



2022 CAP | CHICAGO CLIMATE ACTION PLAN
★ ★ ★ ★ | **ADDENDUM**

Impacts of the Inflation Reduction Act on Chicago's 2022 Climate Action Plan



TABLE OF CONTENTS

3	Introduction
---	---------------------

6	Main Takeaways
---	-----------------------

9	Pillar 1: Increase Access To Utility Savings And Renewable Energy, Prioritizing Households
---	--

12	Pillar 3: Deliver A Robust Zero-Emission Mobility Network That Connects Communities And Improves Air Quality
----	--

15	Pillar 4: Drive Equitable Development Of Chicago's Clean-Energy Future
----	--



INTRODUCTION

In April 2022, City of Chicago released an updated Climate Action Plan (2022 CAP) to set new climate and environmental equity priorities.

The 2022 CAP presented the actions that the City would take to reduce Chicago's greenhouse gas (GHG) emissions 62% by 2040 (from a 2017 baseline) while enhancing economic inclusion, reducing pollution, increasing equitable access to critical infrastructure, and strengthening community health and resilience. In August 2022, President Biden signed the Inflation Reduction Act (IRA), representing the most transformative climate and energy law to pass in US history. The IRA invests \$369 billion to support the transition to clean energy and a greener economy across the country. The scale of this investment is necessary to meet the urgency of the climate crisis; a crisis that requires accelerated actions from all. Given the opportunity the IRA presents, the City of Chicago set out to understand how this bill will support and accelerate the existing 2022 CAP climate goals. Importantly, fully leveraging the IRA's opportunities requires proactive action by the City and partners to access the tax credits, competitive grants, and rebates that can support - and accelerate - Chicago's emissions reduction targets.



The City worked with Bloomberg Associates, C40 Cities, and Slipstream to review national analyses on IRA's impact on carbon emissions and analyze the 2022 CAP's actions to understand how the IRA could assist Chicago in accelerating or exceeding its 2022 CAP goals. IRA funding is dependent on competitive grants, formula grant allotments, and individuals, businesses and organizations filing for tax credits. The tax credits are also available through direct pay, making local governments and other tax-exempt entities such as non-profits eligible to receive a direct monetary credit equal to the amount of the tax credit. While several provisions and specific federal guidance of the IRA have yet to be released, this addendum provides an overview of the expected impact of the IRA on Chicago's goals for an equitable climate transition and is the first in-depth assessment of the IRA's impact on a major city's CAP.

For purposes of estimating impact and federal funding expected to flow through Chicago, overall federal funding levels are downscaled by allocating resources proportional to the number of homes, businesses, or overall consumption in Chicago. This downscaling includes a range of expected minimum and maximum funding to reflect the uncertainty around the exact distribution of federal funding to Chicago.

Chicago's 2022 CAP is oriented around five key pillars. This addendum focuses on three of these pillars (titles abridged below), which are most directly affected by IRA provisions:

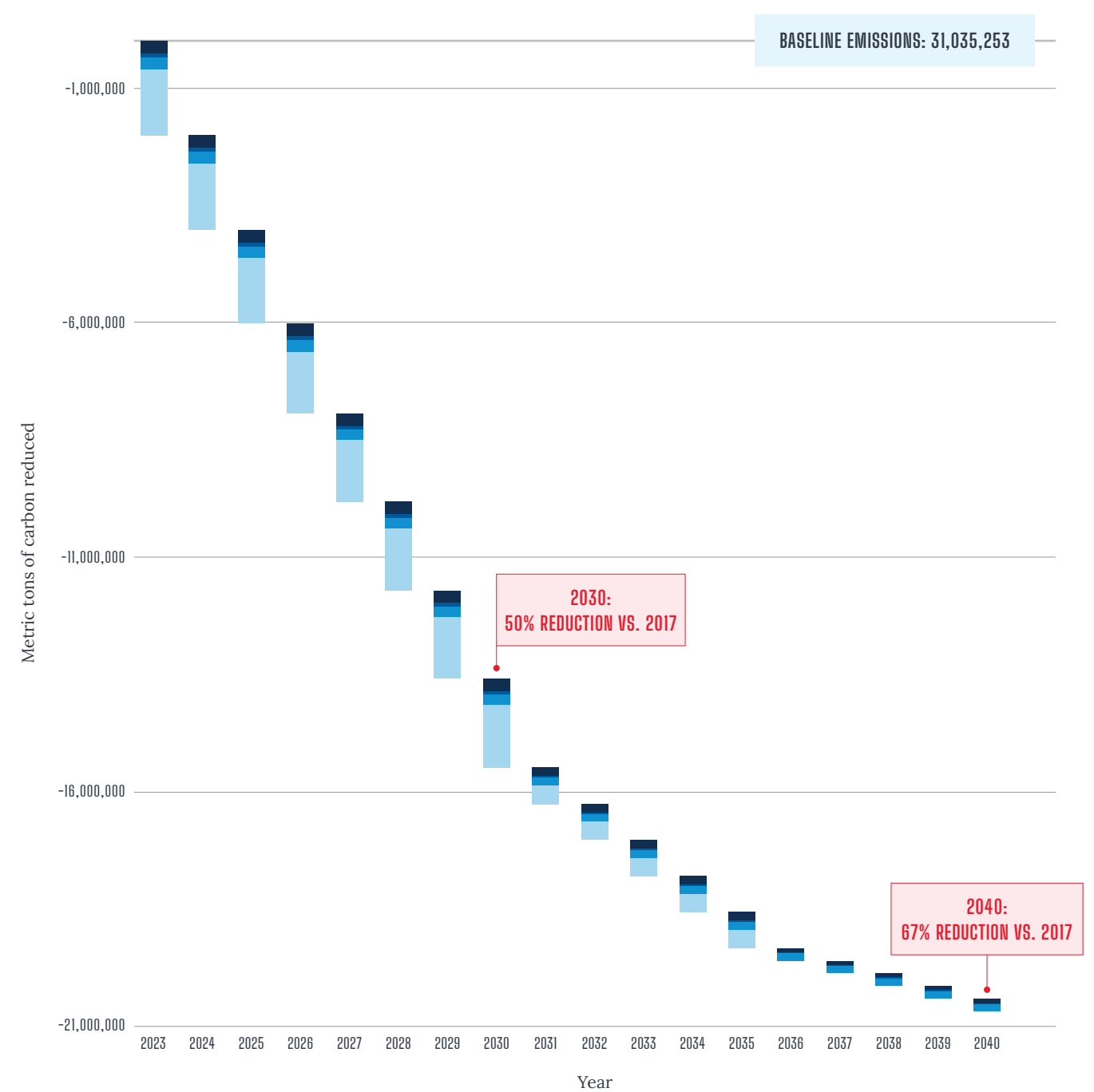
PILLAR 1 Increase access to utility savings

PILLAR 3 Deliver a zero-emission mobility network

PILLAR 4 Drive equitable development of Chicago's clean energy future

The remaining pillars ("Build circular economies to create jobs and reduce waste" and "Strengthen communities and protect public health") are critical to meeting the City's climate and sustainability goals, but they are less impacted by the IRA.

Estimated Carbon Reduction Impact from 2022 CAP and Inflation Reduction Act



- Increase access to utility savings and renewable energy, prioritizing households
- Build circular economies to create jobs and reduce waste
- Deliver a robust zero-emission mobility network that connects communities and improves air quality
- Drive equitable development of Chicago's clean-energy future

MAIN TAKEAWAYS

The IRA can have a significant impact on Chicago's existing carbon reduction goals. Most notably, the IRA will provide an influx of capital through potential federal grants and tax credits that enables the City of Chicago to meet and exceed its existing ambitious goals. Furthermore, the IRA's prioritization of low-income neighborhoods for grant programs can specifically support Chicago's effort to focus on equitable outcomes throughout the CAP.

This federal funding, along with the recent financial investment in climate and EJ initiatives via the Chicago Recovery Plan, can facilitate additional carbon reductions to reach an overall GHG reduction target of 50% by 2030 en route to a 67% reduction of carbon emissions by 2040 relative to a 2017 baseline. This compares to the 62% reduction set forth in the 2022 CAP.



The Inflation Reduction Act could enable Chicago to meet and exceed the 2022 CAP emissions reduction targets by approximately **1.5 million metric tons CO₂e**.

That would bring Chicago's emissions reduction target to **67% by 2040**.

These additional potential reductions are driven by two major components:

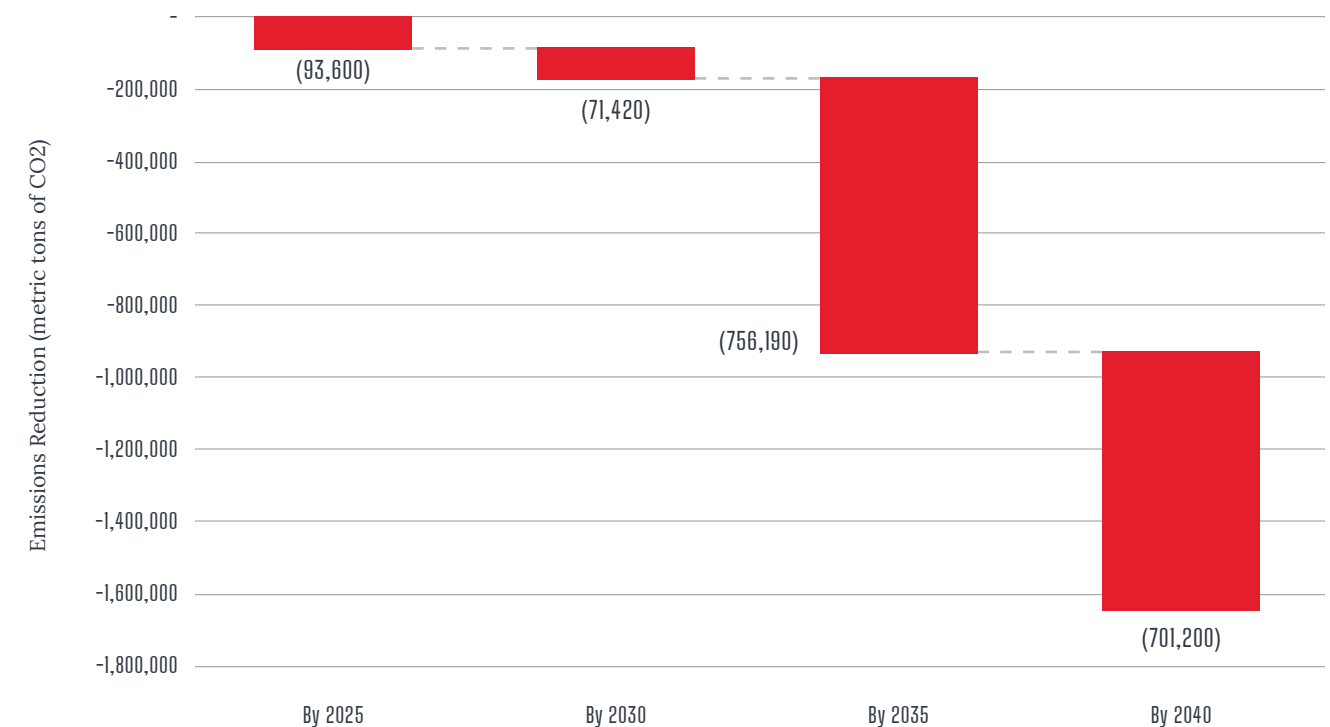
1. **Commercial building emissions reductions** through the City's 2022 commitment to implement building performance standards and complementary decarbonization policies as well as energy efficiency tax incentives available through IRA.
2. **Higher expected electric vehicle adoption rates** across all vehicle types catalyzed by IRA tax credits for vehicles and charging infrastructure.*

*EV adoption would be further catalyzed by the fuel economy standards proposed by the Environmental Protection Agency on April 12, 2023. If finalized, these standards would grow the share of EVs across all vehicle types, including to an estimated 67% of new light-duty vehicles sales by 2032.

To maximize the impacts of the IRA and achieve the additional carbon reductions, the City should work with a variety of partners to ensure that residents, community-based organizations, and businesses are aware of and leverage the funding programs available to them to the greatest extent possible. Beyond carbon reductions, this will lead to job creation in the city, savings on household energy bills, and direct monetary assistance for households and businesses to engage in renewable energy or energy efficiency upgrades.

To ensure these benefits are accessible to all, the City should focus on developing meaningful partnerships and educational opportunities to ensure businesses and residents are aware of tax credit opportunities. At the same time, the City should partner with the State of Illinois, local community-based organizations, and other partners to apply for grants as eligible.

Additional Carbon Reductions from IRA





PILLAR

1

INCREASE ACCESS TO UTILITY SAVINGS AND RENEWABLE ENERGY, PRIORITIZING HOUSEHOLDS

The IRA provides significant funding, primarily through tax credits and rebates, to businesses, residents, and community-based organizations to decarbonize their buildings and add renewable energy onsite. The law prioritizes funding for low-income neighborhoods and households, either through direct rebate programs or bonus credits on tax credits.

2022 CAP ACTION

Retrofit residential buildings, prioritizing low-to-moderate households

Relevant IRA funding provisions:

- Home Energy Performance-Based Whole House Rebate Program (HOME Rebate)
- High-Efficiency Electric Home Rebate
- Energy Efficiency Home Improvement Credit

A significant portion of IRA funding is centered around state rebate programs which will be administered through state energy offices and tax credits for individual households. This funding can assist the City in meeting residential retrofit goals defined in the 2022 CAP and bolster the City's commitment to focus funding on retrofits for low-income households.

Roughly 40% of IRA residential retrofit funding is specifically reserved for low-income households. Through the HOME Rebate Program and High-Efficiency Electric Home Rebate program, the total amount of funding flowing to Chicago households from state programs is estimated to be between \$50 and \$80 million. In addition, an estimated \$10 to \$20 million will be available in tax credits through the Energy Efficiency Home Improvement Credit.

2022 CAP ACTIONS

Increase Chicago-based community renewables; install co-owned community solar projects

Relevant IRA funding provisions:

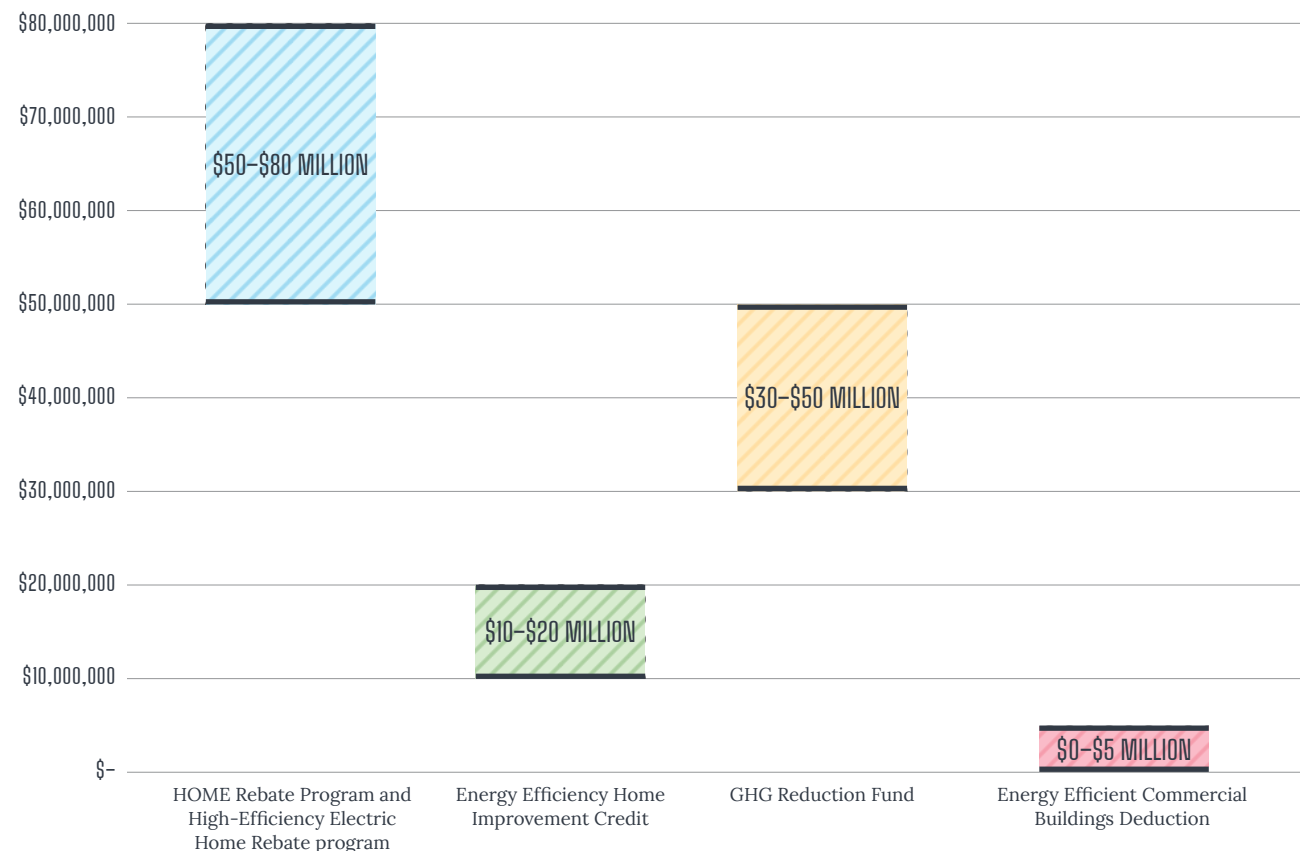
- Bonus credits through the Investment Tax Credit and the Production Tax Credit
- Greenhouse Gas (GHG) Reduction Fund

The IRA encourages more inclusive pathways to renewable energy adoption by availing funds to community-based organizations and municipalities. Also, by prioritizing funding for installations in low-income neighborhoods, the IRA helps to distribute access to new technologies, jobs, and other related benefits. The GHG Reduction Fund, which is available to city governments, states, and eligible nonprofits, could provide between \$30 and \$50 million for installations within the city. The clean energy tax credits would provide additional funding

on top of the GHG Reduction Fund amounts.

The tax credits offer bonus credits for up to 1.8 gigawatts annually for projects located in low-income neighborhoods or that are part of a low-income or affordable housing development. These tax credits are available via direct pay to community nonprofits, governments, and other tax-exempt organizations. By marketing these two funding sources and supporting their use in Chicago, the City could help facilitate the installation of an additional 90 megawatts of community renewables by 2032.

Potential Chicago CAP Funding Impact Range for Selected IRA Programs



2022 CAP ACTIONS

Retrofit 20% of total commercial buildings by 2035

Relevant IRA funding provisions:

- Energy Efficient Commercial Buildings Deduction (179 D Energy Efficient Commercial Buildings Deduction)

The City committed to passing a Building Performance Standard (BPS) by 2024 as part of its participation in the National Building Performance Standard Coalition. The BPS will build upon the existing Chicago benchmarking policy to require large building owners to take action to reduce overall building energy use. The energy efficient commercial buildings deduction through the IRA provides tax credits directly to building owners that can be applied to upgrades needed to comply with the BPS policy. Estimates downscaled from analysis by the Congressional Budget Office show that up to \$5 million dollars could flow to commercial businesses through these tax credits.*

receive bonus credits if they reduce energy use more substantially.

A BPS that requires an energy use reduction of 30% for buildings above 50,000 square feet could reduce citywide commercial building energy use by nearly 20% by 2035. While the City has not yet developed the specifics of its BPS policy, such a policy could result in a 4% reduction carbon emissions by 2035 compared to a 2017 baseline.

Furthermore, the IRA tax credit has the potential to drive additional reductions beyond this by (1) increasing the natural rate of retrofits for buildings not covered by the BPS and (2) helping make electrification upgrades more affordable for commercial building owners. The increased affordability of electrification measures would increase the overall impact of the BPS by eliminating more on-site GHG emissions. A BPS that includes buildings smaller than 50,000 square feet or a higher percent reduction requirement would achieve additional energy savings impact.

Businesses will be eligible for the tax credits if they reduce overall building energy use by 25% and can



*As tax credits are not capped, their total value may exceed this range.

DELIVER A ROBUST ZERO-EMISSION MOBILITY NETWORK THAT CONNECTS COMMUNITIES AND IMPROVES AIR QUALITY

Transportation funding through the IRA is primarily focused on vehicle upgrades. However, other federal funding for infrastructure improvement, such as developing improved transit stations and improved transit stations, trails, and bikeways, is also available through the Infrastructure Investment and Jobs Act (IIJA). These funding opportunities can support Chicago's goals to expand bikeways and off-street trails, increase micromobility and bike trips, and enable Chicagoans to walk, bike, or take transit for more trips throughout the city.

2022 CAP ACTIONS

Electrify 100% of the City's fleet by 2035, achieve zero-emission transit fleets across Chicagoland by 2040

Relevant IRA funding provisions:

- Commercial Clean Vehicles Credit
- Clean Heavy Duty Vehicle Program

Through IRA, cities and transit organizations qualify for direct pay tax credits to cover part of the cost of electric vehicles. In addition to this funding,

the City will be eligible to apply for funding to cover the incremental cost of transitioning heavy-duty vehicles through the Clean Heavy Duty Vehicle Program. Both of these programs can help the City and Chicago Transit Authority meet the goals to electrify their fleet fully.



2022 CAP ACTIONS

Overall Electric Vehicle Adoption

Relevant IRA funding provisions:

- Clean Vehicle Credit
- Previously-Owned Clean Vehicles Credit
- Commercial Clean Vehicles Credit

Beyond the goals of vehicle electrification within the 2022 CAP, the IRA will accelerate EV adoption with general consumers as well. All governments, businesses, and residents are eligible for IRA tax credits towards passenger and commercial vehicles (new and previously-owned). Additionally, the IRA and IJIA will provide funding for EV charging infrastructure which will support adoption (see Pillar 4).

The expected impact of this accelerated adoption on overall carbon emissions is significant, leading to a projected 4% reduction in emissions by 2040 relative to 2017.

Through federal tax credits and additional EV incentives through the State of Illinois and the electric utility, both required by the state of Illinois' Climate and Equitable Jobs Act (CEJA), this analysis estimates that close to 25% of passenger vehicles will be electric vehicles by 2030. Between 2030 and 2040, this is expected to increase to roughly 70% of all passenger vehicles being electric. The impact on heavy-duty and short-haul vehicles is smaller, but still represents a significant increase in adoption compared to business-as-usual prior to IRA passage.



PILLAR

4

DRIVE EQUITABLE DEVELOPMENT OF CHICAGO'S CLEAN ENERGY FUTURE

The largest portion of IRA funding is dedicated to shifting from fossil fuels to low-carbon energy sources to decarbonize the electricity grid. Given that the City of Chicago is already committed to ambitious goals to become 100% renewable citywide by 2035, this funding is vital to help hit those goals and the increasing demand for building and transit electrification.

2022 CAP ACTIONS

Achieve 100% clean renewable energy community-wide by 2035

Relevant IRA funding provisions:

- Investment Tax Credit
- Production Tax Credit

A large portion of IRA funding goes towards decarbonizing the US electric grid, both to help install renewables and convert fossil fuel power plants to clean power plants. To hit the City's ambitious goal of 100% renewable electricity by 2035, Chicago and surrounding areas need to install more than 5,000 megawatts beyond the existing megawatt goals in the 2022 Climate Action Plan. IRA funding paired with the state's funding through CEJA for 100% renewable by 2045 are vital to achieving this goal. The City must work closely with the electric utility, nonprofit organizations and other stakeholders to ensure that renewable energy technologies are affordable and accessible to all households.



2022 CAP ACTIONS

Enable 2,500 new public passenger electric vehicle charging stations by 2035

Relevant funding provisions:

- Alternative Fuel Vehicle Refueling Property Credit (IRA)
- National Electric Vehicle Charging Formula Program (IIJA)
- Charging and Fueling Infrastructure Grants (IIJA)

Funding through the IRA paired with CEJA rebates will lead to significant adoption of electric vehicles through 2040. This impact on personal adoption of vehicles will increase the need for electric vehicle charging stations in the city substantially to over 10,000 by 2035.

The IRA and IIJA both provide significant funding to support EV charging infrastructure, in furtherance of Chicago's CAP goal of 2,500 new EV stations. The IRA provides tax credits for installation of chargers in low-income neighborhoods while IIJA provides funding to municipalities or states through formula and competitive grants. This funding can fuel the addition of several thousand chargers across Chicago.* Currently, EV charging infrastructure is not evenly distributed in the city, so this funding will be particularly beneficial in communities where free or no-cost charging infrastructure can accelerate an equitable uptake in EV adoption.

As Chicago communities see greater demand for electric vehicles and charging infrastructure, there is an immense opportunity to design programs that support local, emerging businesses as they grow in this industry.

*Estimated number will depend on the type of charger, i.e. Level 2 or fast chargers, and funding via state-level grants and tax credits.



