# The Compact of Mayors and ClearPath:

the Future of City-Scale Emissions Management









World's biggest collaboration to accelerate local climate action











### Agenda

- Rohan Patel
  - Special Assistant to the President and Deputy Director of Intergovernmental Affairs
  - Compact of Mayors in support of US National Commitments
- Mike Steinhoff
  - Primer on Global Protocol for Community Scale Emissions Inventories (GPC)
  - New ClearPath Features for GPC Compliance
- Jonathan Wachtel
  - Sustainability Manager Lakewood, CO
  - Experience with Compact of Mayors and GHG Inventories



### Rohan Patel

Special Assistant to the President and Deputy Director of Intergovernmental Affairs



## Mike Steinhoff

Program Manager, ICLEI USA





Any city or town in the world may commit to the Compact of Mayors—regardless of size or location. A city has up to three years to meet a series of requirements and fully comply, culminating in the creation of a full climate action and adaptation plan, and it will be recognized as each step is met. Many cities have already completed some of the activities and can be compliant in fewer than three years.

To commit to the Compact, a city leader must:



#### REGISTER COMMITMENT.

A mayor may register on either of the Compact's standard reporting platforms—carbon n Climate Registry or CDP—or email a letter of intent to info@ compactofmayors.org. Following its submission, a city will be contacted by the Compact support team.



#### TAKE INVENTORY.

Within one year, a mayor must assess the current impacts of climate change in his/her city. To do so, the city must (1) Build and complete an overall greenhouse gas emissions inventory; (2) Identify climate risks; and (3) Report on both via the CDP or carbon Climate Registry questionnaires.



#### CREATE REDUCTION TARGETS AND ESTABLISH A SYSTEM OF MEASUREMENT.

Within two years, the registered city must update its GHG inventory to include a breakdown of emissions by sources and sectors; set a target to reduce its GHG emissions; conduct a "climate change vulnerability assessment" using a Compact standard; and report in its chosen platform.



#### ESTABLISH AN ACTION PLAN.

Within three years, a city's strategic action plan must show how it will deliver on its commitment to reduce greenhouse gas emissions and adapt to climate change.

#### Compact of Mayors Reporting

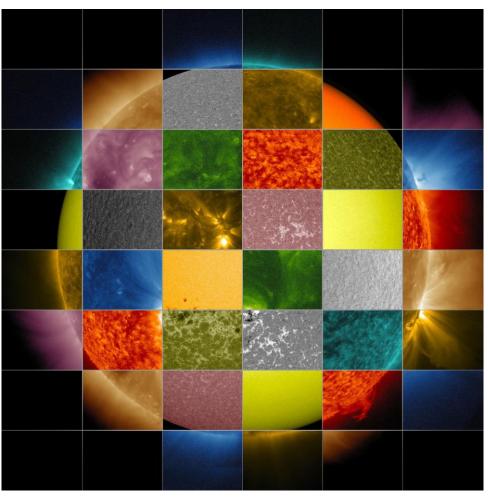
- Transparency, accountability, and peer learning
- Key momentum driver for national agreements
- carbon n Climate Registry (cCR) and Carbon Disclosure Project (CDP)
- NAZCA at COP 21, Non-State Actor Zone for Climate Action
  - Commitments from Companies, Investors, Regions, Cities
- Commitments must be clearly understood
  - GPC Inventories are the standard to achieve this



### Accounting Protocols

 City-based mitigation requires answers to many questions

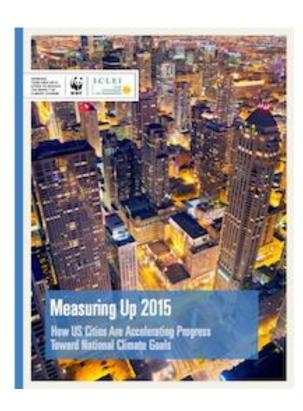
- Different questions need different lenses
  - Research
  - Management & Policy
  - Evaluation



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#### The GPC Lens

- Consistent Globally
  - Showcase Performance
  - Drive Investment Decisions
- Allows for Aggregation
  - Support States
  - Regional Planning
- Gap Identification
  - What data is consistently missing?
  - Where should ICLEI, C40, WRI be investing to fill them?





# Global Protocol for Community Scale GHG Emissions Inventories

- "An Accounting and Reporting Standard for Cities"
- Scopes Based Reporting
- Basic and Basic+ Reporting Levels
- Emphasizes Transparency & Comparability
- The Standard for Registries (Carbon & CDP)



### Sources & Scopes

Figure 2 Sources and scopes covered by the GPC

Sectors and sub-sectors	Scope 1	Scope 2	Scope 3					
STATIONARY ENERGY								
Residential buildings	✓	✓	✓					
Commercial and institutional buildings and facilities	✓	✓	✓					
Manufacturing industries and construction	✓	✓	✓					
Energy industries	✓	✓	✓					
Energy generation supplied to the grid	✓							
Agriculture, forestry, and fishing activities	✓	✓	✓					
Non-specified sources	✓	✓	✓					
Fugitive emissions from mining, processing, storage, and transportation of coal	✓							
Fugitive emissions from oil and natural gas systems	✓							
TRANSPORTATION								
On-road	✓	✓	✓					
Railways	✓	✓	✓					
Waterborne navigation	✓	✓	✓					
Aviation	✓	✓	✓					
Off-road	✓	✓						

✓ Sources covered by the GPC
 □ + □ Sources required for BASIC+ reporting
 □ Sources required for territorial total but not for BASIC/BASIC+ reporting (italics)
 □ Sources included in Other Scope 3
 □ Non-applicable emissions

### Sources and Scopes

WASTE		
Disposal of solid waste generated in the city	✓	✓
Disposal of solid waste generated outside the city	✓	
Biological treatment of waste generated in the city	✓	✓
Biological treatment of waste generated outside the city	✓	
Incineration and open burning of waste generated in the city	✓	✓
Incineration and open burning of waste generated outside the city	✓	
Wastewater generated in the city	✓	✓
Wastewater generated outside the city	✓	
INDUSTRIAL PROCESSES AND PRODUCT USE (IPPU)		
Industrial processes	✓	
Product use	✓	
AGRICULTURE, FORESTRY AND OTHER LAND USE (AFOLU)		
Livestock	✓	
Land	✓	
Aggregate sources and non-CO <sub>2</sub> emission sources on land	✓	
OTHER SCOPE 3		
·	required for BASIC reporting required for territorial total but not for BASIC/BASIC+ reporting	(italics)
Sources included in Other Scope 3 Non-appli	icable emissions	

## GPC Reporting Structure

#### **Table 4.3 GHG Emissions Report**

GPC ref No.	Scope	GHG Emissions Source (By Sector and Sub-sector)			
1		STATIONARY ENERGY			
1.1		Residential buildings			
1.1.1	1	Emissions from fuel combustion within the city boundary			
1.1.2	2	Emissions from grid-supplied energy consumed within the city boundary			
1.1.3	3	Emissions from transmission and distribution losses from grid-supplied energy consumption			
1.2		Commercial and institutional buildings and facilities			
1.2.1	1	Emissions from fuel combustion within the city boundary			
1.2.2	2	Emissions from grid-supplied energy consumed within the city boundary			
1.2.3	3	Emissions from transmission and distribution losses from grid-supplied energy consumption			
1.3		Manufacturing industries and construction			
1.3.1	1	Emissions from fuel combustion within the city boundary			
1.3.2	2	Emissions from grid-supplied energy consumed within the city boundary			
1.3.3	3	Emissions from transmission and distribution losses from grid-supplied energy consumption			
1.4		Energy industries			
1.4.1	1	Emissions from energy used in power plant auxiliary operations within the city boundary			
1.4.2	2	Emissions from grid-supplied energy consumed in power plant auxiliary operations within the city boundary			
1.4.3	3	Emissions from transmission and distribution losses from grid-supplied energy consumption in power plant auxiliary operations			
1.4.4	1	Emissions from energy generation supplied to the grid			

Gases (in tonnes)						Data Quality		Explanatory comments (i.e. description of methods or notation keys used)		
CH <sub>4</sub>	N <sub>2</sub> O	HFC	PFC	SF <sub>6</sub>	NF <sub>3</sub>	Total CO <sub>2</sub> e	CO <sub>2</sub> (b)	AD	EF	of methods or notation keys used)
									Data   CH <sub>4</sub>   N <sub>2</sub> O   HFC   PFC   SF <sub>6</sub>   NF <sub>3</sub>   Total CO <sub>2</sub> e   CO <sub>2</sub> (b)   AD	Data Quality   CH <sub>4</sub>   N <sub>2</sub> O   HFC   PFC   SF <sub>6</sub>   NF <sub>3</sub>   Total CO <sub>2</sub> e   CO <sub>2</sub> (b)   AD   EF   CO <sub>2</sub>   CO <sub>3</sub>   CO <sub>4</sub>   CO <sub>4</sub>   CO <sub>5</sub>   CO <sub>5</sub>

### **Notation Keys**

Table 2.1 Use of notation keys<sup>5</sup>

Notation key	Definition	Explanation
IE	Included Elsewhere	GHG emissions for this activity are estimated and presented in another category of the inventory. That category shall be noted in the explanation.
NE	Not Estimated	Emissions occur but have not been estimated or reported; justification for exclusion shall be noted in the explanation.
NO	Not Occurring	An activity or process does not occur or exist within the city.
С	Confidential	GHG emissions which could lead to the disclosure of confidential information and can therefore not be reported.



#### ClearPath



#### Online Emissions Management Platform



- Protocol-compliant inventory calculations
- Dynamic forecasting features
- Decision-support for climate action planning
- Implementation tracking
- Emissions monitoring
- Community-scale and government operations tracks
- Community-scale Inventory Module (ClearPath Basic) free to all US local governments to support the Compact of Mayors
- Full platform (ClearPath Pro) free to ICLEI members and all California local governments
- Always available for consultants working on behalf of local governments



#### ClearPath Metrics

- 1 320 Local Government & Regional Accounts
- 2 250 Gov Ops & 400 Community Inventories
- 3 Over 175 BAU Forecasts
- 4 149 Planning Scenarios
- 5 Over 200 LGO & Community Measures



#### ClearPath & GPC

- Phase I Upgrades Complete
  - All new records "tagged" with Scope and GPC Reference Number
  - Process for Updating Existing Records

- Phase II
  - GPC Formatted Reports
  - "One Click Reporting"



## ClearPath GPC Demo



### Jonathan Wachtel

Sustainability Manager Lakewood, CO



#### City of Lakewood, Colorado

- West of Denver between Denver & foothills
- Colorado's 5<sup>th</sup> largest City
- Population: ~150,000
- 44.21 square miles
- Incorporated in 1969

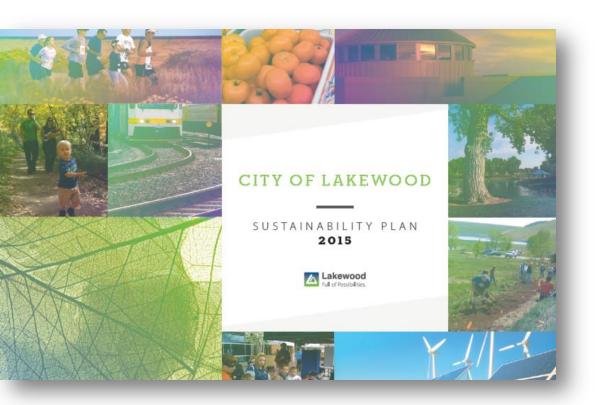


#### **Presentation Points:**

- Community GHG targets
- ClearPath for goal setting & strategy modeling
- Commitments
- Challenges

## 1<sup>st</sup> Sustainability Plan – Adopted May 11, 2015

- 7 Chapters
- 16 Goals
- **35** Community Targets
- **63+**Implementation strategies
- 90 Indicators







#### Climate Change & Adaptation

#### **Overarching Targets:**

- Reduce communitywide GHG emissions by 20% below 2007 levels by 2025.
- Reduce communitywide GHG emissions by 50% below 2007 levels by 2050.
- Reduce municipal GHG emissions annually through 2025.



#### **Establishing Targets:**

- 2011 GHG inventory (2007 data)
- Hybrid methodology
- ClearPath tool for reporting and planning scenarios
  - Some benefits
  - Some limitations
- Successfully completed an assessment of each plan implementation strategy to realistically understand GHG reduction potential

Sustainability Division

#### **Establishing Targets:**

	Buildings Reductions (mt CO2e)	Transportation Reductions (mt CO <sub>2e</sub> )	Materials Reductions (mt CO2e)	Total Emission Reduction in 2025 (mt CO <sup>2</sup> e)
Energy, Water and the Built Environment	254,495	0	0	254,495
Transportation	1,889	17,310	0	19,199
Sustainable Economy	811	17,199	4,375	22,385
Zero Waste	0	0	99,254	99,254
Natural Systems	3,673	0	8,020	11,693
Community Cohesion and Public Health	0	0	508	508
TOTAL reductions in 2025	260,869	34,509	112,157	407,535
TOTAL CO <sub>2e</sub> emissions in 2025	792,499	504,655	791,443	2,088,598

#### Lakewood's GHG Commitments

- Committed to achieving adopted targets
- Committed to tracking and reporting to Council
- Committed to the Compact of Mayors
  - Aligned with existing commitments
  - Demonstrate community's desire to do our part
  - Leadership role as a first-ring suburban community
  - Emphasize community vision we rely on many systems out of our direct control (energy, water, waste, etc.)

Sustainability Division

#### Challenges and Opportunities

- Cost of conducting inventory
- Which methodology to use
- Data collection and consistency
- Consistency with neighboring communities
- Communication & Meaningful Outreach

## Wrap Up



# Future of City Emissions Accounting

- GPC is the global reporting standard
- Country-level supplements are still helpful
  - US data sources, calculation guidance
- ClearPath Basic available to all at no-cost to perform protocol-compliant inventories
- Reporting to cCR or CDP for transparency and global impact
- Compact of Mayors partners ICLEI and C40 are here to support all of the above



### How to Join the Compact

- ICLEI will send you a template letter of commitment after this webinar
- Fill out and return to Compact partners
- Help us reach the President's goal in the next eight weeks!



## Questions?



#### Thank You

#### **Coming Soon!**

- Compact of Mayors FAQ
- ClearPath GPC
   Conversion Step-by Step Guide







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- Is there a cost for reporting to carbonn or CDP
  - A: There is no cost involved to report to either platform
- What distinguishes choosing between carbonn or CDP?
  - A: Both Carbonn and CDP work equally well for reporting Compact of Mayors compliance data. Carbonn is generally more closely associated with cities and other public sector initiatives such as the WWF Earth Hour City Challenge.



- Jonathan's presentation gives me hope for engaging smaller communities in this protocol. Two questions: Is there a concerted effort to reach out to small cities and towns, which are more numerous, but less populated than the big players, to make this conceptually "accessible?" 2) Do any of the templates give dollarsaving estimates? That's what sold our City Council on setting GHG reduction targets. Great webinar! Thanks.
  - A: The Compact of Mayors is open to cities of any size. Opening the ClearPath inventory module freely to all cities, is to remove financial barriers to getting started and the Compact will continue to release additional resources over the several-year life of the campaign to provide resources that support compliance. ICLEI-USA's efforts are in many ways a concerted effort to reach out to small and medium size cities, as they make up the majority of our membership base. For cost, the ClearPath Planning Module available in the pro version of the tool models net present value estimates of costs and savings for many common mitigation measures to support decision makers.



- Who should sign the letter of committment? Does it need to be the Mayor? Any preference?
  - A: A top-level elected official is expected to sign the commitment. This
    could be a Mayor or legislative official.
- We've a customized workbook/tool that was developed to track our local and community emissions, as well as plan for action items. If we choose to adopt this platform, are there migration paths available and w/o revising our 2010 (baseline) and 2011 data?
  - A: For those cities who have been working on emissions data and measure tracking with internal resources, options are available to enter those into both the ClearPath tool (for inventories) or Carbonn (for actions) directly with minimal effort. While inventory data can be reported to Carbonn directly from your internal workbook, entering it into ClearPath first can help to ensure that it is in GPC format.



- Hi Brian, can you or Mike speak to changes planned to the ICLEI protocols and whether within the next 3 years the US and GPC protocols will converge or align to make it easier for cities to comply?
  - A: The GPC was designed to allow for specific country-level supplements to direct cities on specific sources of data and provide guidance on calculation approaches that are appropriate for the local context. Future updates to the US Community protocol will reflect the reporting standards for GPC, while continuing to provide additional guidance on city-associated activities that do not fall under the priority areas of GPC, such as consumption based accounting.
- What kind of transition, if any, would be needed to take a GHG done with CACP software into the ClearPath format? Is it just pushing a button or will it require someone to convernt and/or reenter data?
  - A: Data will need to be re-entered in order to ensure that it is correctly categorized for GPC. ClearPath is designed to be able to accept the outputs of previously performed inventories to facilitate this process, rather than have to make the calculations over again from within the tool.



- Clear path Available to Canadian Cities who sign up on Mayors Compact
  - A: An international version of the inventory module of the tool will be available to any city worldwide in late November 2015.
- How many citizens participated in developing the sustainability plan? Was this number more than the usual for other government initiatives? What did the naysayers (inside and outside government) say in opposing the direction your city has taken?
  - A: Review Recording for answer from Jonathan Wachtel of Lakewood, CO.

