Exploring Peaker Power Plant Inequities with Clean Energy Group’s New Mapping Tool

June 23, 2022
WEBINAR LOGISTICS

Join audio:
• Choose Mic & Speakers to use VoIP
• Choose Telephone and dial using the information provided

Use the orange arrow to open and close your control panel

Submit questions and comments via the Questions panel

This webinar is being recorded. We will email you a webinar recording within 48 hours. CEG’s webinars are archived at www.cleanegroup.org/webinars
Clean Energy Group (CEG) works at the forefront of clean energy innovation to accelerate an equitable and inclusive transition to a resilient, sustainable, clean energy future.

Visit [www.cleanegroup.org](http://www.cleanegroup.org) to learn more about our current initiatives, recent publications, and upcoming events.
WEBINAR SPEAKERS

Seth Mullendore  
President, Clean Energy Group

Summer Sandoval  
Energy Democracy Coordinator, UPROSE

Rosemary Wessel  
Program Director, No Fracked Gas in Mass, Berkshire Environmental Action Team (BEAT)

Jane Winn  
Founding Executive Director, Berkshire Environmental Action Team (BEAT)

Shelley Robbins  
Project Director, Clean Energy Group

UPROSE

BEAT

Clean Energy Group
PEAK Coalition: Operationalizing Frontline Community-Led Just Energy Transition

Summer Sandoval | UPROSE | Energy Democracy Coordinator | June 23rd, 2022
PEAK Coalition: *Stop the Bad; Build the Good*
What is a Peaker Power Plant?

The oldest operating peaker in New York City was built in **1954**. The average age of peaker plants in New York City is **39**.

Peaker plants generally burn *fracked gas* and *fuel oil*. Many gas turbines efficiency can be as low as **30 to 35%**.

Because peakers only operate during times of high energy demand, they have an **exceptionally high $/kWh**.

Peakers emit a high level of pollutants relative to the electricity generation. When New York’s gas-fired peaker plants are operating, “they can account for over 33% of New York’s daily power plant NOx emissions.”

Website: peakcoalition.org
# NYC CAPACITY PAYMENTS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ArcLight Capital Holdings LLC</td>
<td>Astoria Generating Company L.P.</td>
<td>Astoria</td>
<td>Queens</td>
<td>$500,700,000</td>
<td>$1,415,400,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gowanus</td>
<td>Brooklyn</td>
<td>$603,500,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Narrows</td>
<td>Brooklyn</td>
<td>$311,200,000</td>
<td></td>
</tr>
<tr>
<td>Consolidated Edison Inc.</td>
<td>Consolidated Edison Inc.</td>
<td>59 Street</td>
<td>Manhattan</td>
<td>$17,100,000</td>
<td>$271,800,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>74 Street</td>
<td>Manhattan</td>
<td>$38,500,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>East River</td>
<td>Manhattan</td>
<td>$183,000,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hudson Ave.</td>
<td>Brooklyn</td>
<td>$33,100,000</td>
<td></td>
</tr>
<tr>
<td>LS Power Group</td>
<td>Helix Ravenswood LLC</td>
<td>Ravenswood</td>
<td>Queens</td>
<td>$1,189,900,000</td>
<td>$1,189,900,000</td>
</tr>
<tr>
<td>New York Power Authority</td>
<td>New York Power Authority</td>
<td>Harlem River</td>
<td>Bronx</td>
<td>$79,400,000</td>
<td>$329,600,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hell Gate</td>
<td>Bronx</td>
<td>$79,400,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kent</td>
<td>Brooklyn</td>
<td>$45,800,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pouch Terminal</td>
<td>Staten Island</td>
<td>$45,400,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vernon Blvd.</td>
<td>Queens</td>
<td>$79,400,000</td>
<td></td>
</tr>
<tr>
<td>NRG Energy Inc.</td>
<td>NRG Power Marketing LLC</td>
<td>Arthur Kill</td>
<td>Staten Island</td>
<td>$865,300,000</td>
<td>$1,318,900,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Astoria GT</td>
<td>Queens</td>
<td>$453,600,000</td>
<td></td>
</tr>
</tbody>
</table>

**Total Capacity Revenue for All NYC Peaker Plants**: $4,525,500,000
FIGURE 2: Map of New York City Peaker Plants and Neighborhoods Prone to Heat Vulnerability

Peaker Plants and Heat Vulnerability

- Peaker Plants

Heat Vulnerability Index Score
- 1-Lowest Risk
- 2-Low Risk
- 3-Moderate Risk
- 4-High Risk
- 5-Highest Risk

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)
People of color breath 66% more air pollution than white people. Latinos- 75%, Asians- 73%, African American- 61% exposed to more air pollution than white residents. (EPA 2014; U.S. 2018 U.S. Census Analysis)
Sunset Park Community Profile:

Demographics:

- **Population:** 132,721

**Age Distribution:**
- 0-17: 22%
- 18-24: 9%
- 25-44: 39%
- 45-64: 21%
- 65+: 9%

**Race and Ethnicity:**
- **Asian:** 30%
- **Black:** 3%
- **Latino:** 42%
- **White:** 23%
- **Other:** 2%

UPROSE’s Climate & Community Health Vulnerability Assessment

Preliminary findings:
Sunset Park residents self-reported diagnosed chronic health problems

Top 5 chronic health problems:
1. Allergies
2. Asthma
3. Emotional wellbeing
4. High Blood Pressure
5. Diabetes

*Other (i.e. cardiovascular disease, cancer, arthritis, autoimmune disorders, etc.)
Systemic Challenges: NYC Environmental Justice Communities Most Harmed by Fossil Fuel Pollution

Figure 2: Upstate and Downstate Energy Supply Profile

Source: NYISO, “The Vision for a Greener Grid”
Distributed solar in the city, supported by the NY Incentive program, accounts for only 6% of the total capacity installed in the State.

Figure 8. Growth of Distributed Solar in New York

Source: Strategen based on data from NYSERDA\textsuperscript{42}

NY State

NYC
Gowanus Re-Powering: Fighting Local Fossil Fuel Investment

- **Astoria Generating Company (AGC)** is a private owner of the 2 largest and oldest peaker power plants in Sunset Park, Brooklyn
  - Gowanus: 640 Megawatts
  - Narrows: 352 Megawatts

- AGC submitted a proposal to re-power the fuel oil and fracked gas plants with a new **fracked gas (fossil fuel) peaker power plant**

- **UPROSE** led opposition through **Article X Process as an Intervenor**.

- Working with the support of PEAK to promote renewable energy alternatives that are aligned with:
  - **New York State Climate Leadership and Community Protection Act compliance**
    - 85% economy-wide emission reductions & carbon neutral by 2050

- In December 2021, the company announced the **discontinuance of their repowering proceeding**
  - On the heels of New York State Department of Conservation’s (DEC) rejection of two permits to repower fossil fuel plants: Queens & Danskammer
Re REPLACING PEAKER PLANTS

DER Strategies for Sunset Park, Gowanus, and Bay Ridge

State Collaborations: Sunset Park Energy Study

- Community-Led Model for climate solutions
- Identified DER strategies to replace peaker plant usage
- Redress historic legacy of pollution & disparity
- Supporting a Just Transition
- Not just about WHAT or WHERE you fund, but **WHO** you fund to build long term community wealth
New York Power Authority Issues Solicitation for Battery Storage Proposals to Use Its Small Clean Power Plant Sites and Electrical Infrastructure

**For Immediate Release: 4/21/22**
Contact: Susan Craig | Susan.Craig@nypa.gov

**NYP A Small Clean Power Plant Adaptation Study Says Battery Storage Could Play Significant Role in Transitioning Its Small Clean Power Plants to Cleaner Energy Technologies**

**Study and Solicitation to Help Inform State’s Plan to Repurpose Existing Downstate Fossil-Based Electric Generation and Infrastructure**

Read all PEAK Coalition Reports at: peakcoalition.org
Fighting Peaker Plant Pollution in Sunset Park

Joseph Seymour Plant
- Fracked Gas
- 94 Megawatts
- Owner: NYPA
- Age: 20 years

Narrows Plant
- Fuel Oil & Fracked Gas
- 352 Megawatts
- Owner: ArcLight Capital Holdings LLC/AGC
- Age: 50 years

Gowanus Plant
- Fuel Oil & Fracked Gas
- 640 Megawatts
- Owner: ArcLight Capital Holdings LLC/AGC
- Age: 51 years
Climate Justice: What we are fighting for

**Sunset Park Solar**
- Local clean energy
- Community-owned solar
- 150-200 households & small businesses
- 15% monthly discount
- Community wealth building

**Offshore Wind**
- Thousands of green jobs
- Local workforce opportunities
- Regional clean energy hub
- Model for OSW development
- Green Re-Industrialization of NYC’s largest industrial waterfront

**Green Resilient Industrial District**
- Community-led
- Comprehensive plan
- Strengthen social cohesion
- Operationalize climate policies
- Climate adaptation, mitigation, and resilience!

*Building Frontline Community-Led Models for a Just Transition*
Thank You!

Follow PEAK Coalition
Twitter: @peakcoalition
Website: peakcoalition.org
Members: NYC Environmental Justice Alliance, The Point CDC, UPROSE, New York Lawyers For the Public Interest, Clean Energy Group

Follow UPROSE
Twitter: @UPROSE
Instagram: uprosebrooklyn
Facebook: UpRose Bk
Website: uprose.org
E-mail: info@uprose.org
Put Peakers in the Past

Cleaning the Grid in Berkshire County
By Shutting Down Fossil Fuel Peaker Plants
1. Research

Peaker plants in Berkshire County

- Three fossil fueled peaking power plants in Berkshire County:

  Woodland in Lee,
  Doreen and Pittsfield Generating in Pittsfield
Pittsfield Generating

- **Age:** 30 years
- **Operating Capacity:** 160 MW
- **Fuel:** fracked gas, occasionally #2 fuel oil (*stored on site*)
- **GHG emissions:** 15% of the city of Pittsfield’s entire stationary energy emissions in 2018 despite only operating about 5% of the time
  
  60,010 MTCO$_2$ (*metric tons, 2018*)

- **Other emissions:**
  10.48 tons of NOx in 2018
- **Water for steam is drawn from same level as GE waste**
- **Permitting:**
  *Was up for Air Quality Permit renewal in 2021*
Pittsfield Generating

Neighborhood:
- Directly adjacent to Environmental Justice neighborhood
- Across the street from Allendale Elementary School
- Morningside School and neighborhood within 3 mi.
- Just over 1 mi. from Doreen Plant
Doreen

- **Age:** 51 years  
- **Size:** 21.1 MW  
- **Fuel:** Kerosene (jet fuel)

- **GHG emissions:** 513.6 MTCO₂ (metric tons, 2018)

- **Other emissions:**  
  Over 6,377 lbs of NOx in 2018

- **Neighborhood (3-mile radius):**  
  POC 15%  
  Low-income 37%  
  Williams Elementary ½ mi.  
  Egremont Elementary 1 ¼ mi.

- **Permitting:** NO PERMITS  
  This plant is old enough, the Clean Air Act does not apply
Woodland

- **Age**: 61 years
- **Size**: 20.4 MW
- **Fuel**: Kerosene (jet fuel)
- **GHG emissions**: 470.4 MTCO₂ (metric tons, 2018)
- **Other emissions**: Over 9,180.5 lbs of NOx in 2018
- **Neighborhood**: POC 6% (3-mile radius)
  Low-income 20% (3-mile radius)
  Across the street from October Mtn.
- **Permitting**: NO PERMITS
  This plant is old enough, the Clean Air Act does not apply
A recent BRPC analysis showed stark differences in life expectancy across Pittsfield based on neighborhood of residence.

Those living in the Morningside/Westside neighborhoods live, on average, 10-12 fewer years than those in the more income-secure Southeast neighborhood:

- Morningside: 71
- Westside: 73.9
- Pittsfield average: 79.5
- Southeast: 83.5 years
2. Raise public awareness
   — Media outreach
     - Webinars
     - newsletter
     - social media
     - Articles in local paper
     - Local radio programs
     - Petition
   — Door to door info flyers
   — Road sign campaign
   — Weekly standouts
It’s ok to get silly!

Costumes currently being used to fight the new peaker plant in Peabody, MA
3. Build a Coalition Opposing Peakers

**Coalition Members (so far):**

- 350MA – Berkshire Node
- 350 Central Mass
- Anni Maliki Designs
- Becket Democratic Town Committee
- Berkshire Environmental Action Team
- Berkshire Women’s Action Group
- Environment Committee
- Berkshire Democratic Socialists of America
- Canton Residents for a Sustainable & Equitable Future
- Climate Action Now – Pioneer Valley
- Community Action Works
- Divest Smith College
- The Enviro Show
- Friends of Mohawk Trail State Forest

- Green Sanctuary Climate Justice Group of the Unitarian Universalist Church
- Indivisible Pittsfield
- Lee Greener Gateway Committee
- MASSPIRG Students Berkshires Chapters
- MCLA MassPIRG
- Musante Farm
- NAACP - Berkshire County Branch
- No Fracked Gas in Mass
- The Old Stone Mill Center
- Town of Sheffield Democratic Committee
- Take Back the Grid
- UUMSB Social Justice Committee
- The Whitehead Foundation
- XR Berkshires
4. Get support among local officials
   — State legislators
   — Local Mayor / Select Board members
   — Local officials:
     – Boards of Health
     – Sustainability / Energy board

Areas of concern:
- fear of blackouts / “Texas panic”
- concern over loss of jobs
- fear of loss of local tax revenue
5. Start a dialog

— Pull in experts - *Clean Energy Group*
— Approach owners with question
  – What are your plans, given decarbonization mandate?
    *Provides them an opportunity to be “Climate Heroes”*
— Let them know we will work against permit renewal

**Difficulties:**

- finding the corporate decision-makers
- bumping into limitations of our state’s regulations
  *Permit renewal was not the obstacle we hoped for*
Results: Success!

— **Cogentrix**
  Converting its 3 MA peakers to storage & renewables
  Operational by end of 2023
  Looking into doing the same at other plants in other states

— **Pittsfield Generating**
  Originally position was “solving intermittency”
  We talked them into looking at storage & renewables
  Still not ready to take that step, but still talking with us

*Learned a lot from both about market and regulatory obstacles.*
What we’ve learned

— Energy market at ISO-New England is tricky
   - Loss of “injection rights” is a big stumbling block
   - MOPR is in place, disincentivizing renewables

— MA has strong environmental mandates in legislation, but:
   - regulations are not in place to enforce them
   - regulatory agencies are slow, even when sued
   - Alternative Compliance Payments are dropping.
     ACPs and RECs should remain the same, if not increase
   - Clean Peak Standard is beneficial, BUT doesn’t allow RECs when you charge from your own assets. Also no RECs for injecting stored energy into the grid.
For more information

Visit [nofrackedgasinmass.com](http://nofrackedgasinmass.com)
Look for the Putting Peakers in the Past header on the home page

or use this tiny url to get directly there
[tinyurl.com/PutPeakersInThePast](http://tinyurl.com/PutPeakersInThePast)

Questions?
Contact Rose at [rose@thebeatnews.org](mailto:rose@thebeatnews.org)
Cogentrix owns 20+ plants

Plans to add storage and renewables to all.
Both towns are in low areas surrounded by hills, trapping air in certain weather conditions.
Who Pays?

The capacity payments to keep these plants idle and waiting are paid by ratepayers in the capacity zone where the plants are located. For Berkshire County, that means ratepayers in the WCMA zone pays this cost.
Environmental Justice
Health Impact

Burning fossil fuels has local health impacts

- Effects are:
  reduced lung function, asthma, cardiovascular disease, preterm birth, and premature death. Children and elderly most vulnerable.

- Ground-level ozone (*from NOx, methane, volatile organic compounds*) is associated with many adverse health effects including premature death, respiratory hospital admissions, cases of aggravated asthma, lost days of school, and reduced productivity among outdoor workers.*

*“Health Effects of Burning Fossil Fuels”, State Energy & Environmental Impacts Center, NYU*
Thank you for attending our webinar

Seth Mullendore
President
Clean Energy Group
seth@cleanegroup.org

Shelley Robbins
Project Director
Clean Energy Group
shelley@cleanegroup.org

Find us online:
www.resilient-power.org
www.cleanegroup.org
www.facebook.com/clean.energy.group
@cleanenergygrp on Twitter
Upcoming Webinars

Feasibility and Implications of Two Dozen States Achieving 100% Renewable Energy Goals Equitably
Thursday, June 30, 2-3pm ET

Thursday, July 7, 3-4pm ET

Read more and register at www.cleanegroup.org/webinars