Hixon Center for Urban Sustainability

CASE STUDY

The Clean Heat Transition in New York City

Healthy City

Built Environment

Climate Issue: Building Heating Pollution

- In New York City (NYC), building heating systems have historically been powered by burning residual fuel oils
- Residual fuel oils are what is left after gasoline has been extracted from crude oil
- These fuels are cheaper, but their combustion leads to more air pollution than other fuel types and hundreds of premature deaths annually
- In 2007, about 10,000 buildings citywide burned the fuel types that generate the worst environmental impacts.

Clean Heat Program

The Clean Heat Program (CHP) is an initiative launched by New York City to improve air quality by decreasing emissions from buildings' boilers. The policy mandates a transition from residual diesel fuel oils to cleaner-burning alternatives. However, not everyone has been included in the process.

An Incomplete Transition

- The majority of buildings that have not fully transitioned to clean fuels are located in Uptown Manhattan and the Bronx
- Many buildings have only switched from the worst fuel to a marginally better option that will become illegal in 2030
- Uptown's residents are mostly lower-income and people of color. They have some of the nation's worst asthma rates.



Causes of Unequal Policy Implementation

The unequal clean fuel transition in NYC has been driven by uneven awareness, infrastructure, and financing options.

- Residents in Uptown demonstrate limited awareness of the connection between building heating and air pollution
- Landlords do not have a clear understanding of conversion options, causing reluctance to upgrade their heating systems
- Financing remains a concern due to high upfront costs, perceived market risks, and insufficient incentives
- Infrastructure limitations mean that disadvantaged communities have fewer options for potentially cleaner fuels like natural gas.

A Vision for Citywide Clean Heat

NYC's Clean Heat Program has successfully built an innovative public-private coalition that can work toward more inclusive implementation. This should include:

- Adopting a more transparent, data-driven approach to policy design to ensure all residents' needs are considered
- Simplifying and expanding financing options to make fuel conversion accessible and affordable for all residents
- Implementing a building-level energy rating system to empower building residents with information that holds landlords accountable

IN A NUTSHELL

- Building heating systems contribute significantly to air pollution in NYC. The city has pursued a clean transition by banning fuels with the worst environmental impacts.
- Although air quality has improved, there are still residential buildings using the worst fuels. A disproportionate pollution burden falls on marginalized communities.
- To fully transition to clean heat citywide, more support is necessary through better outreach, infrastructure improvements, and expanded financing options.

WHAT CAN YOUR CITY DO?

CONSIDER how residential energy transitions can yield different results across different communities.

DEVELOP detailed assessments of existing infrastructure inequalities

PROVIDE clear, transparent information about new regulations

OFFER customized financial solutions to ensure widespread access to clean fuel conversion

ENSURE that residents have access to technical assistance as they upgrade their heating systems.

To find out more information on this fact sheet, contact Dr Daniel Carrión at <u>daniel.carrion@yale.edu</u>. Case study based off Carrión D, Lee WV, Hernández D. Residual Inequity: Assessing the Unintended Consequences of New York City's Clean Heat Transition. Int J Environ Res Public Health. 2018 Jan 11;15(1):117. doi: 10.3390/ijerph15010117. PMID: 29324717; PMCID: PMC5800216.