely operable, which will require thorough auditing and regular maintenance and monitoring. Funding should be made available by the City and State to support these retrofits.

For long-term solutions to cooling access for vulnerable residents, NYCHA must upgrade building envelopes and install efficient heating and cooling technologies such as heat pumps.
Recommendation 2: Increase the collection of heat-related health data, analyze cumulative impacts, and share the findings with the EJ Advisory Board.

Currently, the City collects, analyzes, and interprets heat-related health data annually as per Local Law 84 of 2020. This data is aggregated demographic information including, but not limited to, the age, gender, neighborhood tabulation area and the race or ethnicity of the decedents. This should be complemented with data on the social determinants of health and NYC’s heat vulnerability index to capture the effects of cumulative impacts and identify vulnerable populations. The findings should be shared with the EJ Advisory Board so that they can recommend meaningful policies and programs. It should also be made publicly available so that community organizations and residents can use it for their outreach and advocacy efforts.

Recommendation 3: Require that home health aides participate in trainings to learn how to identify health-related heat impacts.

In 2017, the City announced that it would partner with three home care agencies to train home health aides to recognize and address early signs of heat related illness. The State should require that all home health aides participate in this training. Those that are already certified when the new requirement is imposed should receive compensation from the State for any additional training.
Recommendation 4: Increase the collection of heat-related health data, analyze cumulative impacts, and share the findings with the EJ Advisory Board.

The City should collect, analyze, and interpret heat-related health data annually. This should be complemented with data on the social determinants of health and NYC’s heat vulnerability index to capture the effects of cumulative impacts and identify vulnerable populations. The findings should be shared with the EJ Advisory Board so that they can recommend meaningful policies and programs. It should also be made publicly available so that community organizations and residents can use it for their outreach and advocacy efforts.
OBJECTIVE 6: IMPLEMENT AND EXPAND CHANNELS OF COMMUNICATION WITH VULNERABLE POPULATIONS TO INCREASE AWARENESS OF EXTREME HEAT IMPACTS.

In order to protect vulnerable populations from extreme heat, the City must improve and expand communication with communities. Initiatives to raise awareness should focus on:

- defining extreme heat;
- describing the health risks and vulnerability;
- identifying inequalities and disparities; and
- providing information about available programs (e.g. cooling centers and LIHEAP).

Recommendation 1: Expand and permanently fund the Be a Buddy Program.

The Be A Buddy Program was launched in 2017 to match community-based organizations with at-risk NYC residents. [36] Check-ins from local volunteers help to ensure that the wellbeing of vulnerable populations, especially isolated elderly people, is not compromised during extreme heat events. The Be A Buddy Program was initially a two-year pilot initiative to develop and test strategies. The City must allocate more funding to the Department of Health and Mental Hygiene to expand the Be A Buddy program to at least five more heat vulnerable neighborhoods by 2024.
Recommendation 2: Develop a partnership between the Mayor’s Office of Emergency Management and local television and radio stations.

A survey conducted in NYC reported that 82 percent of the City’s most vulnerable population receives heat-health information from TV. [37] This could be an important tool during this summer since most people, especially elderly, stay indoors when it is hot. In 2018, the City hosted a workshop with meteorologists and health reporters to improve communication about extreme heat and associated health risks. The City should continue to provide such workshops to strengthen partnerships with reporters, thereby increasing the general public’s awareness.

Recommendation 3: Strengthen partnerships with faith communities.

Working with trusted organizations is an important strategy to increase communication channels with vulnerable populations. Thus, collaboration with faith communities should be encouraged as a way to share information about extreme heat with those that regularly attend churches, mosques, temples, and other houses of worship.

Recommendation 4: Require the announcement of extreme heat emergencies through the emergency broadcast system.

The Federal Communications Commission requires that broadcasters and cable operators provide information during immediate weather emergencies, such as hurricanes, floods, and heavy snows. This requirement should be updated to include extreme heat events. Currently, the Federal Communications Commissions must broadcast the information so that it is accessible in English, to persons who are deaf or hard of hearing, and to persons who are blind or have visual disabilities. [38] However, additional language requirements should be offered to increase inclusivity.
OBJECTIVE 7: IMPLEMENT GREEN DESIGN TECHNIQUES AND INCREASE RENEWABLE ENERGY PRODUCTION TO PROMOTE NATURAL COOLING AND REDUCE NYC’S CARBON FOOTPRINT.

Recommendation 1: Plant vegetation and expand green spaces in neighborhoods with high heat vulnerability to reduce the urban heat island effect.

Shade from tree covering can help to naturally cool surrounding areas without the use of energy technologies that produce greenhouse gases, such as air conditioners. Many heat vulnerable neighborhoods have less canopy, and this inequitable distribution must be rectified.

Recommendation 2: Advocate for equitable distribution of green roofs.

Currently, of the 736 green roofs in New York City, over 300 lie in midtown and downtown Manhattan while the rest are spread through sporadically throughout the city. [39] The City must prioritize installing green roofs in heat-vulnerable neighborhoods.
Recommendation 3: Increase research and investment in renewable energy sources.

Heat waves increase electricity use, which contributes to greenhouse gas contamination and perpetuates climate change. Thus, while air conditioners are an important adaptation tool during extreme heat events, they emit fossil fuels. Ultimately, there needs to be greater investment in renewable energy, such as solar and wind. Con-Ed should support a just transition to clean and renewable energy. Green jobs should be maximized to support local communities.

Recommendation 4: Advocate for increased tree planting in East Harlem.

An East Harlem street can be up to 31 degrees hotter than Central Park West. This is mostly due to the lack of street trees. Researchers at Portland State University found that formerly redlined places, including Harlem, are on average 5 degrees Fahrenheit warmer than non-redlined neighborhoods. Trees are vital for mitigating urban heat island effect and can lower temperatures by up to nine degrees, cut air conditioning use by 30%, and reduce heating energy use by a further 20-50%. The “Million More Trees” initiative is vital because of the need to plant more trees along the East 125th Street corridor – one of the areas in NYC with a disproportionate extreme heat burden.
CONCLUSION

New York City must pursue both short-term and long-term objectives to mitigate the negative impacts that extreme heat can have on the health of vulnerable populations. This will require collaboration and cooperation between government agencies, local organizations, community members, and private companies such as Con-Ed. Plans should focus on expanding extreme heat risk perception, increasing LIHEAP funds for the cooling assistance program, advocating for policy reforms, strengthening emergency plans, improving the use and services of cooling centers, supporting changes to City and State protocols, facilitating community-led resiliency planning and implementing green design and energy efficiency retrofits.

Additionally, NYC should analyze and evaluate other cities’ heat initiatives and cooling programs to develop creative and effective policies. For instance, in India, the annual Ahmedabad Heat Action Plan aims to provide a framework for the implementation, coordination, and evaluation of extreme heat response activities across city agencies in Ahmedabad. The plan emphasizes heatwave preparedness and response, and includes four pillars: building public awareness and community outreach; an early warning system and inter-agency coordination; capacity building among health-care professionals; and adaptive efforts to reduce heat in the city. The Plan’s primary objective is to alert those populations most at risk of heat-related illness that extreme heat conditions either exist or are imminent, and to take appropriate precautions. All programs, projects, and policies that New York City implements must champion social equity and prioritize supporting low-income households and people of color. WE ACT would like to see a holistic, multi-city agency approach to mitigating the often fatal impacts of extreme heat.
Appendix

List of objectives and corresponding recommendations.

1. **Expand LIHEAP to increase access to air conditioners and reduce the economic burden of electricity use for vulnerable populations.**
   - Allocate more funding to the LIHEAP program to subsidize summer utility bills.
   - Expand LIHEAP program to finance energy efficiency retrofits.
   - Increase the number of staff at OTDA assigned to LIHEAP

2. **Advocate for legislative action in the City Council to mitigate extreme heat impacts.**
   - Support legislation to codify cooling centers in NYC.
   - Introduce bills that survey the level of green roof and solar roof penetration in environmental justice and heat vulnerable communities

3. **Coordinate emergency planning strategies during extreme heat events to prevent power outages and promote safety.**
   - Preemptively set minimum temperatures for larger buildings to reduce energy loads.
   - Establish a maximum indoor temperature threshold for facilities that house heat vulnerable populations
   - Securing electricity for the most vulnerable customers
   - Improve the delivery of portable generators.
   - Support heat vulnerable communities in participatory visioning processes with Community Boards to develop plans for resilience to extreme heat.
   - Develop community-led neighborhood-specific heat action plans to protect vulnerable populations during extreme heat events.

4. **Encourage the use of and improve the amenities offered by cooling centers.**
   - Develop and strengthen neighborhood-specific communication plans that promote the use of cooling centers.
   - Improve cooling center services to create a safer and more enjoyable environment.
   - Install and upgrade cooling systems in public school buildings throughout the City.

5. **Design and implement new City and State protocols to protect vulnerable populations from heat-related health illnesses**
   - Provide additional funding for NYCHA to protect vulnerable residents and improve building efficiency.
   - Increase the collection of heat-related health data, analyze cumulative impacts, and share the findings with the EJ Advisory Board

6. **Implement and expand channels of communication with vulnerable populations to increase awareness of extreme heat impacts.**
   - Expand and permanently fund the Be a Buddy Program
   - Develop a partnership between the Mayor’s Office of Emergency Management and local television and radio stations.
   - Strengthen partnerships with faith communities.
   - Require the announcement of extreme heat emergencies through the emergency broadcast system.

7. **Implement green design techniques and increase renewable energy production to promote natural cooling and reduce NYC’s carbon footprint**
   - Plant vegetation and expand green spaces in neighborhoods with high heat vulnerability to reduce the urban heat island effect.
   - Advocate for equitable distribution of green roofs.
   - Increase research and investment in renewable energy sources.
   - Advocate for increased tree planting in East Harlem.
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7. Ibid.

8. Ibid.

9. Ibid.

10. Ibid.


24. Requiring the department of environmental protection to post a map of green roofs online, Int 0102-2022, New York City.

25. Education and outreach regarding solar and green roof requirements, Int 0239-2022, New York City.

26. Requiring the DOE to conduct a study on the feasibility of installing green roofs on schools, Int 0233-2022, New York City.


30. Ibid.

31. Ibid.

32. Ibid.


