

Cook County's Clean Energy Plan

Feasible. Responsible. A model for others.

A Plan for 100% Renewable Electricity
and a Carbon Neutral Footprint for Cook County Buildings
Jamie Meyers, Energy Manager, Cook County

Cook County's Goals

A reduction in carbon emissions by **45%** by **2030**



Achieving carbon neutrality by **2050**



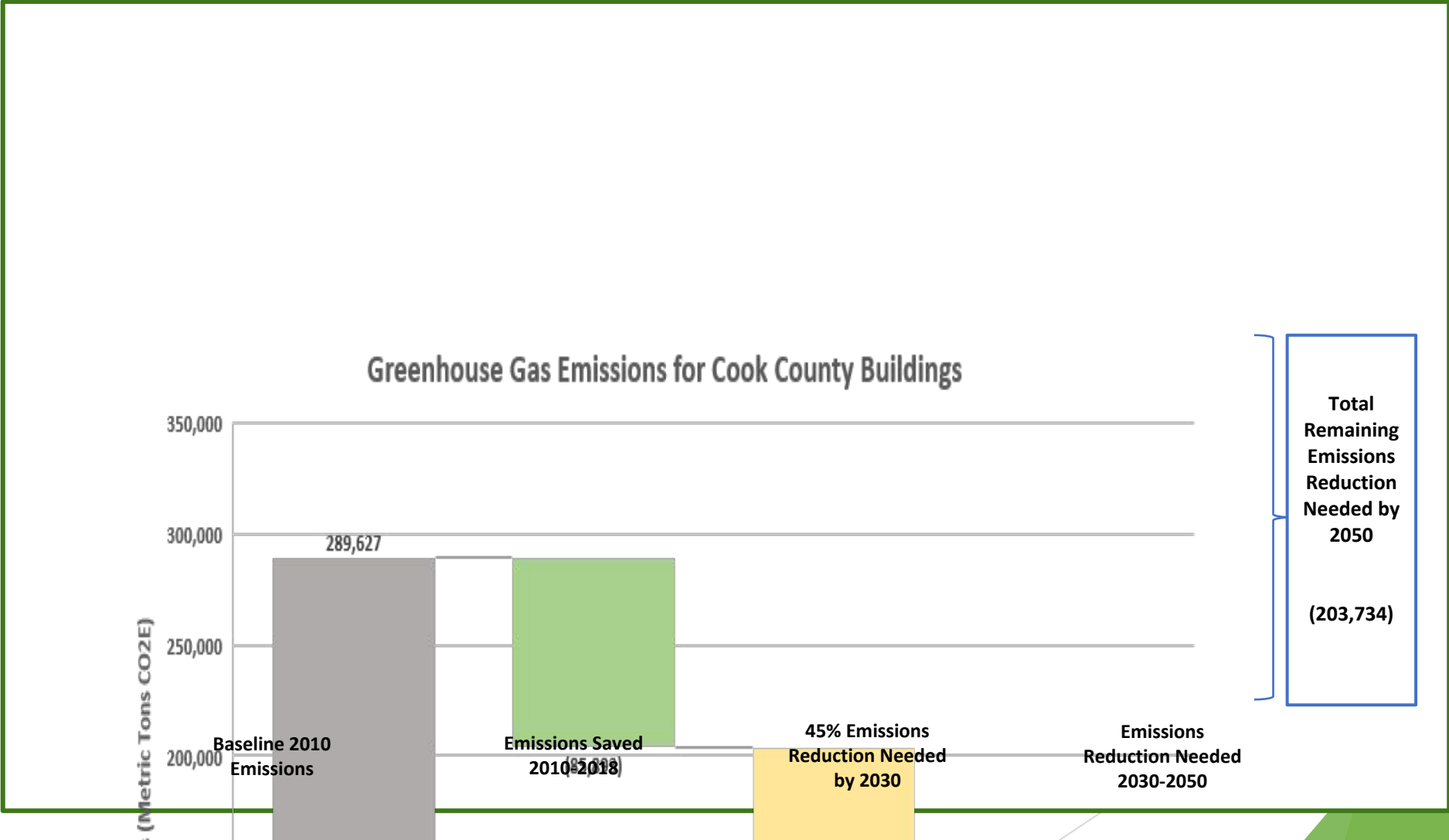
100% renewable electricity by **2030**



- ▶ Goals are based on recommendations from Intergovernmental Panel on Climate Change to avoid the worst impacts of climate change. Baseline is 2010.
- ▶ **Carbon neutral:** The amount of human-produced carbon dioxide equivalent emissions is balanced by clean energy sources.
- ▶ **100% renewable electricity:** Using low- or no-carbon resources including wind, solar, and geothermal for all electricity used in building operations.

Equity: Climate change impacts will affect under-resourced communities and communities of color disproportionately. Solutions that prioritize the needs of under-resourced communities and communities of color are essential.

Greenhouse Gas Emissions: Progress to Date, and Future Action Needed



The Plan Relies Heavily on Familiar Actions



REDUCE: Energy efficient lighting, heating, cooling, plug loads, building envelope etc. The least expensive unit of energy is one you don't use.



MAINTAIN: Monitor energy use through Building Automation Systems, educate employees and building operators and ensure proper maintenance.

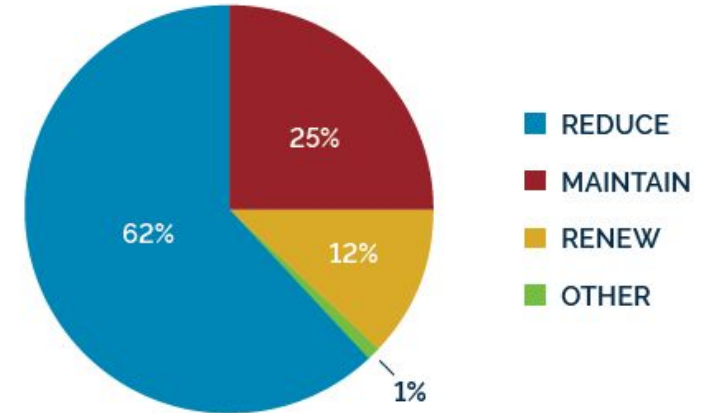


RENEW: Mix of on-site solar, power purchase agreements for offsite solar or wind, or if needed, Renewable Energy Credits. Priority given to local projects that create jobs or help communities.

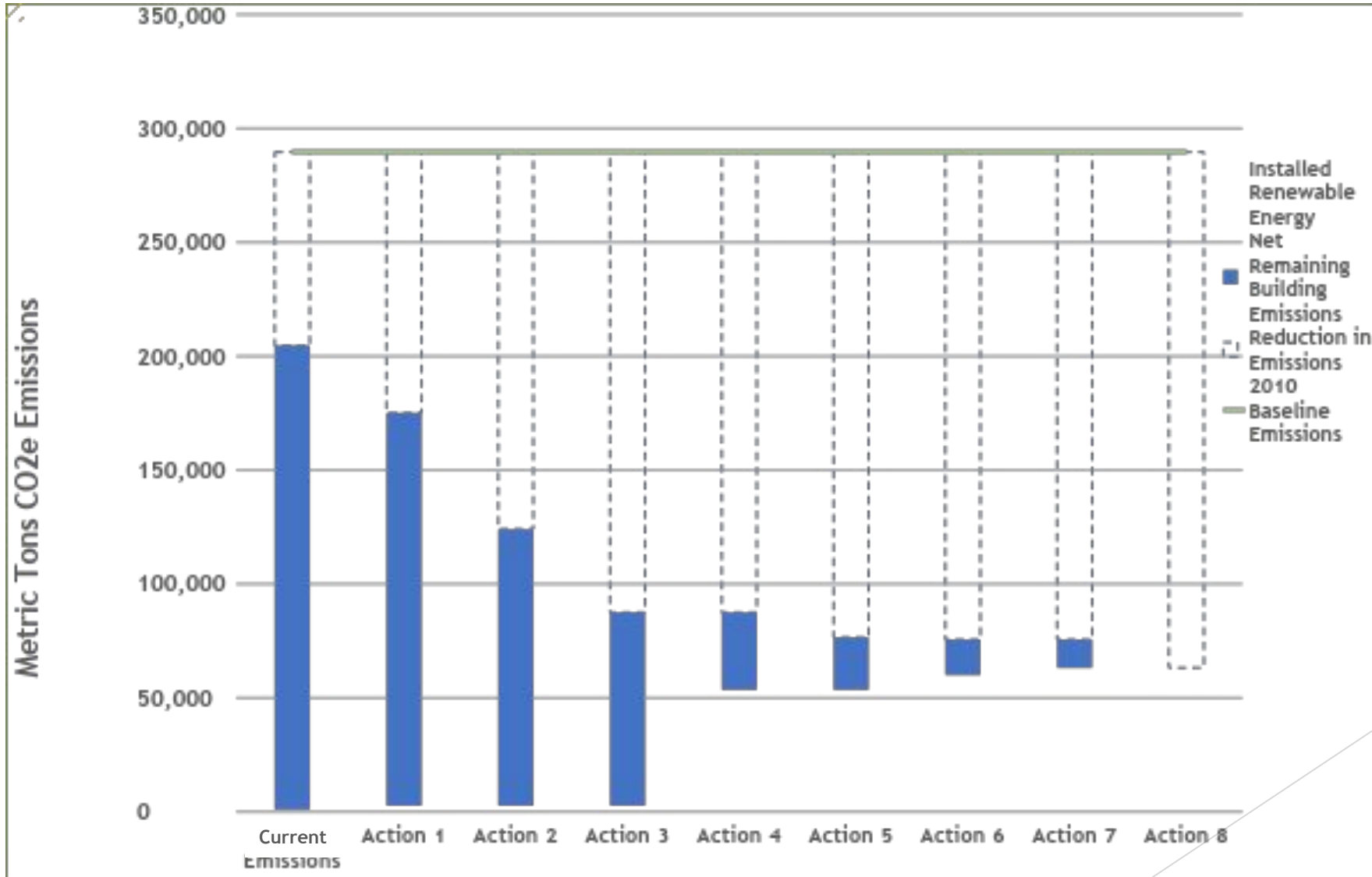


SUPPORT: Policies and procedures to execute the other tracks, such as new building standards, thinking about solar energy potential when buildings are designed, and giving departments incentives to save energy

ESTIMATED IMPACT TOWARD CARBON NEUTRAL



Progress Toward Carbon Neutrality



Action	Specifics
Action 1	Major Building Energy Retrofits, Skokie Solar, Cicero Records Solar
Action 2	Building Automation Systems and Fault Detection Upgrades
Action 3	Next Generation Energy Efficiency Upgrade, Rooftop Solar at Markham, Rolling Meadows, and Bridgeview Courthouses, Employee Behavior Change
Action 4	DOC Redesign
Action 5	Switch mechanical equipment away from natural gas (fossil fuel) to electric when time to replace
Action 6	Portfolio On-site Solar Potential
Action 7	Microgrid
Action 8	Other factors that may reduce emissions

How Action Steps Implement the 4 Tracks

<i>Actions</i>	Reduce	Maintain	Renew	Support
<i>Action 1</i>				
Major Building Retrofits	X	X		
Skokie and Cicero Solar			X	
<i>Action 2</i>				
BAS Upgrades	X	X		
FDD Upgrades	X	X		
<i>Action 3</i>				
Next Generation Energy Efficiency	X	X		
Rolling Meadows, Bridgeview, Markham Solar			X	
Behavior Change	X	X		X
<i>Action 4</i>				
DOC Redesign	X	X	X	
<i>Action 5</i>				
Switch from Natural Gas	X			
Storage	X		X	
<i>Action 6</i>				
Portfolio Rooftop Solar Estimate			X	
<i>Action 7</i>				
Microgrid	X	X	X	
<i>Action 8: Other</i>				
Green Buildings Standards for Capital Projects	X	X	X	X
Performance Based Design for New Construction	X	X		X
Electricity Billed by Department through Submetering for Accountability	X	X		X
Land Acquisition Policy to encourage solar viability for new leased/purchased real estate				X
Greening the Procurement Process				X
Cleaner Grid				X
Property Disposition/Replacement	X			
Offsite Solar Partnerships			X	

Currently Happening

- ▶ Trained Cook County Department of Facilities Management employees on solar installation and upkeep
- ▶ Will issue an RFP for the design and procurement of photovoltaic systems for the Skokie Courthouse, Markham Courthouse and Cicero Warehouse.
- ▶ Published Green Buildings Standards for performance-based design, solar ready buildings and sustainability measures
- ▶ Began in-depth building audits and energy modeling of County facilities

