

# Grey-to-Green Energy Transition Studio

The background of the entire slide is a dark, monochromatic photograph of a wind farm. Several large wind turbines are visible, their three-bladed rotors and tall towers silhouetted against a slightly lighter, hazy sky. The turbines are situated in a body of water, with their reflections visible on the surface. The overall tone is somber and industrial, fitting the 'Grey-to-Green' theme.

Urban Planning Studio | Spring 2020

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## Abstract

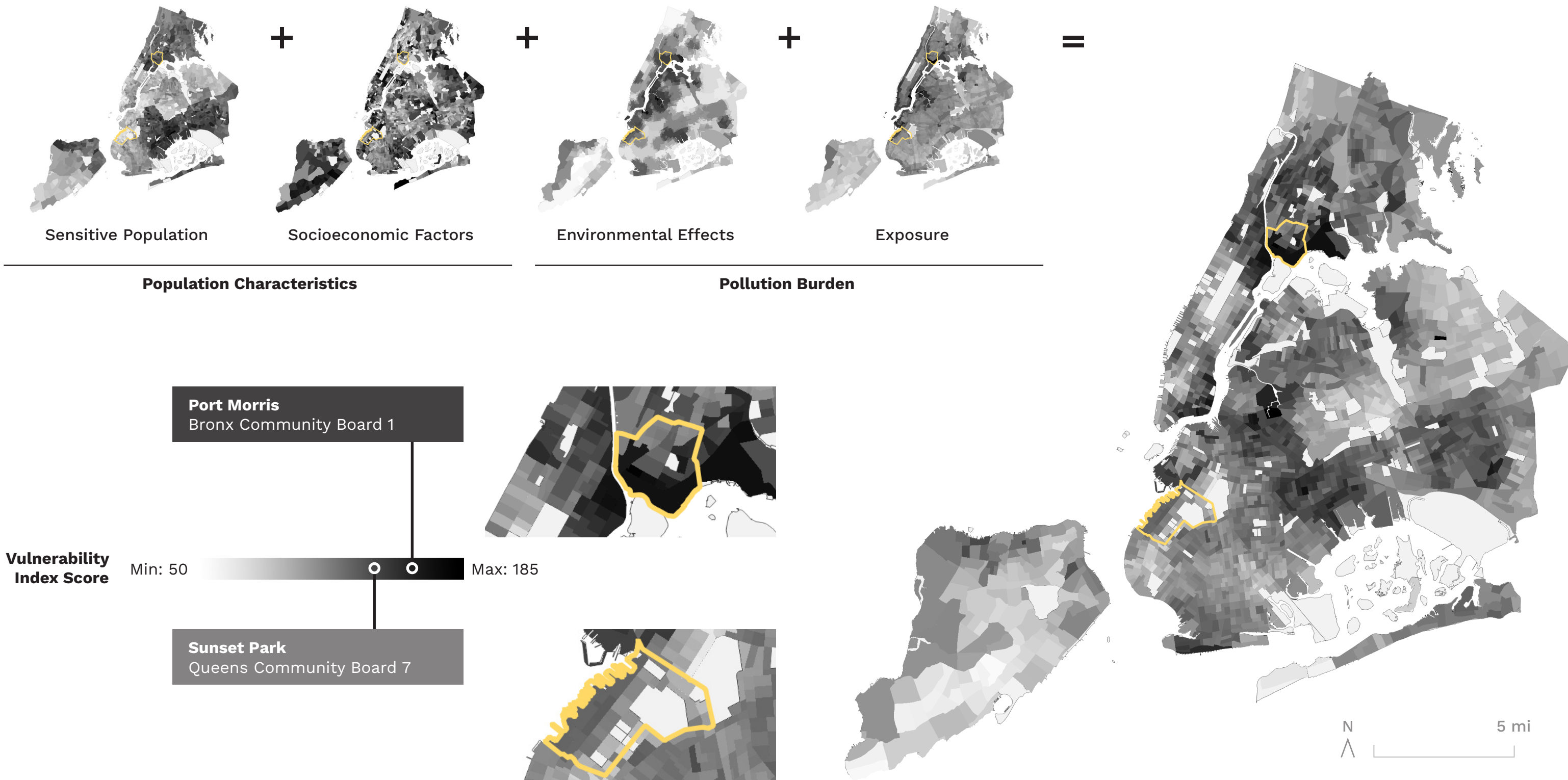
As the coming energy transition begins to accelerate, how can we reimagine the energy infrastructure in a way that serves environmental justice communities? The Climate Leadership and Community Protection Act not only mandates reducing carbon emissions and transitioning to renewable energy, but also ensures benefits and investments to communities that have been suffering from poor socioeconomic conditions and environmental pollution.

The Grey-to-Green Energy Transition studio is challenged to identify strategies and opportunities related to the eventual closure of peaker power plants in New York City, specifically balancing community priorities with future energy-related demands. In doing so, the studio analyzed 311 complaints to understand community concerns, created an index to identify ‘disadvantaged communities,’ developed strategies for ‘benefits of spending,’ conducted feasibility studies on solar and batteries, and proposed repurposing scenarios demonstrating new ideas of energy infrastructure on 3 peaker power plant sites in Port Morris and Sunset Park.



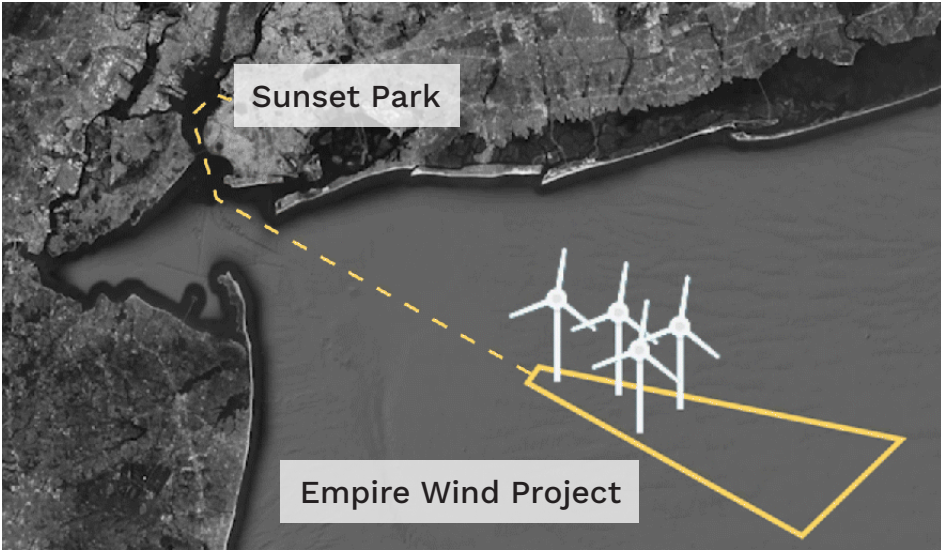
# Assessing Disadvantaged Communities

## NYC Communities & Environmental Screening Index





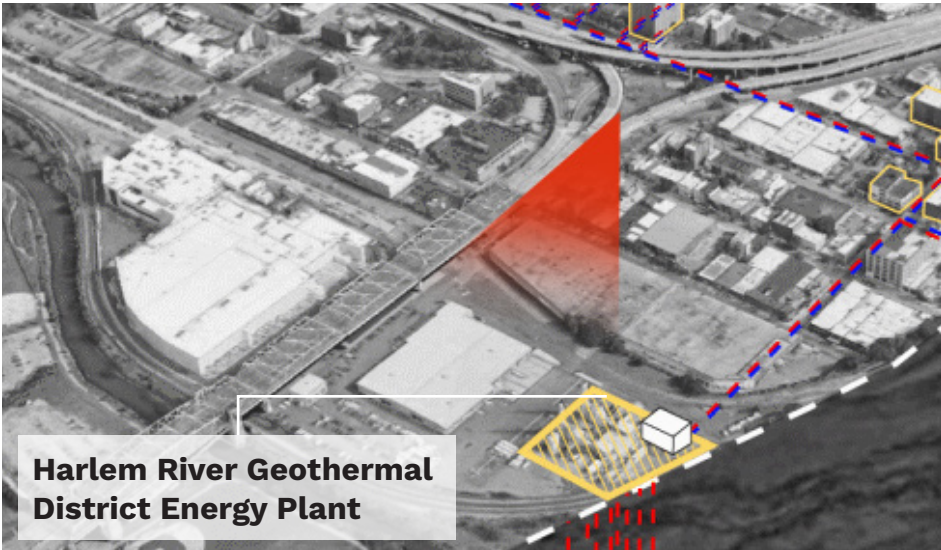
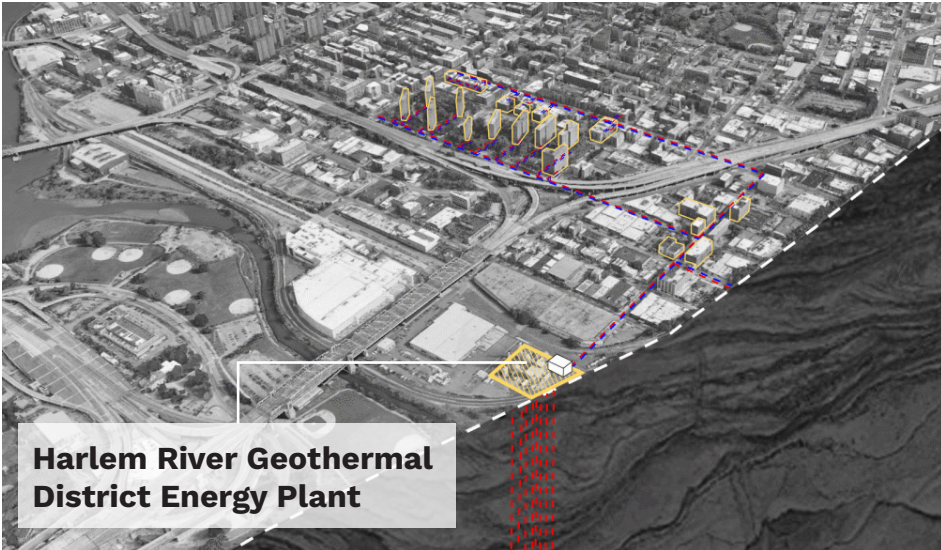
Repurpose: Connecting to Power  
Gowanus Peaker Plant Site in Sunset Park, NYC



With the Empire Wind project connects to the Gowanus peaker plant site in Sunset Park, we propose that the site is turned into a viewing platform that that connects communities to a working waterfront and is part of the community resiliency plans.



**Repurpose: Generating Power**  
Harlem River Peaker Plant Site in Port Morris, NYC



We propose that the Harlem River plant be converted into the first node in a network of district heating and cooling systems throughout the city, focusing first on delivering heat, hot water and cooling from renewable sources to the 3,567 residential units nearby.



## Repurpose: Manifesting Power

Hell Gate Peaker Plant Site in Port Morris, NYC



Building on the existing Haven Project which envisions a park centered on historical industrial structures, we propose that the Hell Gate Peaker Plant be used to house a gravity storage battery which uses gravity, recycled concrete, and software to provide dense energy storage that also creates spectacle of power.