

Climate Focus Area

January 9, 2020

Agenda

CMAP's climate focus area

Scale of climate issues

Discussion

Next steps



CMAP focus areas

Transportation funding

Regional economic competitiveness

Climate

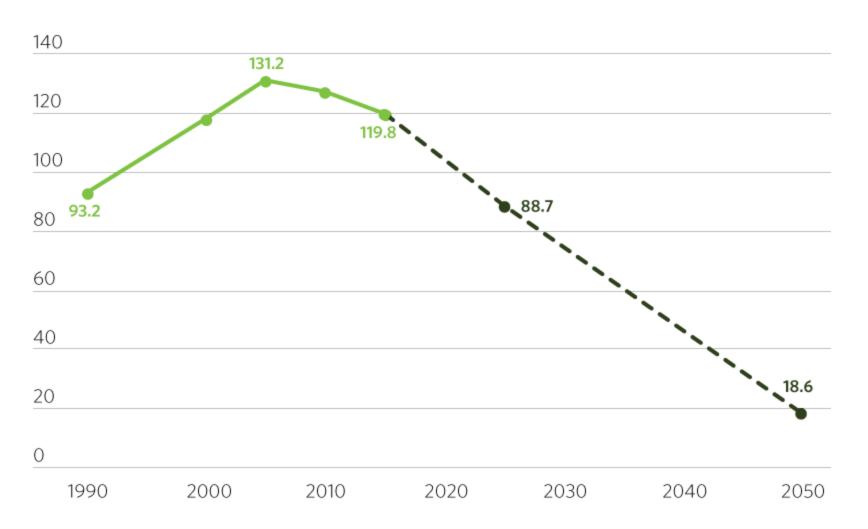


Scale of climate issues

Greenhouse gas emissions for Chicago region, MMTCO₂e

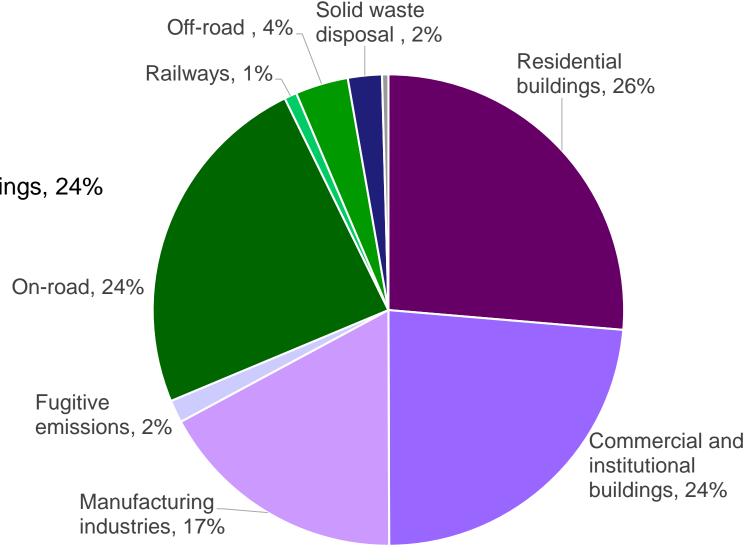
Actual

Target



Greenhouse gas emissions by subsector for Chicago region, 2015

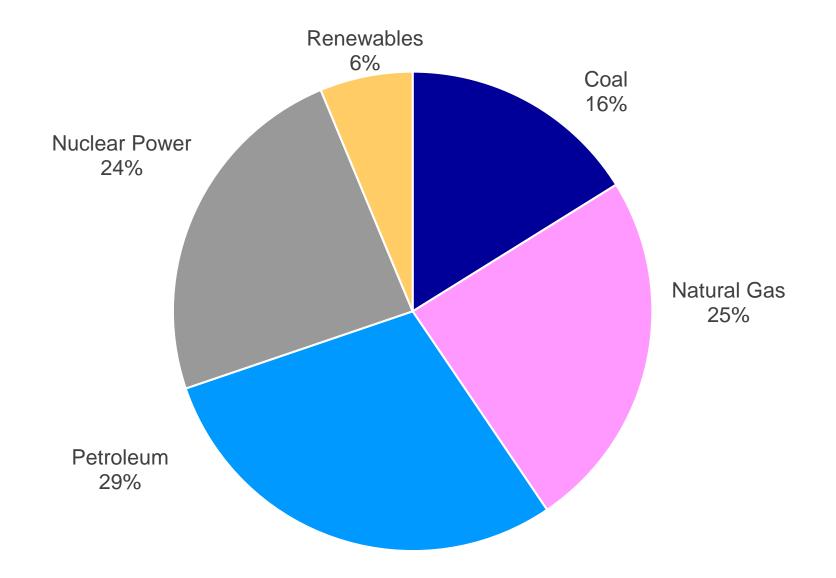
- Residential buildings, 26%
- Commercial and institutional buildings, 24%
- Manufacturing industries, 17%
- Fugitive emissions, 2%
- On-road, 24%
- Railways, 1%
- Off-road, 4%
- Disposal of solid waste, 2%
- Other, 0.43%*





Energy consumption estimates by source for State of Illinois, 2017

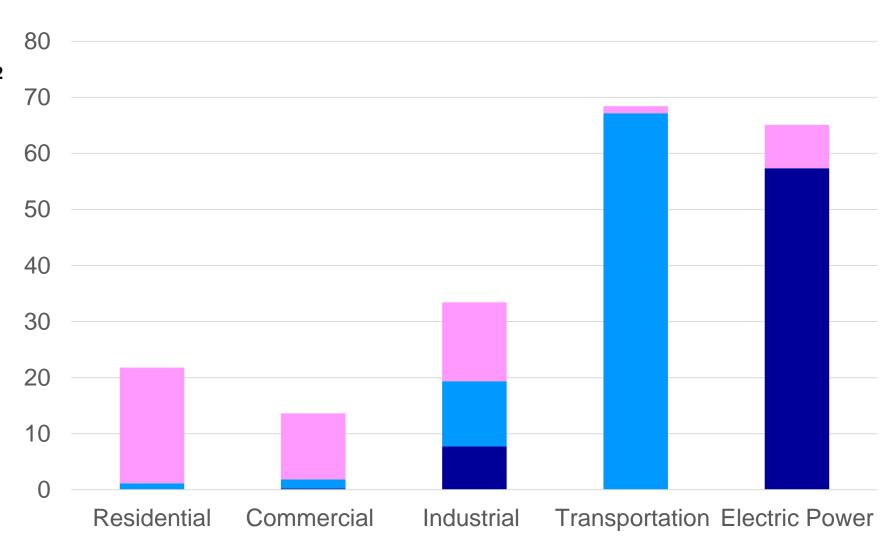
- Coal, 16%
- Natural Gas, 24%
- Petroleum, 29%
- Nuclear, 24%
- Renewables, 6%





Carbon dioxide emissions data by subsector for State of Illinois, 2017, MMTCO₂

- Coal
- Petroleum products
- Natural gas



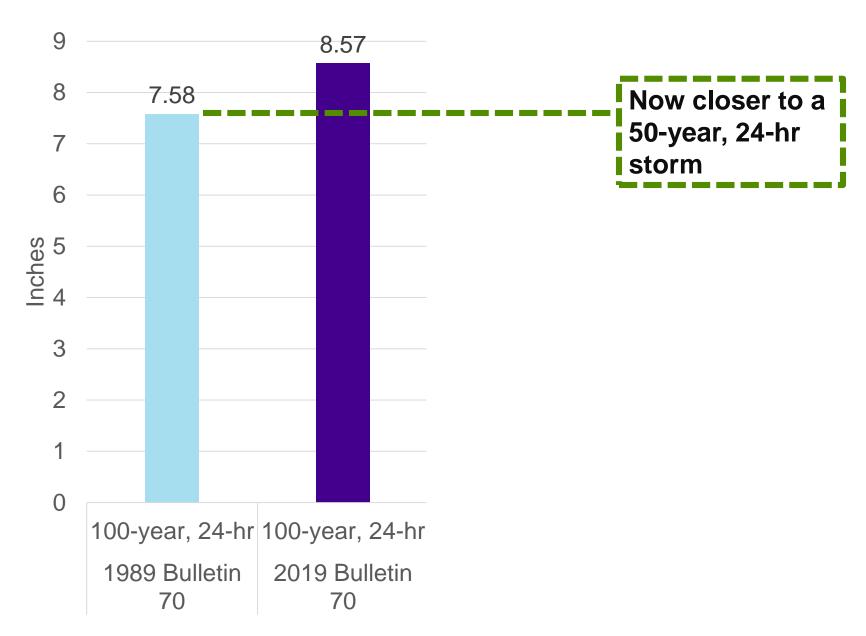


			A commitment to electrification and decarbonization makes it substantially easier to meet our energy demands.			
	Electricity generation without fossil fuels eliminates ~25 percent of our primary energy needs.	Electrification of cars, light trucks and freight trucks eliminates ~16 percent of our primary energy needs.	Electrification of heating using heat pumps for homes offices and some industry eliminates 6-7% more.	The 6% of our energy use that currently finds, mines, refines, and transports fossil fuels won't be needed.	LED lighting (1.5%) and industrial efficiency and advanced manufacturing eliminates another 5%.	
Before: 100 Quads Required	75 Quads	59 Quads	53 Quads	47 Quads	42 Quads	After : 42 Quads Needed.

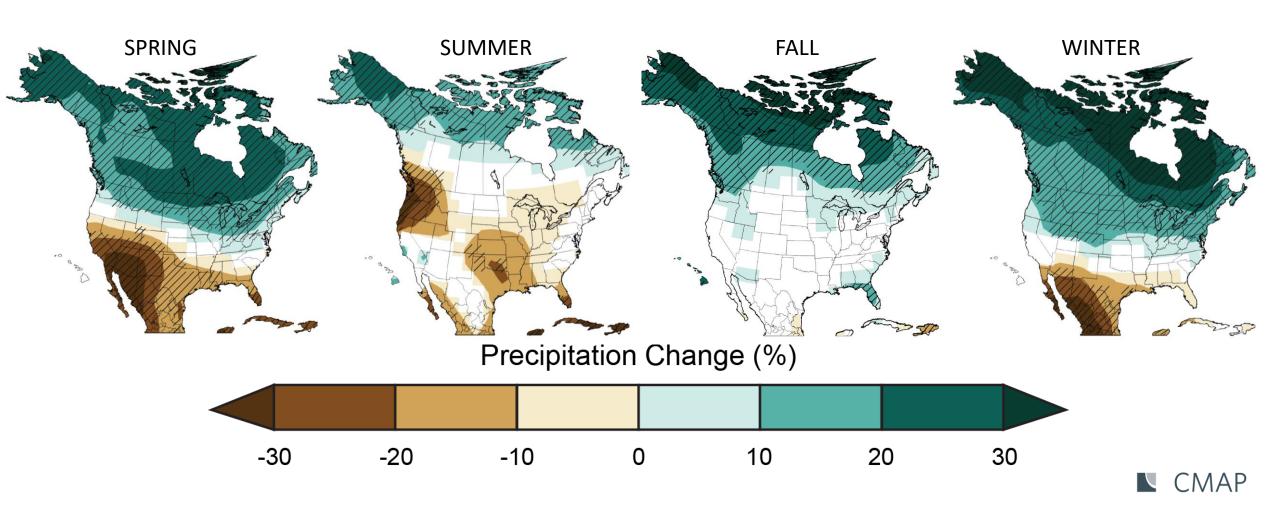
Comparison of rainfall amounts in Northeast Illinois

Older standard

Updated Bulletin 70

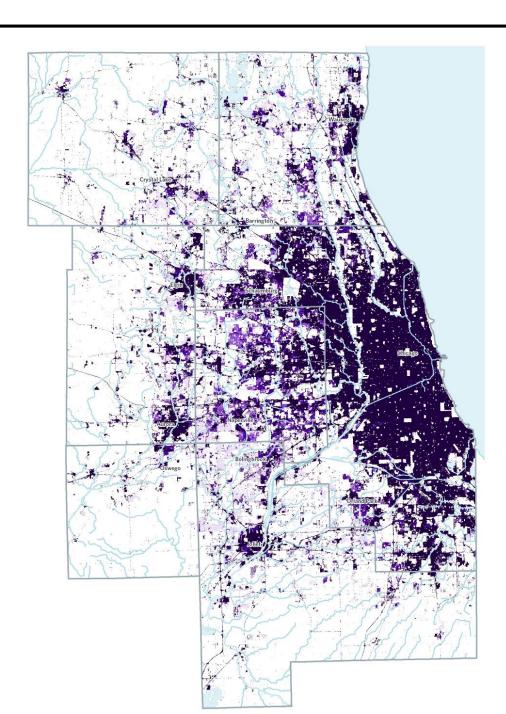


Higher emissions (A2) scenario, 2071-2099



Age of first development

- Prior to 1974
- **1974 1981**
- **1982 1991**
- 1992 2012





Discussion



1. What are the big actions that need to occur and who are the influential actors in that space in Illinois or the Chicago region?

CMAP program areas

Planning Resources

Collaborating with communities to address local and regional challenges

Policy Development

Seeking solutions to complex regional issues

Research and Innovation

Creating new tools and methods to inform data-driven decisions

Transportation Programming

Investing the region's federal transportation funds efficiently and effectively

Leadership Development

Expanding the ability of individuals and communities to succeed

Civic Coordination

Bringing communities and partners together to achieve common goals



2. Which of these are aligned with one of more of CMAP's six program areas?

3. Which present the <u>best</u> opportunities for CMAP to advance action / change?



4. Who are the critical people/organizations CMAP should be communicating with as we develop our approach?



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