

CHICAGOIN' GREEN

How to be morally superior to your neighbors

OUR MISSION IS TO IMPROVE ENVIRONMENTAL
SUSTAINABILITY IN CHICAGO NEIGHBORHOODS

HOW IT WORKS

Environmental Rating

Determine how environmentally friendly Chicago neighborhoods are based on their energy usage (primarily focusing on electricity and natural gas), renewable energy sources, proximity to farmer's markets, access to recycling bin routes, etc.

Improvement Plan

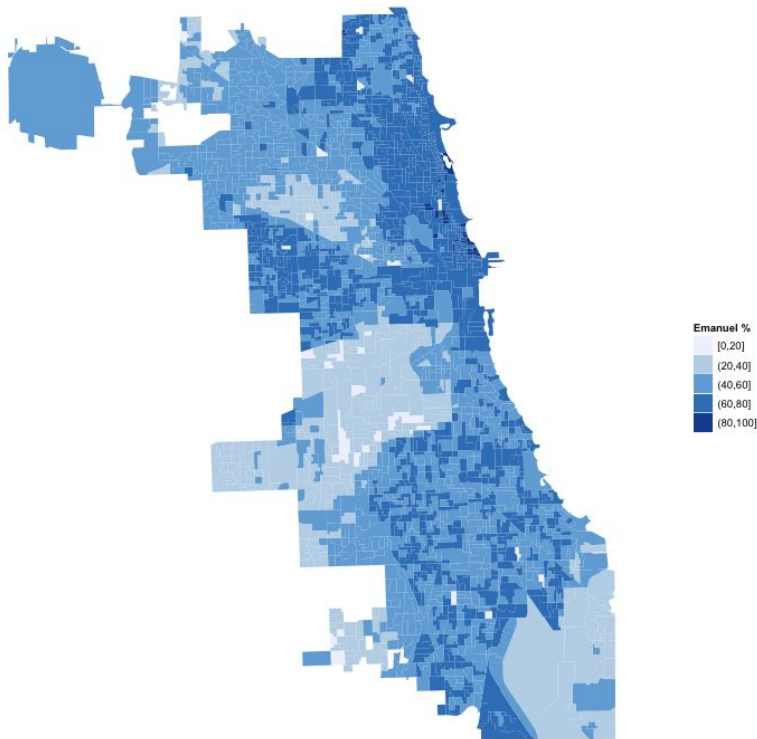
Provide suggestions that families and businesses can use in order to decrease the energy consumption in their neighborhood. This will include information regarding how much money and energy (electricity, natural gas, etc.) will be saved on a yearly basis.

Interactive Website

Present this information using a website with an interactive map. Users can interact with the website by clicking on their neighborhood which will then provide information on ways they can decrease their energy dependence.

CHOROPLETH MAPPING WILL BE USED TO SEPARATE NEIGHBORHOODS

Chicago Mayoral Race 2011



The variable used will be the environmental rating. The map will easily show which neighborhoods have the best/worst environmental rating.

Source: <http://www.r-bloggers.com/mapping-the-chicago-mayoral-election/>



THE DATA

City of
Chicago +
NREL

DATA SOURCES

City of Chicago

Use API to gather data about energy usage, recycling centers & collection routes, and farmers markets.

NREL

Gather data on photovoltaic (PV) installs and costs by county/zip code.

NREL (continued)

Gather data on the performance of PVs (AC monthly usage).

DATA SOURCES

NREL (continued)

Utility rates for a particular location can be extracted. This can provide information on the electricity & natural gas rate.

Crawling Sites

Websites that give tips on how to save electricity and gas.

Crawling Sites

The amount of money saved or the level of impact will be converted to an amount of electricity/gas usage. Based on this amount the environmental rating will improve.

NEW TECHNOLOGIES

Website

Django

- Used to implement website

Mapping

PANDAS Library

- Data analysis library for maps building

Basemap

- Part of matplotlib
- Plots 2d data on maps

Sorting

Quicksort Algorithms

- Used to rank neighborhoods by energy efficiency

TIMELINE

