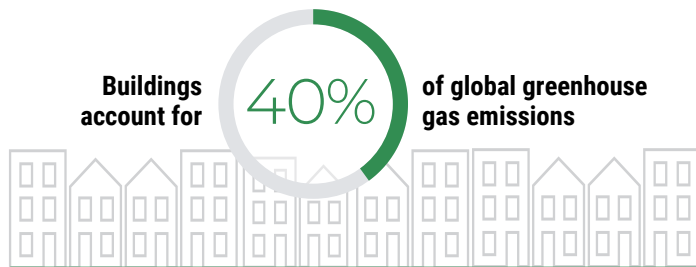


# RENOVATING AND RETROFITTING AGING PUBLIC BUILDINGS



## PROBLEM

Buildings account for about 40% of global greenhouse gas emissions due to the materials and fossil fuels used to construct, heat, cool, and power them. **Decarbonizing public buildings is a critical global challenge, with many suffering from poor energy efficiency, resulting in unnecessarily high energy costs, increased carbon emissions, and substandard living conditions.** In the United States, 67% of low-income households face a significant energy burden, while in the European Union, over 9% of citizens could not heat their homes adequately in 2022.



## SOLUTION

**Cities can enhance efficiency and reduce their carbon footprint by retrofitting older public buildings with modern energy-saving improvements.** These features include LED lights, solar panels, geothermal energy, cold-climate heat pumps, and induction stoves. By assessing quality citywide and applying these transformations, cities can conserve energy and reduce emissions while improving living conditions in older buildings.

## IMPACT

Warsaw, Philadelphia, NYC, and a dozen other cities are reducing emissions from public buildings to generate savings on energy bills and improve the well-being of its residents.

In Paris, where retrofits have been completed in 12% of public housing:

**54%** reduction in energy use

**56%** decrease in greenhouse gas emissions, lowering energy bills for those households by €400 annually

## CHALLENGES THIS IDEA CAN HELP YOU NAVIGATE

- Energy inefficiencies and high carbon emissions
- Poor living conditions in older or poorly built buildings

## ADOPT THIS IDEA: 3 KEY STEPS

### Start by

Identifying specific areas or buildings with significant energy inefficiencies.



**Assess and plan** **1**

Evaluate building performance, identify inefficiencies, and develop a strategy to deliver energy-saving systems.



**Deliver upgrades** **2**

Implement the passive and active energy-saving technologies and renewable energy systems needed.



**Evaluate and scale** **3**

Monitor the impact on greenhouse gas emissions and use the results to advocate for expanding retrofits to additional buildings.

