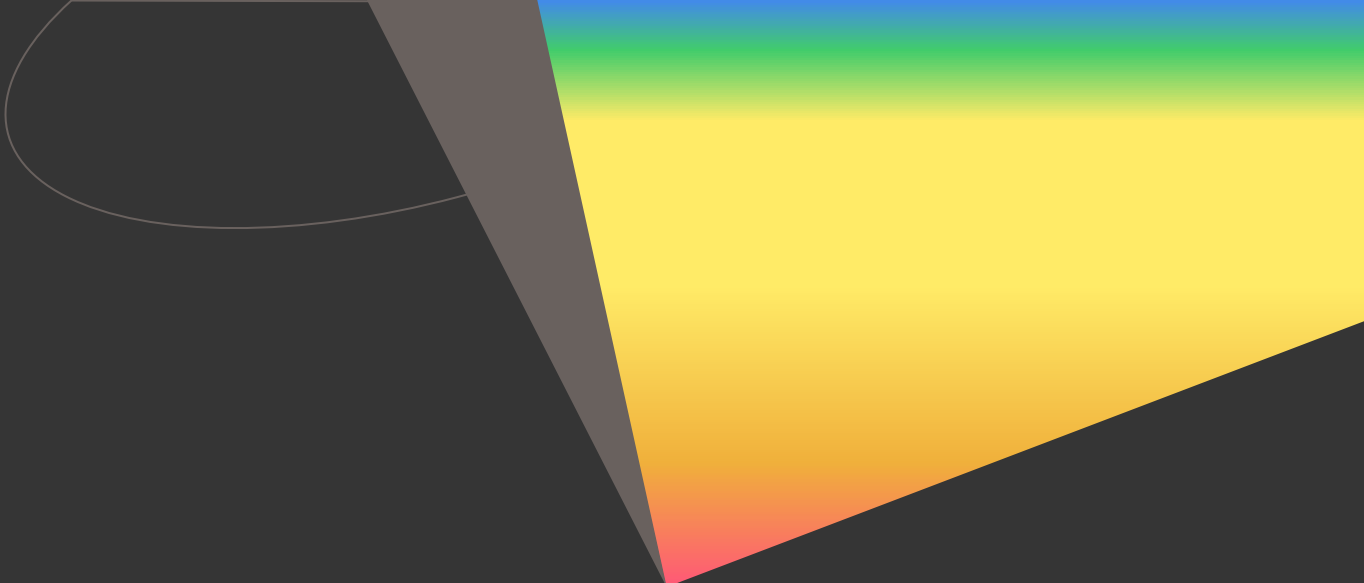
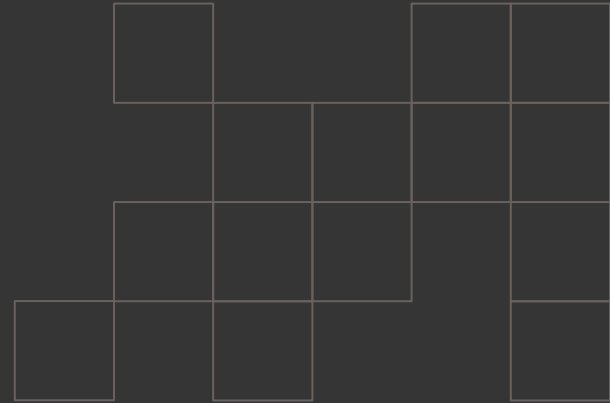


Wren / Madisen / Morgan
ENVM 6100

Chicago Climate Action Plan



Recommendations



Contents

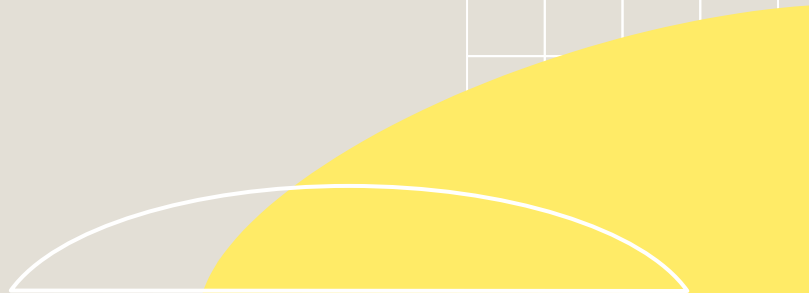
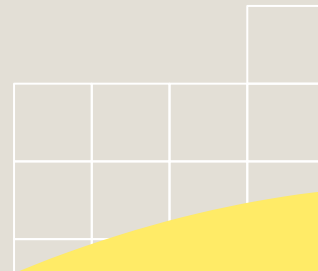
A decorative grid pattern of light gray squares with white borders, arranged in a stepped fashion on the left side of the page.

1. Interventions

2. Energy Strategy

3. Peer Cities

4. Discussion Question



Chicago's Context

An aerial photograph of the Chicago skyline at sunset. The sky is a mix of orange, yellow, and blue, with the sun low on the horizon. The city's skyscrapers are silhouetted against the bright sky, and the Chicago River is visible on the left side of the frame.

- A city on the Lake Michigan water
- Population Size: 2.74 Million (2024 Census)
- Chicago River runs through the city
- Part of C40 Cities
- Not an ICLEI Member
- Facing Water Quality, Water Quantity, and Urban Heat Island Effects Worsening with Climate Change
- First climate action plan in 2008

Element One:

Transportation / Housing / Waste
Interventions



Transportation Intervention

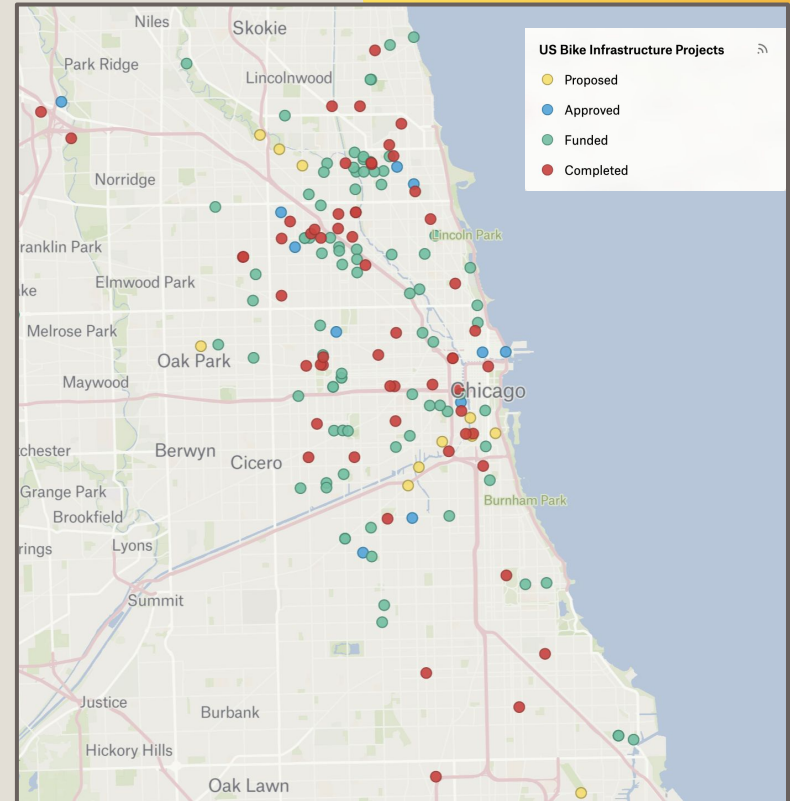
Timeline:

- 2026/2027: planning
- 2027/2028: building
- 2029/2030: evaluation

KPI's

- Miles of new protected bike facilities completed by 2030
- % of new protected lane miles in low- to moderate-income neighborhoods
- Community survey to investigate experience

National Bike Project Tracker



Household Size	1	2	3	4	5
Annual Income (2025)	\$67,150	\$76,750	\$86,350	\$95,900	\$103,600

- **Add a tier** serving households earning less than 67k
- Shift from registration windows to a **continuous intake model**
- Set a mandatory retrofit target: at minimum **50% energy use reduction** per home, not just appliance swaps

KPI's

Number of homes receiving deep retrofits annually

Average energy use reduction per retrofitted home

Number of homes receiving retrofits in lowest income tier



Waste Intervention

- **Phased threshold increases:** Raise the diversion floor incrementally (65% / 75% / 90%)
- **Material-specific diversion requirements :** Require diversion across at least 3 material types (e.g., wood, drywall, aggregates) to prevent contractors from gaming the weight threshold by recycling only heavy materials like concrete while landfilling everything else
- **Mandatory deconstruction plans + third-party verification :** Require a waste management plan, and have verification to confirm projects are following the plan

KPI's

Citywide C&D diversion rate by year (% by weight), tracked against thresholds

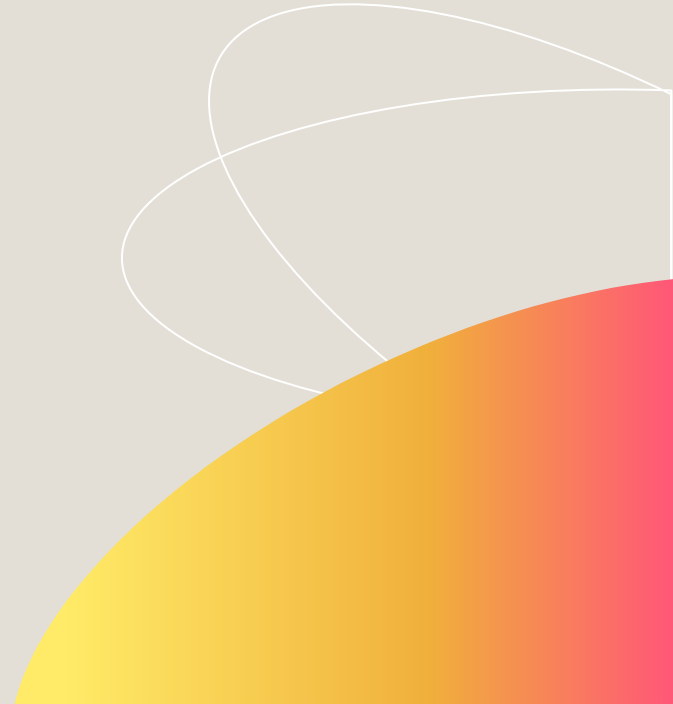
Diversion rate broken down by material type

Share of projects meeting threshold vs. falling short

Number of certified C&D recycling facilities operating in Chicago

Element Two:

Energy Strategy

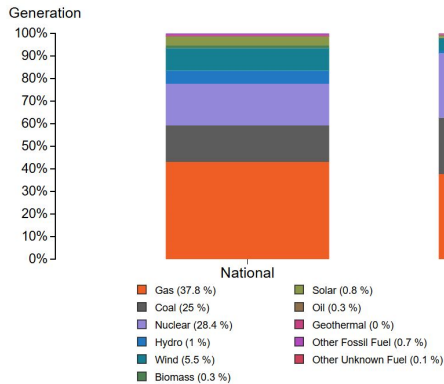


Energy Utility

Chicago eGrid Subregion : RFC West

Fuel Mix

This chart compares fuel mix (%) of sources used to generate electricity in the selected [eGRID subregion](#) to the national fuel mix (%).



Fuel (RFCW Generation %)



eGrid
Subregion

CO₂e
(kg/kWh)

RFCW

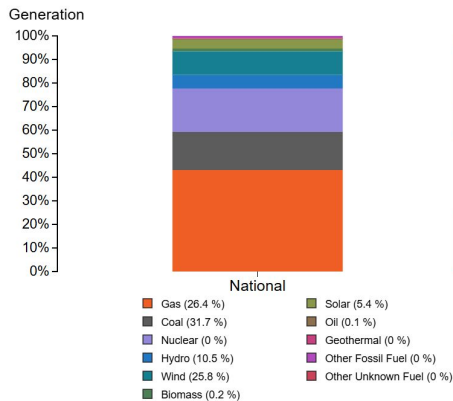
0.802

RMPA

0.739

Fuel Mix

This chart compares fuel mix (%) of sources used to generate electricity in the selected [eGRID subregion](#) to the national fuel mix (%).

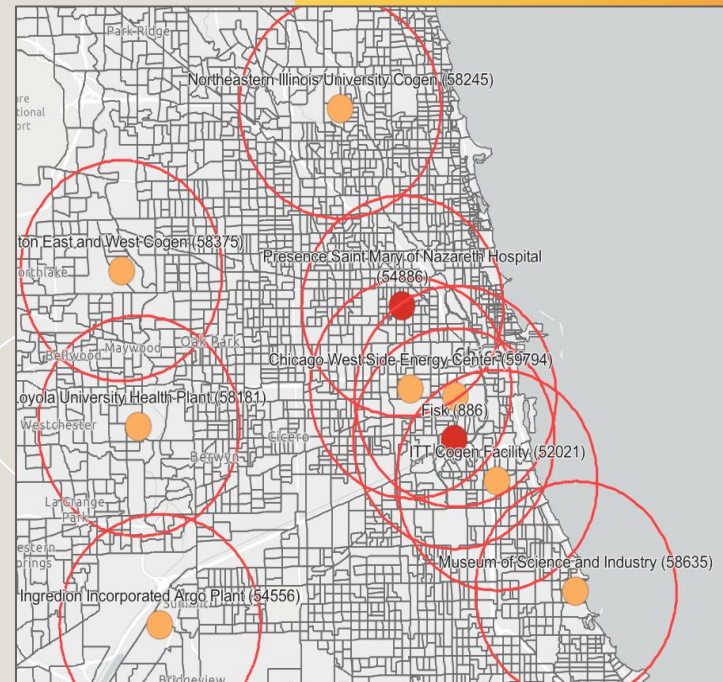


Fuel (RMPA Generation %)



Energy Utility

- Electric Utility Companies
- Provided municipal aggregation options until 2015 -> **Reinstate municipal aggregation**
- **Power Plants within City Limits:** Seven oil & gas power plants within Chicago city limits
 - Concentrated in South side disadvantaged communities
 - Stricter emissions regulations or transitioning away from oil & gas fuels will also have air pollution impacts for surrounding communities





Energy Intervention

- **Chicago Solar Access Fund:** A dedicated municipal fund that would directly subsidize subscriber costs for households at or below 80% of Median Income
- **Renter Solar Subscription Mandate:** Require large multifamily landlords receiving City subsidies or affordable housing tax credits to enroll tenants in a community solar subscription program
- **City-ILSFA Coordination:** Create a partnership between Chicago and the Illinois Solar For All to ensure environmental justice communities are prioritized

KPI's

Number of low-income households enrolled

Share of homeowners vrs renters

Average energy costs for enrolled households / units vrs unenrolled

Demographic breakdown of enrollment

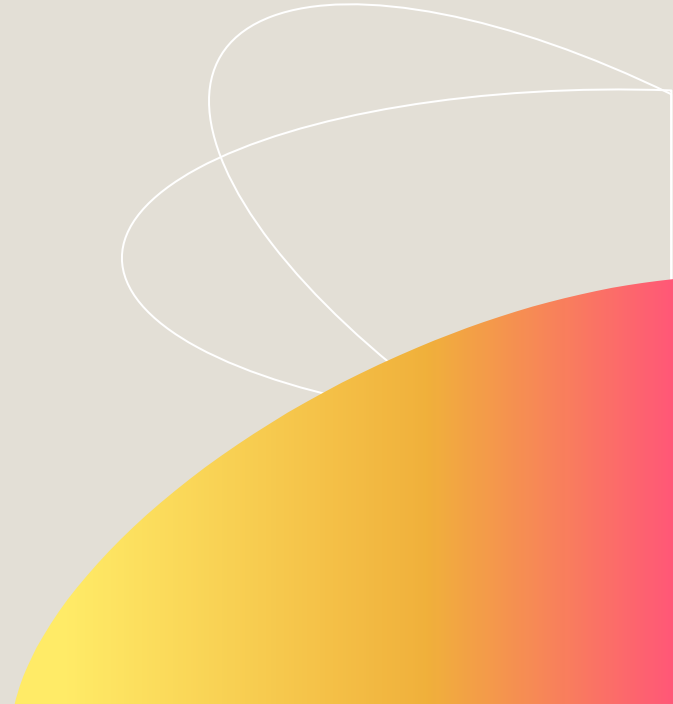
Energy Intervention

- **Sustainable Chicago Geothermal:** A project led by Blacks in Green installing neighborhood scale geothermal heating and cooling in a historically disadvantaged majority black community
- **Recommendation:** Partner with Blacks in Green to support expansion and replication of similar infrastructure across Chicago



Element Three:

Peer Cities



Peer City 1: Ann Arbor

Reasoning:

- Similar Geographic Area and Climate Issues

Similarities in Climate Action Plans:

- Renewable Energy Interventions
- Community Solar Projects
- Transportation Emissions Reductions
- Circular Economy to Reduce Waste

Unique to Ann Arbor:

- Transition Affordable Housing Sites to Net Zero Energy
- Plant-Based Diet



Peer City 1: Seattle

Reasoning:

- Big American Coastal City
- Similar Climate Issues

Similarities in Climate Action Plans:

- Transportation Emissions Reductions
 - Zero Emission Fleet
- Waste Reduction

Unique to Seattle (King County CAP):

- Data-Informed Decisions
- Detailed and Specific Climate Solutions for Native Species and Ecosystems
 - Salmon
 - Coastal Resiliency



Peer City 1: Toronto

Reasoning:

- Big Canadian Coastal City
- Similar Climate Issues
- C40 Member

Similarities in Climate Action Plans:

- Transportation Emissions Reductions
- Waste Reduction and Diversion

Unique to Seattle (King County CAP):

- Climate Advisory Services
- Utility Led Action



**Is it a better strategy for
Chicago to focus on private
sector partnerships or
municipal actions?**



Thank you! Any Questions?

