East Side: Community Potential - Home Energy Upgrades

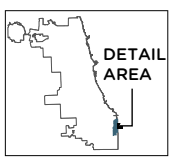
Chicago families can reduce energy use by more than 50%, curb emissions, and benefit from healthy, safe, and resilient homes and communities. This analysis of community energy potential is part of a city residential home energy upgrade plan for single-family and 2-4 flat homes, developed in partnership with the City of Chicago. These home types represent nearly 93% of Chicago's over 438,000 residential buildings. This effort complements the Mayor's climate and energy strategy and the City's commitments for stable, affordable, and healthy homes and neighborhoods. For more info: **ElevateNP.org/Chicago-Retrofit-Roadmap**

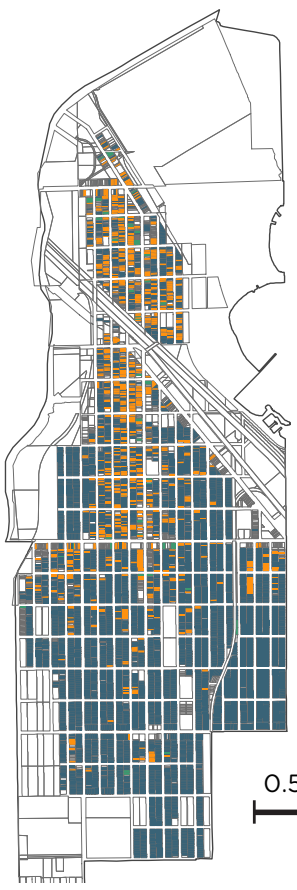
East Side Housing Stock

Chicago's residential building stock has provided homes for generations of families, the majority built prior to 1942. The East Side community has 5,747 residential buildings, 84% of which are single family. The five home types shown below are a combination of the most prevalent and the highest potential for energy savings.

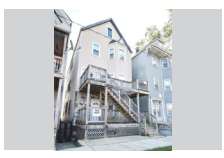
KEY

- Single Family*: **4,851** *(84%)*
- 2-4 units: **844** *(15%)*
- 5+ units: **52** *(1%)*





*Excludes single-family attached homes.
SOURCE: Elevate analysis of Cook County Property Assessor data, 2014. Accessed from City of Chicago Data Portal



2-4 flats,
Pre-1942
Frame construction
Qty: **566**

2-4 flats,
Pre-1942
Brick/masonry construction
Qty: **231**

Single family, Pre-1942
Brick/masonry construction
Qty: **565**

Single family, Pre-1942
Frame construction
Qty: **1,440**

Single family, 1942-1978
Brick/masonry construction
Qty: **2,352**

Upgrade Technical Potential

Single family and 2-4 flat homes in East Side have significant home energy upgrade potential. The upgrades may include improving the building envelope, swapping gas stoves for electric, and electrifying heating to reduce utility costs while adding cooling in the summer. Solar panels can provide additional cost and carbon savings.

	Annual % Energy Savings	Annual Utility Bill Savings	Annual Carbon Savings	Annual Savings Per Home
Energy efficiency and switch to heat pump for heating and cooling	**61%**	**$3.0 million**	**33,000 metric tons**	**58-62%** $400-800 *3-10 metric tons*
Energy efficiency and switch to all electric	**65%**	**$3.3 million**	**35,000 metric tons**	**63-66%** $400-900 *3-10 metric tons*

Energy, bill, and carbon savings for deep home energy upgrades for the above five home types in East Side.

The community area potential was derived by applying optimized modeled energy upgrade outputs from the National Renewable Energy Laboratory's ResStock™ tool to the home types and number of homes in each Chicago community area. For example, an iconic Chicago bungalow with radiators has upgrade packages designed and optimized specifically for its home type.

Across Chicago as a whole, these upgrades can achieve over **$220 million** in annual utility bill savings for Chicago families, and over 2.5 million metric tons of annual carbon savings.

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