

n days with extreme weather, like heat waves or sub-zero temperatures, residents consume more energy to stay cool and warm, which puts excessive demand on the grid. In response to this increased demand in electricity, highly polluting power plants known as "peakers" fire up in the South Bronx, Sunset Park, and other communities of color throughout New York City. These inefficient peakers spew harmful emissions into neighborhoods already overburdened by pollution, exacerbating widespread health problems. Peaker plants are a prime example of how low-income communities and communities of color bear the brunt of a host of energy and industrial infrastructure that poses significant public health and environmental hazards.

This inequitable energy system cannot continue. The PEAK Coalition—UPROSE, THE POINT CDC, New York City Environmental Justice Alliance (NYC-EJA), New York Lawyers for the Public Interest (NYLPI), and Clean Energy Group (CEG)—has come together to end this long-standing pollution burden on the city's most climate-vulnerable residents. A system of localized renewable energy generation and battery storage to replace peaker plants can reduce greenhouse gas (GHG) emissions, reduce electric utility bills, improve equity and public health, and make the grid more resilient in the face of increased storms and climate impacts.

This Coalition will lead the first comprehensive effort in the nation to reduce the negative and racially disproportionate health impacts of a city's peaker plants by replacing them with renewable energy and battery storage solutions. The collaboration brings technical, legal, public health, and planning expertise to support organizing and advocacy led by communities harmed by peaker plant pollution.

The need to transition from fossil fuels to renewable sources of energy has never been more evident in this era of climate crisis. With strong leadership from State and City government, in partnership with directly impacted community members

and leaders in renewable and storage technology, New York City can be at the forefront of developing innovative renewable energy and storage systems.

Peaker plants in New York City are perhaps the most egregious energy-related example of what environmental injustice means today. Most of these fossil fuel peaker plants are very old, some dating back to the 1950s, and many have been operating in the city for decades without any modern pollution control equipment. Some plants run on highly polluting fuels like kerosene or oil, at least part of the time.

# **How a Peaker Plant Works**



# Peaker Plants Fossil-fueled peaker power plants are built to provide occasional power when regular power plants cannot meet customer electricity needs during times of exceptionally high demand.



High Demand
Weather-related incidents (heat waves or extreme cold) and other factors can put excessive demands on the grid, particularly in constrained areas like NYC. If the grid cannot deliver enough power to meet localized meand peaks, it must call on peaker power plants.



# Pirty Energy Peaker power plants in NYC are fueled by natural gas, oil, or even kerosene. When these costly and inefficient peaker plants are turned on, they expel harmful pollutants, like NO<sub>x</sub> and SO<sub>x</sub> and particulates, into the surrounding communities.



Big Money
Because peakers
are paid to be available but are rarely
called on to produce
energy—often running no more than
a few hundred hours
each year—peaker
plants are the most
expensive sources
of electricity in the
power system.



### Sit and Wait

When they are not needed, peakers are paid hundreds of millions of dollars each year to sit and wait for peak energy demand events. Plant owners make most of their money through ratepayer-funded capacity payments, even when peakers are not producing energy.

A new report prepared by the PEAK Coalition, *Dirty Energy, Big Money*, details the egregious negative impacts of peakers plants on frontline environmental justice communities in terms of health and wealth, noting private companies that own the peaker plants receive billions of dollars to keep this polluting infrastructure in place. Between 2010–2019, peaker plant owners received an estimated \$4.5 billion just to be "on standby" to produce very little energy for only a few days a year.

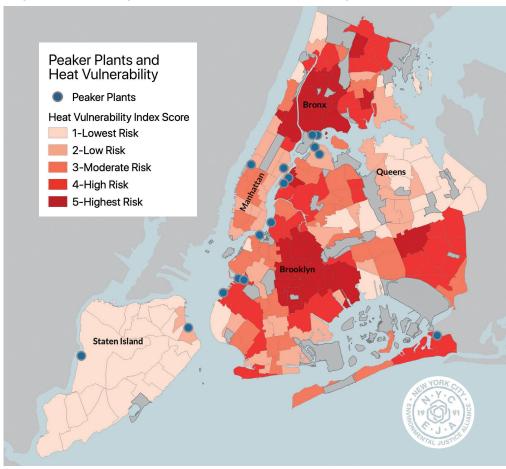
Replacing peaker plants offers a major opportunity to improve public health in New York City and a critical first step to achieving New York State's newly mandated zero-emissions energy sector by 2040 under the innovative New York State Climate Leadership and Community Protection Act.

This clean energy transition is not just theoretical. Around the country, utilities have selected battery storage and renewable options instead of fossil fuel power plants to meet peak needs based on competitive prices and the ability to deliver electricity efficiently.

Replacing peaker plants with clean energy alternatives also increases investments that serve local community and workforce needs rather than enriching fossil fuel companies. Prioritizing publicly-owned and community-owned clean energy infrastructure in New York City's environmental justice communities can also provide energy resiliency, local wealth creation, and other benefits to the city's most vulnerable populations.

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# Map of New York City Peaker Plants and Heat Vulnerability Index



Source: NYC Environmental Justice Alliance (Using data from the NYC Department of Health and Mental Hygiene, the New York State Department of Environmental Conservation, and the New York Independent Systems Operator)

# A Better Way to Meet Peak Demand



### Peaker Plant Alternatives

Due to significant cost declines for renewable generation and energy storage technologies, fossilfueled peakers can now be economically replaced by cleaner technologies.

### Local Renewables

Renewable resources, both large-scale solutions like offshore wind and small-scale solutions like rooftop solar systems, can be installed in many locations where local energy generation is needed most.

# **Battery Storage**

Battery storage technologies can save electricity generated by wind and solar to be used during times of high demand—delivering critical peak power when the grid needs it most and providing lucrative revenue opportunities for battery system owners.

### **Community Power**

Local renewable resources and battery storage can be combined and aggregated to provide a cheaper, cleaner, and more efficient alternative to fossil-fueled peakers. Unlike big power plants, these distributed resources offer opportunities for community ownership and local wealth creation, providing benefits to communities instead of causing them harm.

from air pollution in low-income communities and communities of color is a moral and public health imperative—ever more so now, with the rampant spread of the COVID-19, which is particularly impacting people with existing respiratory problems. Replacing New York City's aging, fossil fuel peaker plants is a test case for how well New York will live up to its climate and equity commitments.

Learn more at www.peakcoalition.org.