



Chicago Metropolitan Regional Climate Action



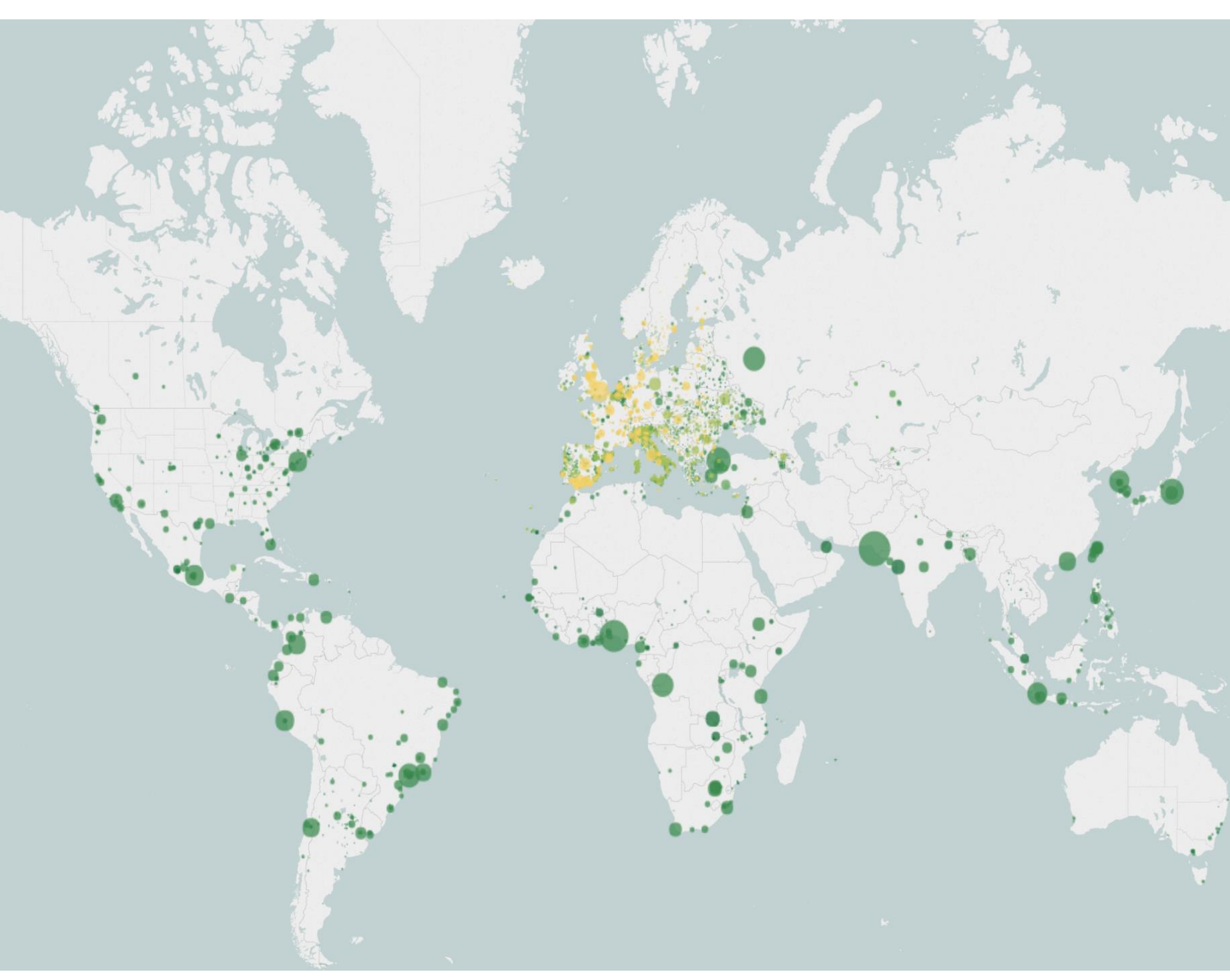
CMAP ENR Committee

January 9, 2020

Edith Makra, MMC

Jared Patton, AICP, CMAP

Global Covenant of Mayors for Climate and Energy



9,200+ CITIES

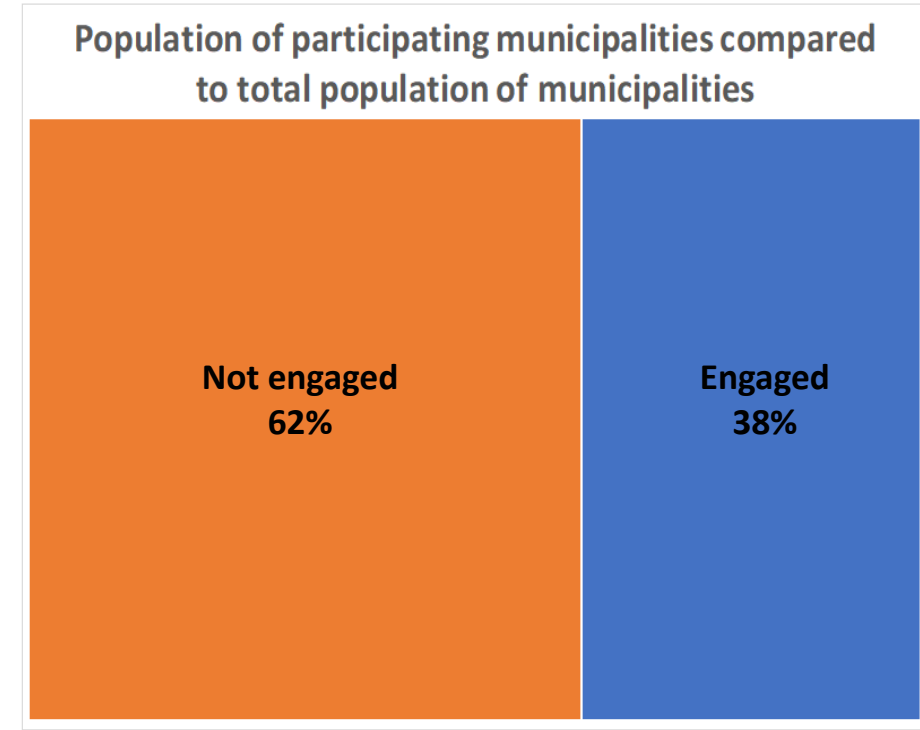
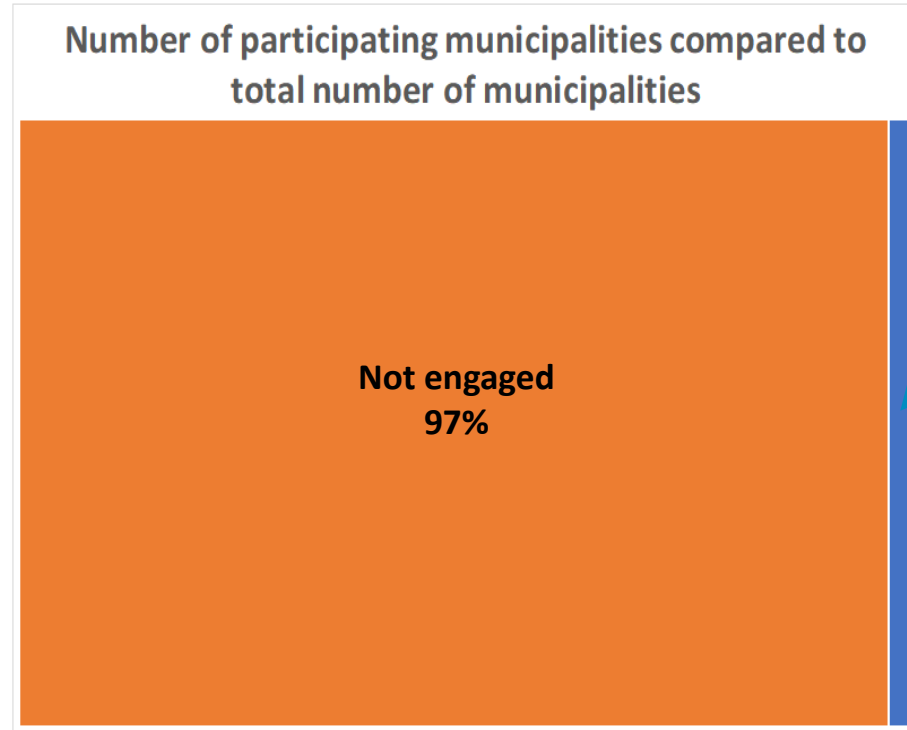
130+ COUNTRIES

800+ MILLION PEOPLE

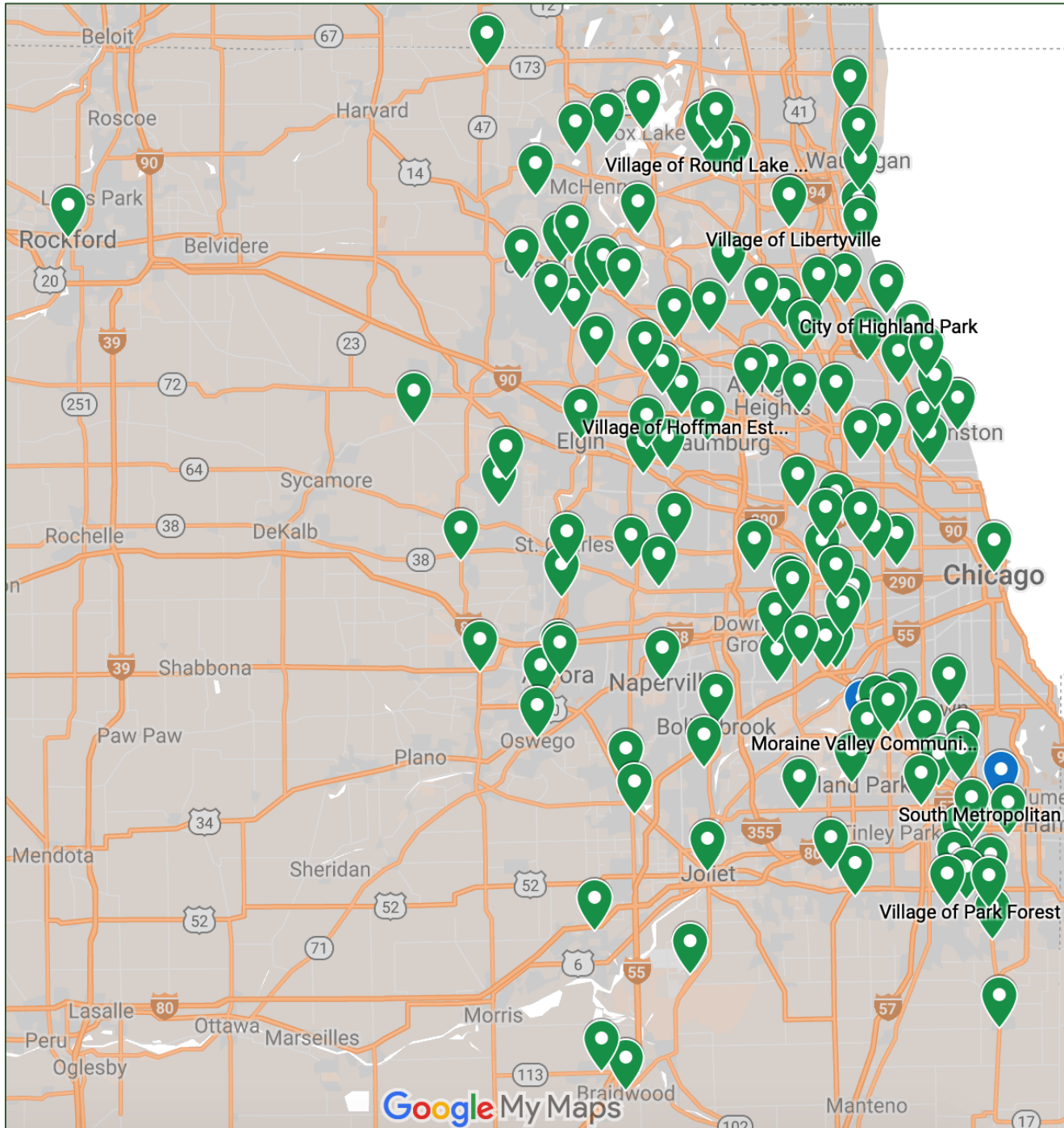
100+ GLOBAL PARTNERS (city networks, private partners, research institutions)

10+% OF THE GLOBAL POPULATION

(only 5 IL municipalities)



Climate Planning - local to global



Greenest Region Compact

COLLABORATING FOR SUSTAINABLE COMMUNITIES

125 Municipalities

3 Counties

10 COGS

6 MILLION PEOPLE

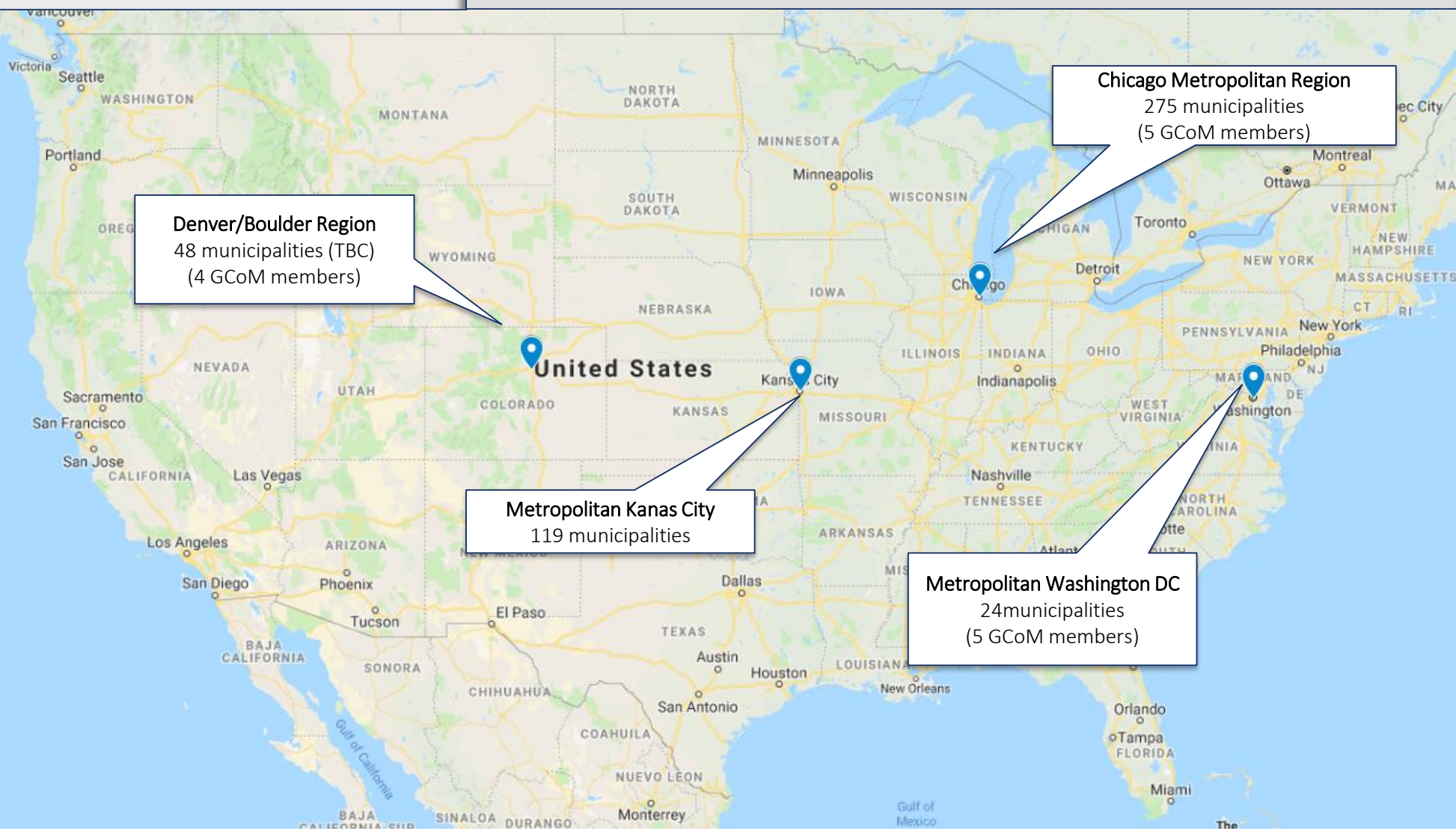
Supporting consensus goals
of the GRC



GCoM USA Regional and Metro-scale Climate Leaders



- Technical support
- Knowledge exchange between US regions and other regions
- Promotion of regional case studies through GCoM



Regional cooperation works in other countries

Chicago Region chosen as a pilot Regional and Metro-Scale Climate Leader to demo regional climate planning in US

GCoM Commitment



- ✓ **GHG emission inventory;**
- ✓ **An assessment of climate risks and vulnerabilities;**
- ✓ **Ambitious, measurable and time-bound target(s);**
- ✓ **Ambitious climate change adaptation vision and goals;**
- ✓ **A formally adopted plan addressing climate change mitigation, climate resilience and adaptation, and access to sustainable energy.**



Global Covenant of Mayors for Climate & Energy Commitment of

**[Name of City or Local Government (please include type of jurisdiction (e.g. city/town/village, etc.))]
[Name of country/region]
[Local Government Logo if applicable]**

I, **[Name]**, **[Mayor and /or title of equivalent mandated representative]** of **[name of city or jurisdiction]** commit to the Global Covenant of Mayors for Climate & Energy (GCoM), joining thousands of other cities and local governments around the world currently engaged in climate leadership.

GCoM envisions a world where committed mayors and local governments – in alliance with partners – accelerate ambitious, measurable climate and energy initiatives that lead to an inclusive, just, low-emission and climate resilient future, helping to meet and exceed the Paris Agreement objectives.

Whatever the size or location, the mayors and local leaders committed to GCoM stand ready to take concrete measures with long-term impact to tackle the interconnected challenges of climate change mitigation and adaptation, as well as access to sustainable energy.

To implement this vision, we pledge to implement policies and undertake measures to (i) reduce / avoid greenhouse gas (GHG) emissions, (ii) prepare for the impacts of climate change, (iii) increase access to sustainable energy, and (iv) track progress toward these objectives.

Specifically, within three years of this commitment^a, we pledge to develop, adopt^a, use and regularly report on the following:






- A community-scale GHG emission inventory, following the recommended guidance;
- An assessment of climate risks and vulnerabilities;
- Ambitious, measurable and time-bound target(s) to reduce/avoid GHG emissions;
- Ambitious climate change adaptation vision and goals, based on quantified scientific evidence when possible, to increase local resilience to climate change;
- An ambitious and just goal to improve access to secure, sustainable and affordable energy; and
- A formally adopted plan(s) addressing climate change mitigation / low emission development, climate resilience and adaptation, and access to sustainable energy.

The targets and action plans for mitigation / low emission development must be quantified and consistent with or exceed relevant national unconditional^b commitments defined through the UNFCCC (Intended) Nationally Determined Contribution (NDC). The targets and action plans should be in line with National Adaptation Plans, where these exist; and should be consistent with the principles around energy access and urban sustainability embodied in the Sustainable Development Goals (SDGs).



*To comply with GCoM
commitment:*

Already completed:

-  GHG Inventory
-  Biz as Usual (BAU) Projections
-  GHG Reduction Targets
-  Emissions Scenarios
-  GRC to inform action development

To be completed by October 2020:

- Climate Risk and Vulnerability Assessment
- Climate Action Plan

Ongoing

- Utilize Common Reporting Framework

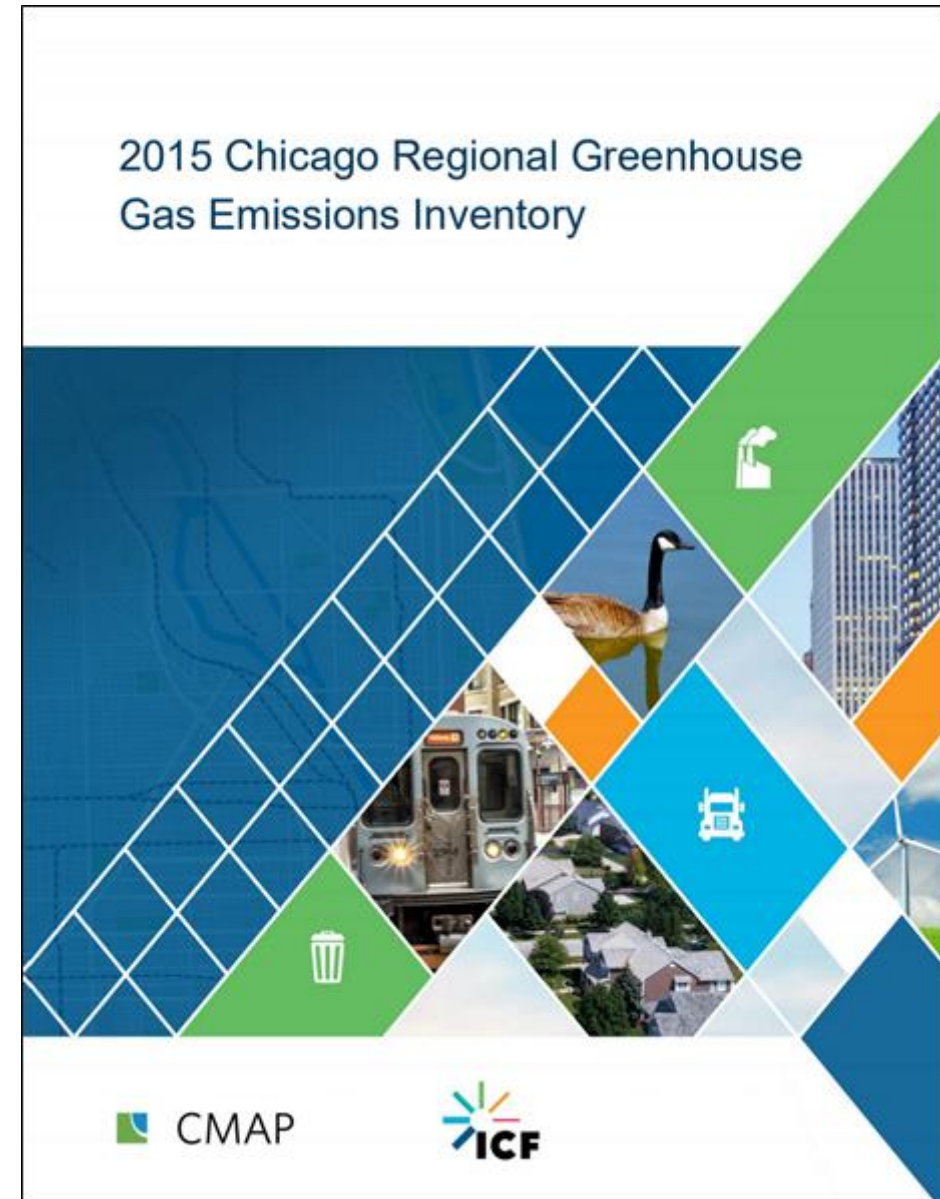


GHG emissions reporting

- *GPC-compliant inventories for 2010 and 2015*
- *Basic trends analysis*
- *Basic projections*

Not included

- *Most aviation*
- *Agriculture*
- *Land use*





2015 Regional Emissions by Sector



Stationary Energy



Waste



Transportation



TOTAL EMISSIONS

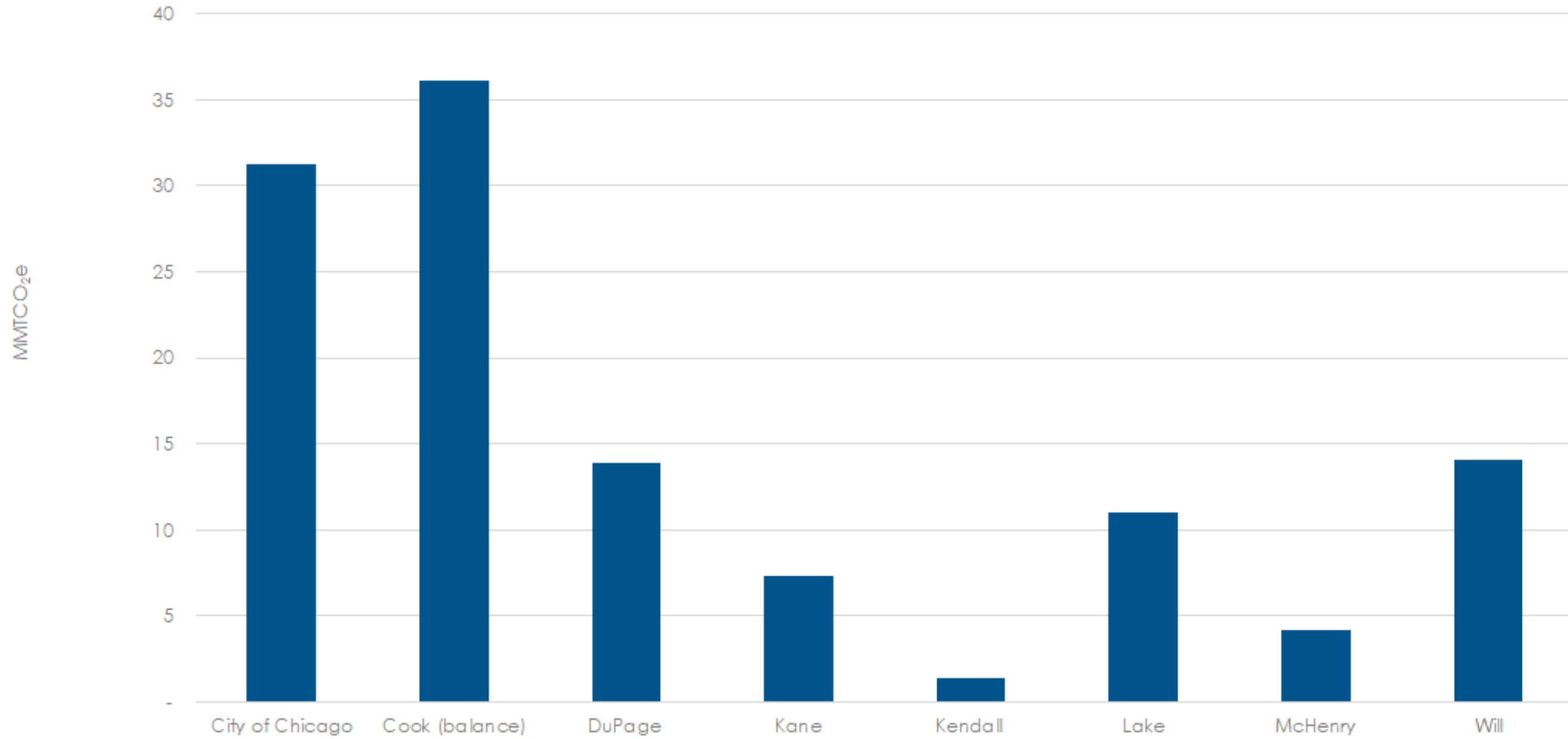
119
MMTCO₂e

PER CAPITA EMISSIONS

13.97
MTCO₂e/PERSON

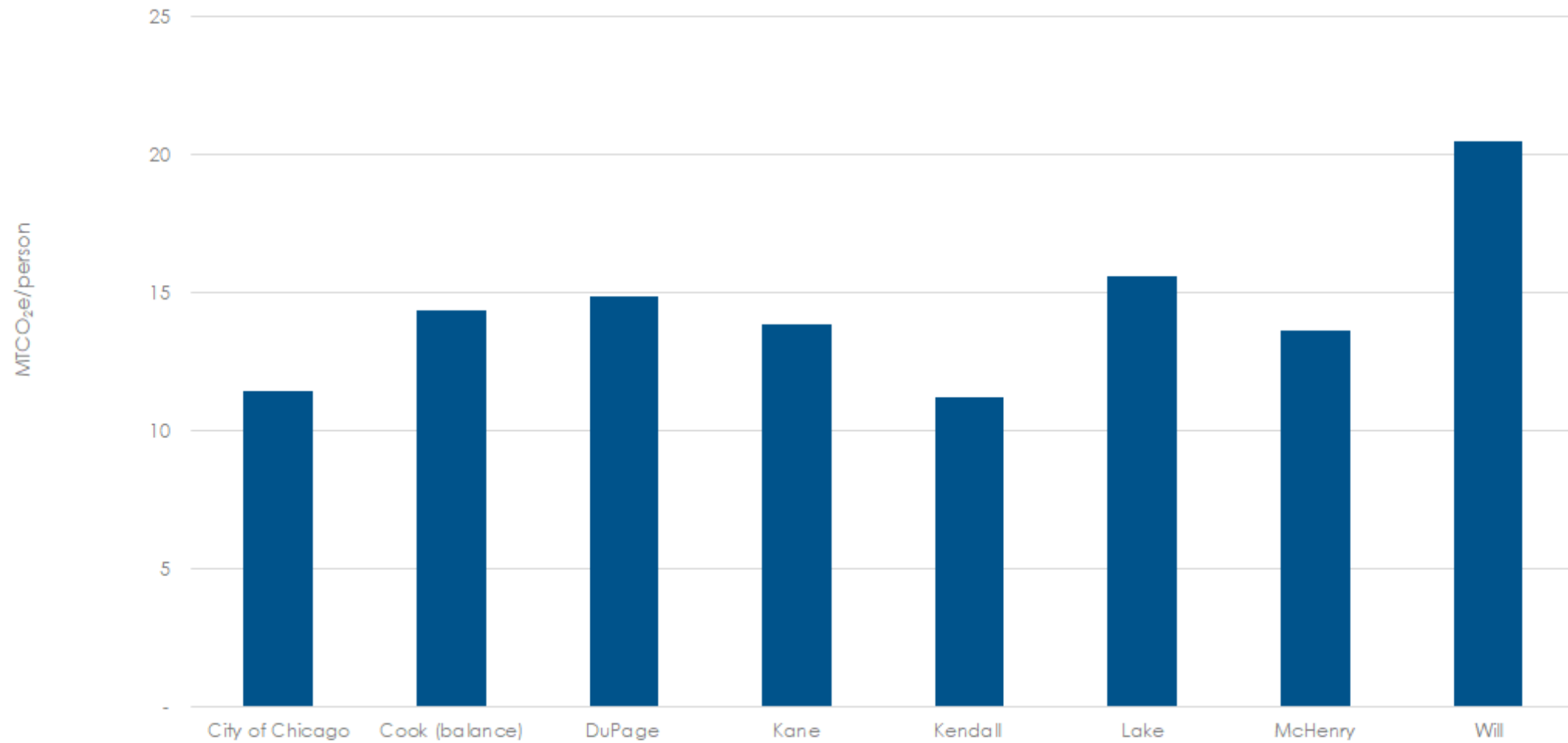


Total emissions (2015)





Per capita emissions (2015)



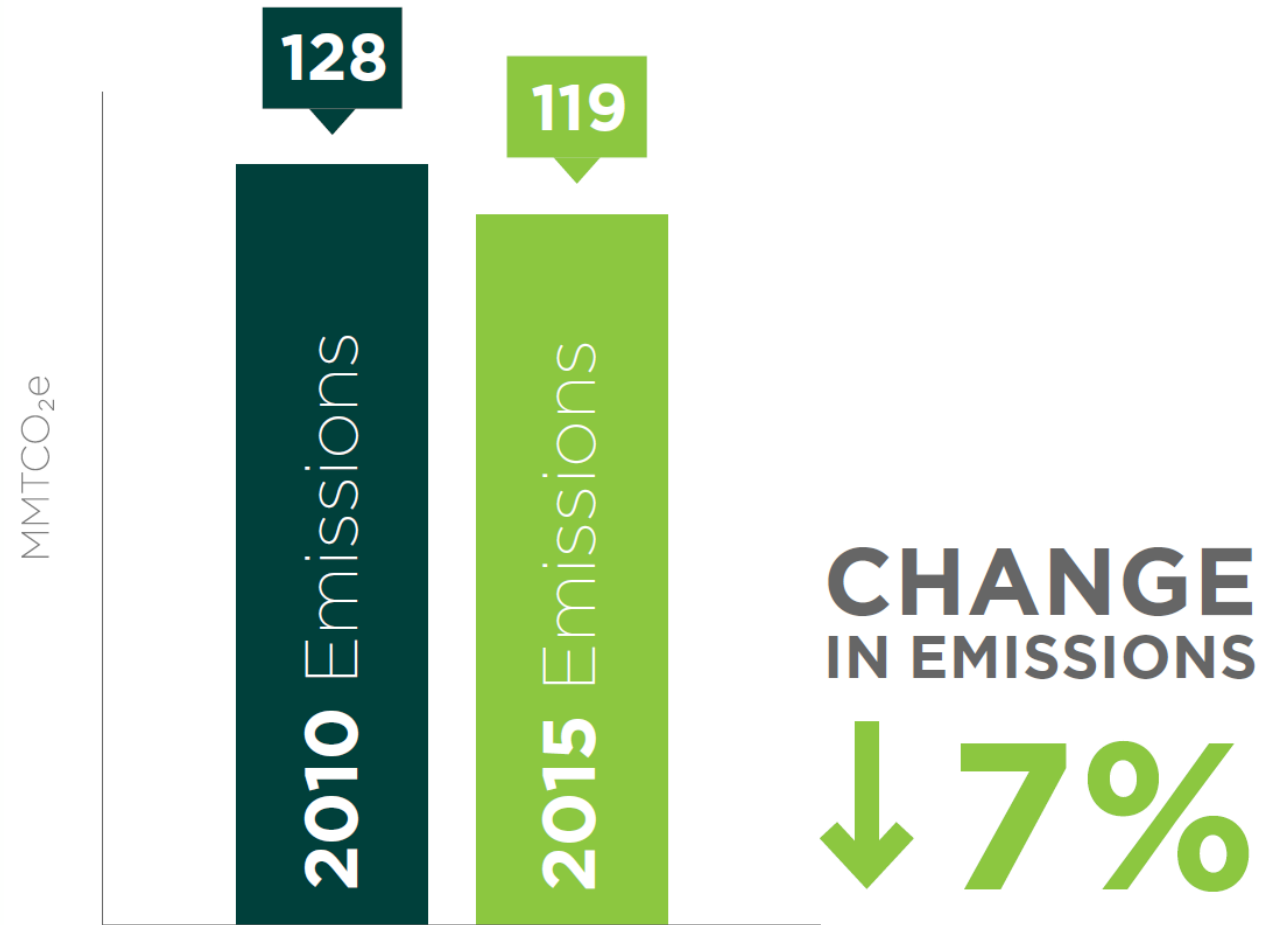


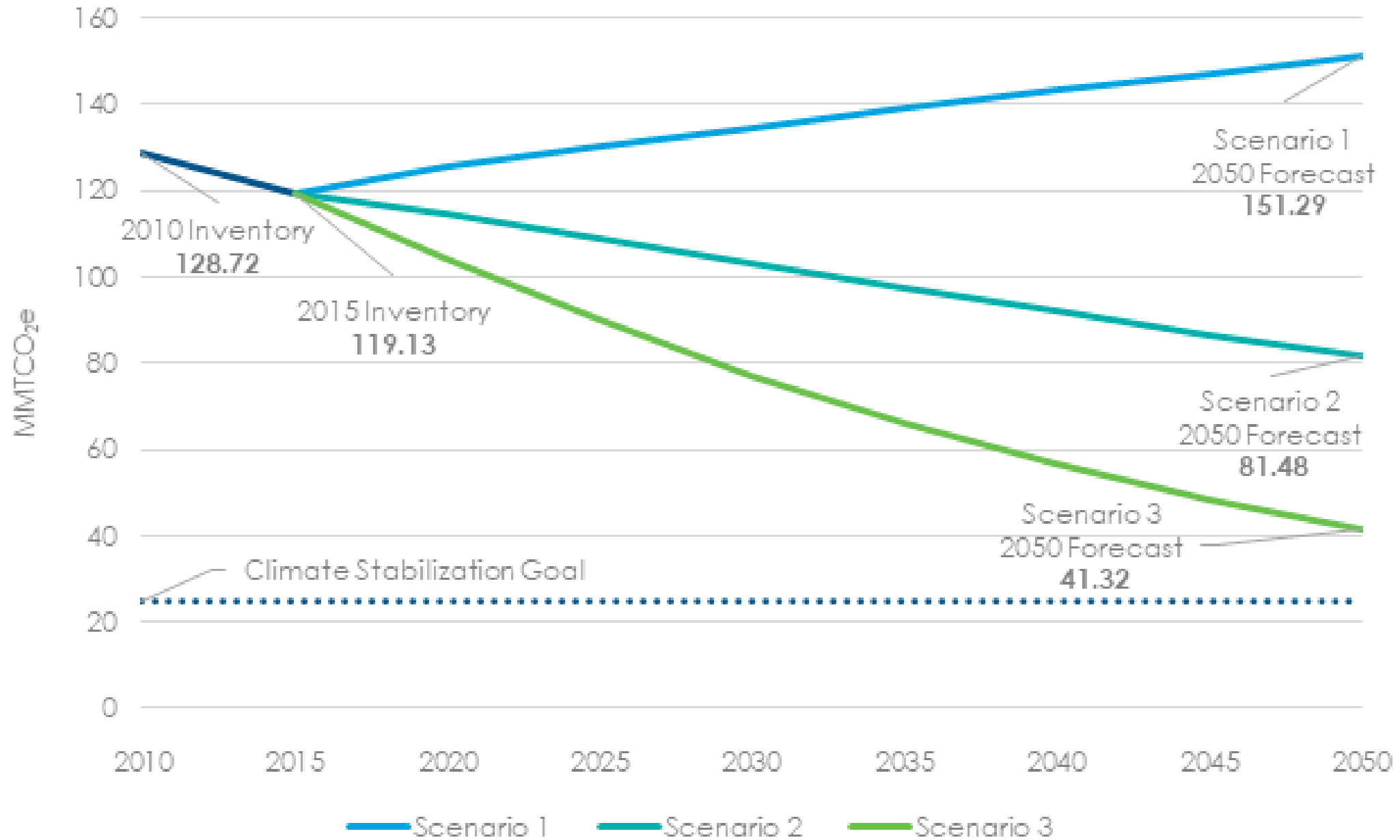
7% reduction 2010-2015
8.5% reduction per capita

Waste: 50% reduction

Buildings: 8% reduction

Transportation: 1% increase







Climate Risk and Vulnerability Assessment

- Basic assessment of the region's risk
- Relies on existing research
- Not location-specific

Climate Risk and Vulnerability Assessment

Hazards

Climate Hazard	Probability	Consequence	Risk
Extreme Heat	3	3	9
Drought	2	3	6
Severe Thunderstorms	2	2	4
Flooding	3	3	9
Severe Winter Weather	2	2	4



Climate Risk and Vulnerability Assessment

- *Basic assessment of the region's risk*
- *Relies on existing research*
- *Not location-specific*

Adaptive Capacity

Factor	Degree of Challenge
Access to Basic Services	Moderate
Public Health	Moderate
Housing	Moderate
Inequality	High
Economic Health	Moderate
Government Capacity	High
Resource Availability	High



Connect Local Strategies and Goals to Regional Climate Targets

1. *GRC Compact*
2. *GRC Framework*
3. Collaboration to address GRC goals



The Greenest Region Compact



Consensus Sustainability Goals in 10 Categories

- | | | | |
|---|----------------------|---|-------------------------|
|  | Climate |  | Mobility |
|  | Economic Development |  | Municipal Operations |
|  | Energy |  | Sustainable Communities |
|  | Land |  | Water |
|  | Leadership |  | Waste |



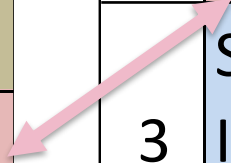
Goal - Use Energy for Public Facilities Efficiently

- Strategies Already Underway

1	Access to Parks/Open Space
	Solid Waste Agency
2	membership/Curbside Recycling
3	Energy Efficiency retrofits public bldgs
4	Urban Forest stewardship
5	Water Metering

- Already Planned


1	Land Preservation
2	Building Retrofits
	Stormwater Management & Green
3	Infrastructure
4	Sust Com Outreach & Engagement
5	Smart Growth & TOD



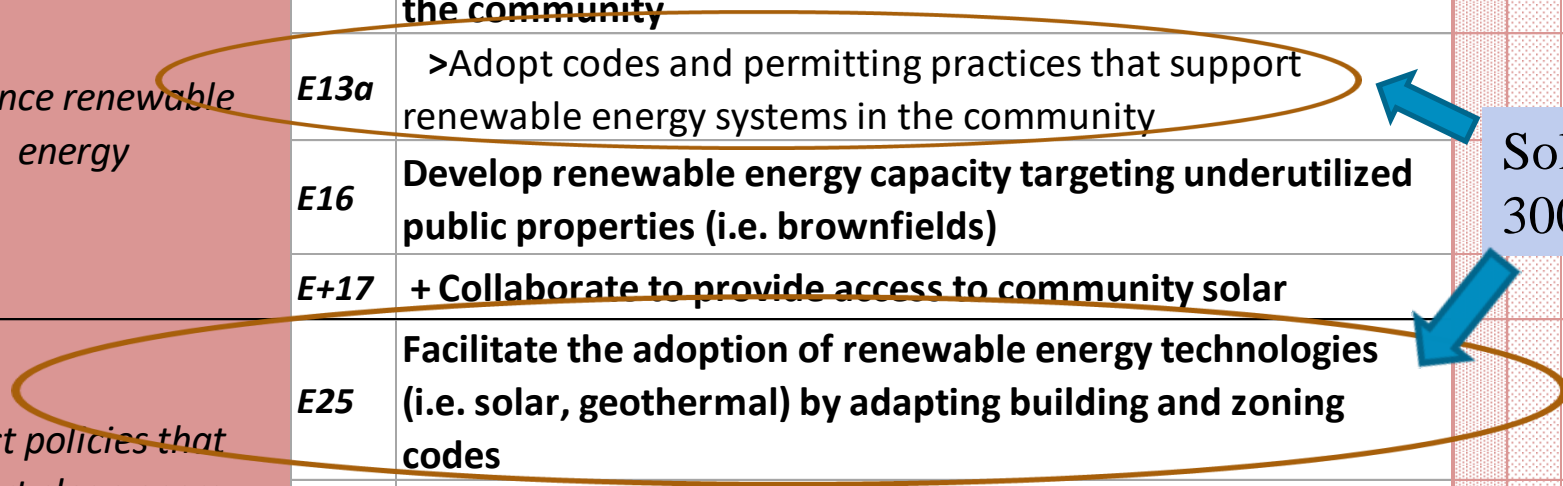
Stationary Energy

283 local governments
76.5 million lbs avoided CO2

GRC2 Framework Solar Energy Example

Category	 GOAL	OBJECTIVE		Already achieved	In Progress	Planned for next 6 months	Planned for next 12-18 months	Interested in pursuing	Not planned	Not relevant	Contact Initials	Notes	Link to Resource	
		> STRATEGY												
		+ ADVANCED STRATEGY												
Renewable Energy	<i>Advance renewable energy</i>	E13	Support the adoption of renewable energy technologies in the community											
		E13a	>Adopt codes and permitting practices that support renewable energy systems in the community											
		E16	Develop renewable energy capacity targeting underutilized public properties (i.e. brownfields)											
		E+17	+ Collaborate to provide access to community solar											
Policy	<i>Enact policies that support clean energy</i>	E25	Facilitate the adoption of renewable energy technologies (i.e. solar, geothermal) by adapting building and zoning codes											
		E+29	+ Negotiate franchise agreement with utilities to exercise lump sum payment option to finance clean energy											

Sol Smart – MMC Cohort = 3000% growth in solar PV



Regional Climate Workshops



Using GRC Framework

1. What strategies are easy for munis?
(rank difficulty)
2. What strategies require regional
collaboration?
3. Identify barriers and strategies



GOAL

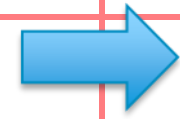
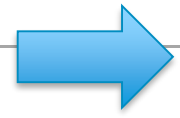
OBJECTIVE

> STRATEGY

Rank of Difficulty by
muni (1 easy - 5)

Achievable by Muni

Regional
Collaboration



Advance renewable energy

E13

Support the adoption of renewable energy technologies in the community

2

y

*

E13a

>Adopt codes and permitting practices that support renewable energy systems in the community

1

y

Enact policies that support clean energy

E25

Facilitate the adoption of renewable energy technologies (i.e. solar, geothermal) by adapting building and zoning codes

2

y

E+29

+ Negotiate franchise agreement with utilities to exercise lump sum payment option to finance clean energy

5

**

What we've heard so far:

General Feedback

- Strong support
- Desire for climate action
- Empowering to all communities
- Priority strategies emerging

Regional Needs/Opportunities

- Build support and literacy
- Data, research, and dataset management
- Education and advocacy
- Stronger unified voice, i.e. with utilities
- Coordination/facilitation, i.e. SolSmart

Regional Climate Plan Engagement

1. Kickoff & GRC Workshop

- Oct. 8th – 80 people
- MMC Enviro Com workshops
 - Dec 9 – Global Congress for Sustainability & Climate Change Professionals – 35 people
 - Jan 21 – Village of Montgomery – join us!

2. Risk & Vulnerability Workshop

- April tbd
- General Outreach – National Association of Regional Councils – Feb, Washington DC





2019

2020

2021

2022

2023



Present

Project

Future Needs

GRC

Workshops

Socialize This Work

GHG

Climate Risk &
Vulnerability
Assessment

Additional Funding

ON TO 2050

Regional Climate
Action Plan

Reporting & Tracking Framework

Regional Follow-up Projects



Discussion and questions

What topics are most important to address at the regional scale? How can these topics be addressed?

What regional approaches are most important? Do you know of any examples of these approaches in action?

How can we leverage this work to support future projects?



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