

Spring 2022

# **COP: Carbon Offset Project**

## **Final Presentation**

**pcv**



**What would a carbon offset  
program for the Private sector look  
like in Philadelphia?**

*We predict the most effective carbon offset program is one that would provide private businesses with a set of city sponsored programs that they can purchase offsets for.*

*By making purchasing carbon offsets as easy as writing a check to the city of Philadelphia, businesses would be more likely to partake in offset program.*

# Team

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**Shraavasti Bhat**

*Project Lead*

Penn '25 |  
Computer Science &  
Economics (Finance)



**Aurora Yuan**

*Case Study of Penn*

Penn '25 |  
Neuroscience



**Noah Goldfischer**

*Scope*

Penn '25 |  
Logic, Information,  
and Computation



**Annabel Franklin**

*Pricing Strategist*

Penn '24 |  
Philosophy, Politics,  
and Economics



**Sneha Mekkala**

*Pricing Strategist*

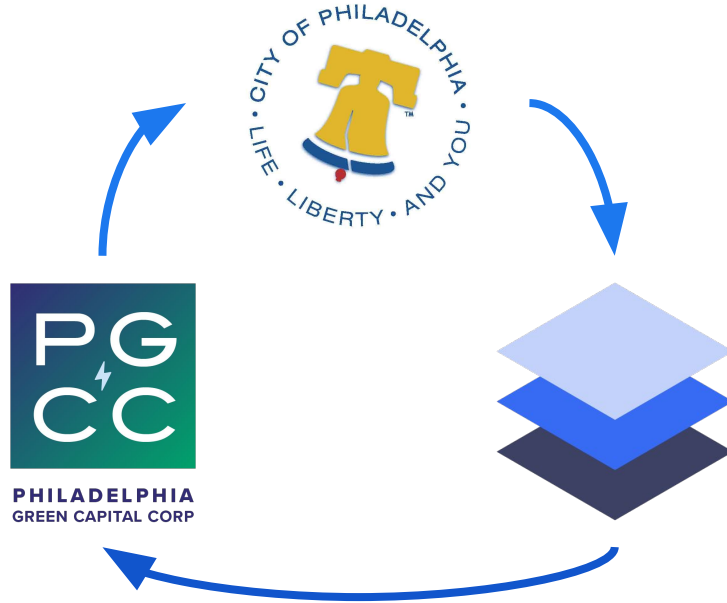
Penn '25 |  
Philosophy, Politics,  
and Economics

# Agenda

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1. Case Study of Penn
2. Design
3. Project Visualization (Scope & Pricing)
4. Findings & Suggestions

# Our Proposal



A carbon offset purchasing platform with

- **Local & verified offsets**
- **Community projects** targeting LMI and minority communities
- **Quick and easy payment** process



# Design

## High Overview of Platform Design Decisions



**Private firms**



**City Of Philadelphia**



**The Green Bank**

**Specific type of offset they  
want to purchase**

**Limited capacity to manage  
carbon offset projects**

**Lacks liquid capital for  
long-term projects**

### **4 Categories of Offsets:**

- Forestry
- Residential
- Industrial
- Landfill Gas

### **Partnership with Green Bank**

### **Annual and Monthly Offset subscriptions**

- Flexibility
- Cheaper unit rate
- Personalization



**COVID-19:** Learn how to stay safe, get vaccinated, and find testing. Visit [phila.gov/covid](https://phila.gov/covid).



## Office of Sustainability

Working to improve quality of life in Philadelphia by providing environmental, equity, economic, and health benefits for all.

[Home](#)[About ▾](#)[Publications](#)[Resources](#)[Get Involved](#)

 / Office of Sustainability

### What we do

The Office of Sustainability (OOS) works with partners around the City to improve quality of life in all Philadelphia neighborhoods, reduce the City's carbon emissions, and prepare Philadelphia for a hotter, wetter future. We organize around our [theory of change](#), which outlines our understanding of the climate crisis and vision for the future.

### Connect



One Parkway Building  
1515 Arch St., 13th Floor  
Philadelphia, PA 19102



## Get involved

Stay informed and join our work through our newsletter, events, and social media posts.

GET STARTED

## For Private Businesses

*Purchase local carbons offsets  
verified by the City Of  
Philadelphia*

## Programs



### Energy Benchmarking

Working to cut energy waste in Philadelphia's largest buildings by tracking and reporting citywide building performance.



### Greenworks

Setting a long-term vision for a healthy, efficient, and green Philadelphia for all.



### Zero Waste initiatives

Moving the City of Philadelphia toward a zero waste future.



### Flood Mitigation

Working to mitigate flooding in high impact, Low-Income residences with minimal protection



### Retrofitting

Working to mitigate flooding in high impact, Low-Income residences with minimal protection



### Energy Efficient AC Installation

Working to mitigate flooding in high impact, Low-Income residences with minimal protection

# Carbon Offsets For Businesses

## All Packages

### Forestry

### Residential

### Landfill Gass

### Industrial



#### Carbon Neutral Business Annual Subscription

Contribute to multiple projects in a year and form long lasting partnerships with our supporting organizations.



#### Carbon Neutral Business Monthly Subscription

Commit to more than one project over the course of the month. Every month, your emissions will be assessed and will be offset with different combinations of project.



#### Flood Mitigation Seasonal Subscription

Commit to a multiple local projects focused on flood mitigation during the height of the rainy season. You will be able to commit to a variety of projects from infrastructure to forestry.



#### Flood Mitigation

Working to mitigate flooding in high impact, Low-Income residences with minimal protection



#### Retrofitting

Working to mitigate flooding in high impact, Low-Income residences with minimal protection



#### Energy Efficient AC Installation

Working to mitigate flooding in high impact, Low-Income residences with minimal protection

All Packages

Forestry

Residential

Landfill Gas

Industrial

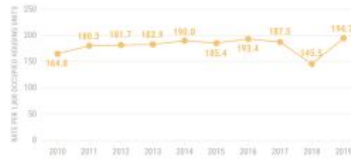
Register your Business [here](#) and [Login](#) to purchase offsets in 5 minutes!

## Retrofitting

Help renovate old residential building in North Philadelphia. Majority of Philadelphia's old buildings were constructed before the 1950's and housing code violations are steadily increasing every year.

### HOUSING CODE VIOLATIONS

Housing code violations occur when people living in rental properties make complaints to the Department of Licenses and Inspections, which then conducts inspections. The number of housing code violations is a proxy for measuring housing quality in the city, but it is influenced by the staffing levels of the Department of Licenses and Inspections. In 2019, 194.7 violations per 1,000 occupied housing units were issued. Rates are highest in the lowest-income neighborhoods, particularly in North Philadelphia.



SOURCE: 2010 - 2019 Philadelphia Licenses & Inspections

10,000 People Impacted every year

Work on 2500+ buildings every year

One-Time Purchase

\$ 133.37 \$/tonne

## Want to learn more about where we work?

### HOUSING WITH POTENTIAL LEAD RISK

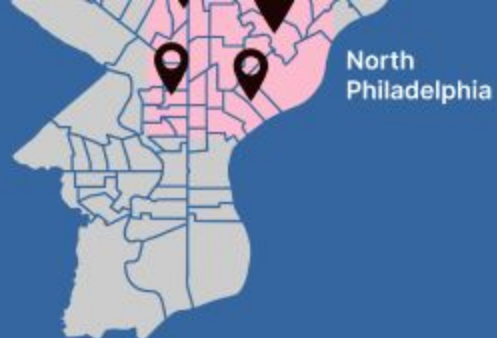
Most Philadelphia homes were built before 1950, and many of those in low income areas have been poorly maintained. Based on age of housing, 42.4 percent of houses in Philadelphia have a potential risk of lead exposure, which is particularly harmful for young children.



North



Help renovate old residential building in North Philadelphia. Majority of Philadelphia's old buildings were constructed before the 1950's and housing code violations are steadily increasing every year.



## Partners



**PHILADELPHIA**  
GREEN CAPITAL CORP





# Featured Projects

## Retrofitting



**Flood Mitigation**



**Retrofitting**



**Energy Efficient AC  
Installation**