

84th Session of the Committee on Urban Development, Housing
and Land Management

CARBON-NEUTRAL AND ENERGY-EFFICIENT HOUSING IN THE ECE REGION

Jenna Cramer, President & CEO

October 5, 2023

30 years

Working to make every building
and every community sustainable
so every person can thrive.



2030 and Beyond: A Place Where Every Person Can Thrive

Accelerating net-zero carbon, healthy, and affordable buildings and thriving communities for everyone.

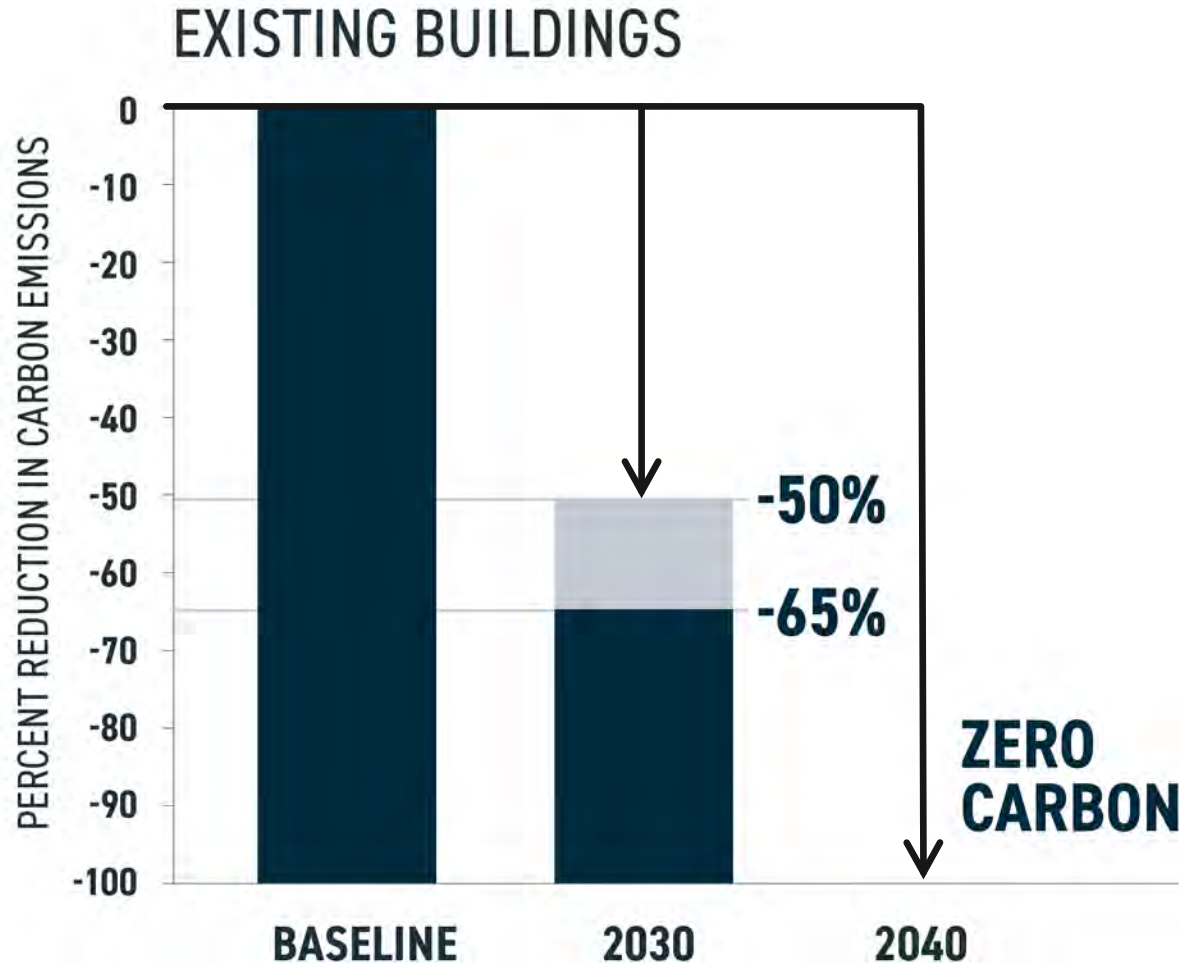




Local Impact



2030 District Model



“If the world is to meet the 1.5°C carbon budget set in the 2015 Paris Agreement, **we must reduce CO₂ emissions in the entire [existing] built environment by 50-65% by 2030 and reach zero carbon by 2040.**”

2030 Districts Network



2022
DATA

44.8%

CARBON REDUCTION
(INCLUDING RECs)

23.2%

ENERGY
REDUCTION

30M

SQUARE FEET EVALUATED
FOR IAQ (2021 DATA)

32.8%

WATER
REDUCTION

492,000

METRIC TONS OF CO₂e
EMISSIONS AVOIDED

\$59.7M

ANNUAL UTILITY
COST SAVINGS

\$393.4M

CUMULATIVE UTILITY
COST SAVINGS

550+

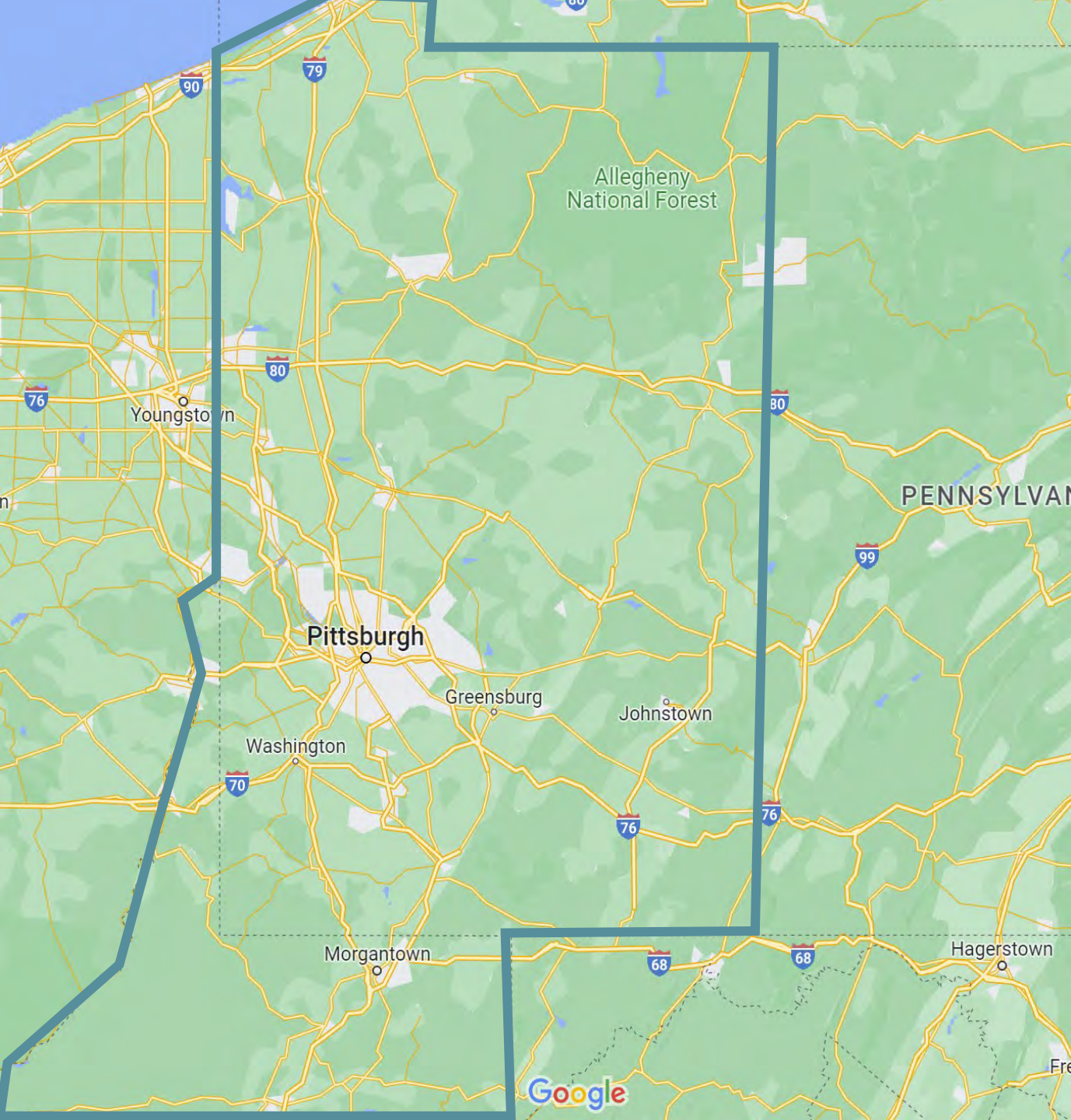
BUILDINGS COMMITTED
WITHIN BOUNDARY

87.1M

SQUARE FEET COMMITTED
WITHIN BOUNDARY

PITTSBURGH 2030 DISTRICT

COMMITTED COMMITTED UNBUILT NOT YET COMMITTED



Expanding the
2030 Challenge
across Western
Pennsylvania and
Northern West
Virginia

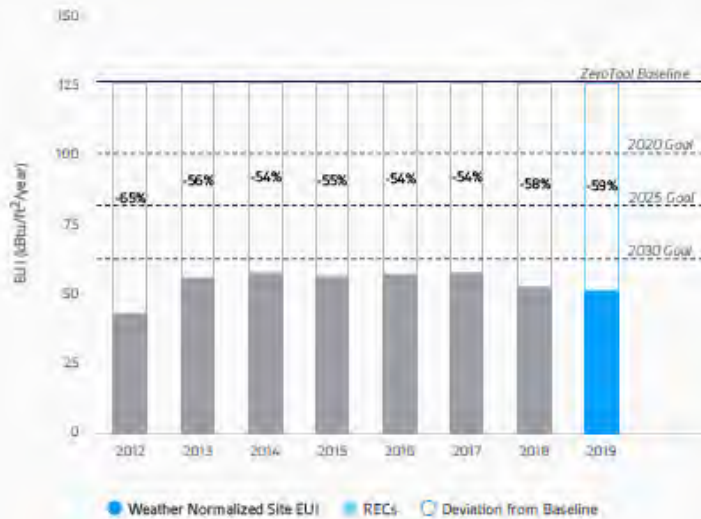
Using Data to Drive Change



ENERGY

Energy Report

The graph below summarizes annual energy performance over time relative to building intensity baselines and targets.



Baseline
ZeroTool Baseline
126.27 EUI
kBtu/ft²

2019 Performance
51.9 EUI

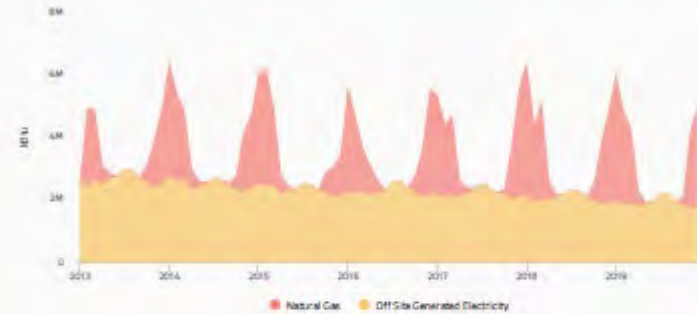
➔ 58.9% below the baseline (with RECs)

2018 Performance
53.1 EUI

➔ 57.9% below the baseline (with RECs)



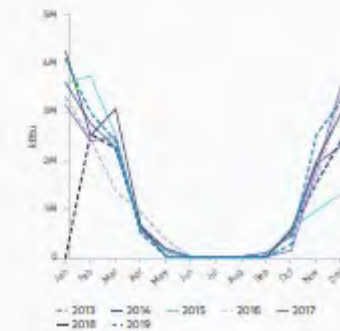
Energy Use by Calendar Month



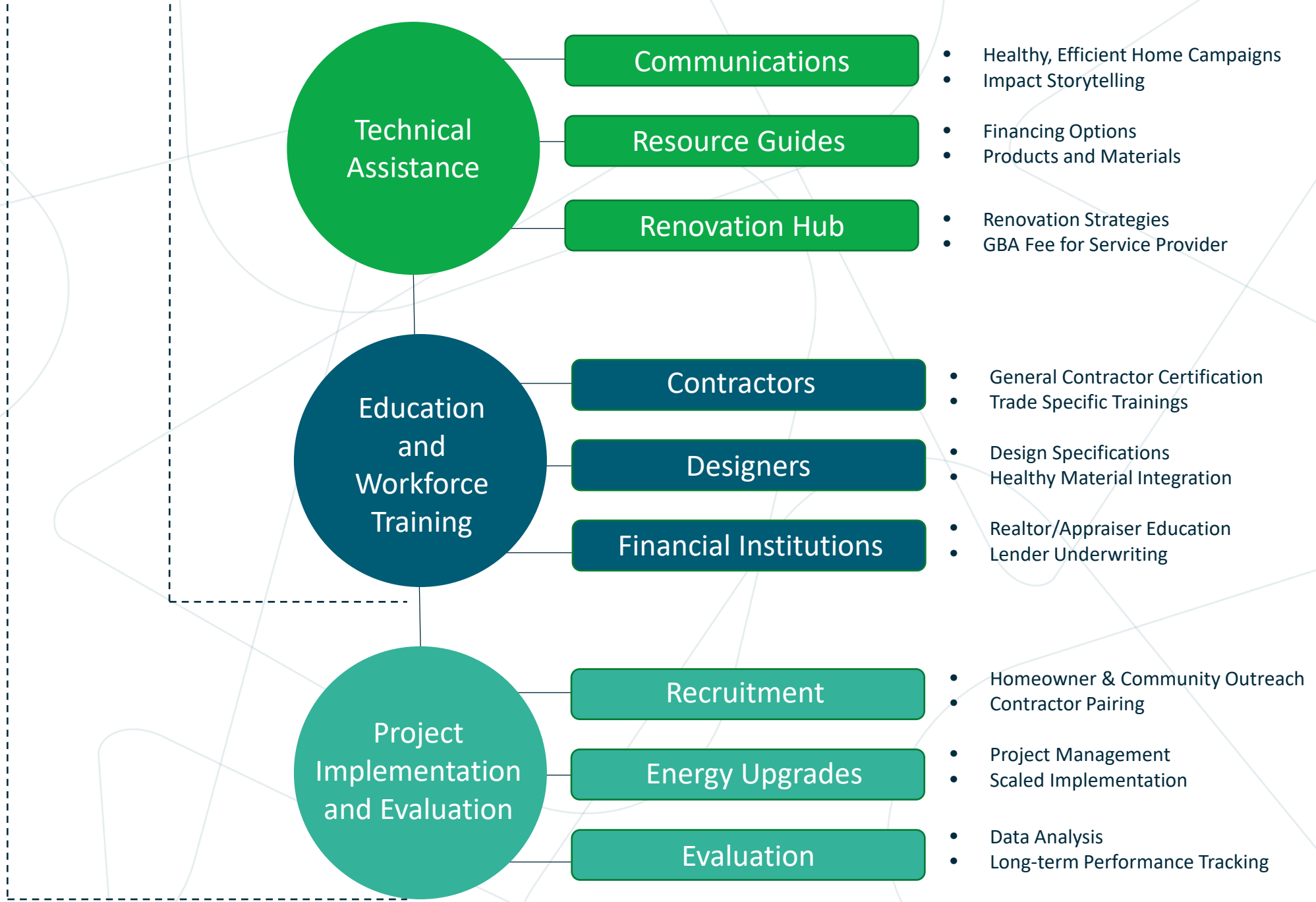
Total Off Site Generated Electricity



Total Natural Gas



RESIDENTIAL 2030 DISTRICT





Workforce Training:
International Partnerships
Sharing Best Practices

Sustainable Communities

Build Communities & Networks



NEIGHBORHOOD COMPREHENSIVE PLANS

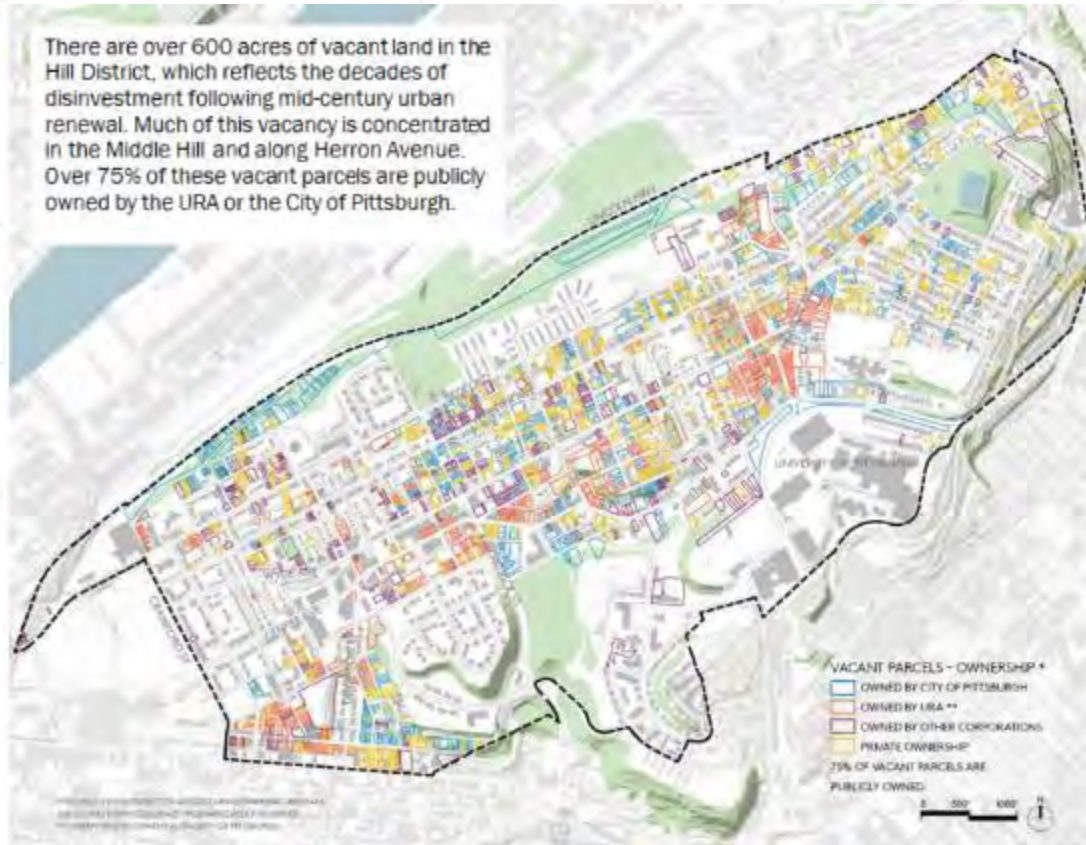


HEALTHY, EFFICIENT AND AFFORDABLE HOUSING ARE ESSENTIAL TO THRIVING COMMUNITIES



Community LEAP Project

Supported by US Department of Energy



GOAL:

1. Create a roadmap to finance and strategically sustainability retrofit the Hill's existing residential building stock
2. Establish a neighborhood-scale clean energy plan with a direct funding mechanism for the community
3. Evaluation of the Hill's abandoned mines can be used as renewable energy locations, carbon storage, or thermal energy generation

Pittsburgh's Voluntary Local Review

Carnegie Mellon University published first Voluntary University Review



PITTSBURGH AND THE SUSTAINABLE DEVELOPMENT GOALS

A VOLUNTARY LOCAL
REVIEW OF PROGRESS

2020
EDITION

A BLUEPRINT FOR
COLLABORATION,
COMMUNICATION
AND ACTION TO
IMPROVE SERVICES
TO RESIDENTS



Carnegie Mellon University
Sustainability Initiative

Global to Local Partnerships

- **Clean Energy Ministerial/Global Clean Energy Action Forum**, Pittsburgh in 2022: Toward a Buildings Breakthrough with UNECE, UNEP, and Global Alliance for Buildings and Construction
 - **Global partnerships create excitement and enthusiasm and a sense of common purpose as we mobilize local solutions to decarbonize the entire sector!**
 - Cooperation and Stronger Collaboration are essential
 - Disseminating and accelerating best practices at the local level
- **Looking Ahead:**
 - Centers of Excellence – Collaboration across UNECE program areas and with other international organizations
 - UNECE IKI Project – Products and supply chain for healthy, high-performing buildings



Thank you

Jenna Cramer, President & CEO

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