

Better Climate Action Metrics & Storytelling: UC Berkeley's GHG Inventory Tool Demo

CCEC 2025

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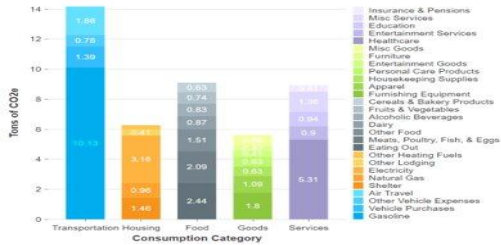


Agenda

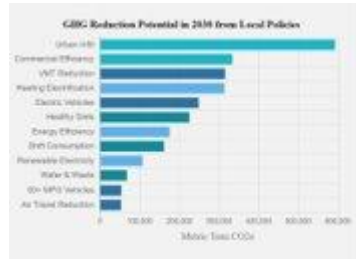
Introduction	10 min
Tool Demo: <ul style="list-style-type: none">● GHG Inventories● Implementation Indicators	20 min
Storytelling: <ul style="list-style-type: none">● Guidance/Tips● Exercise	20 min
Q&A	10 min

Project Introduction

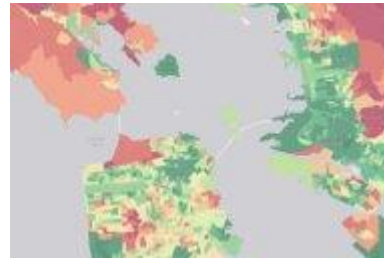
Territorial & Consumption Based Inventories



Policy Planning Tools



Equity & Implementation Indicators



Journalism

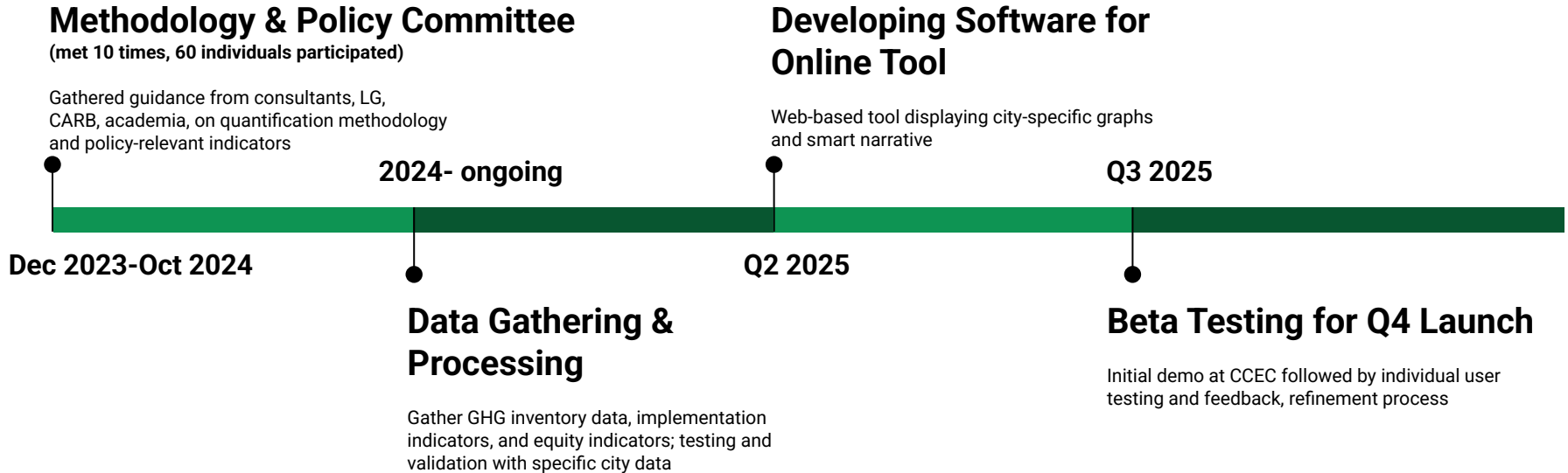


CAclimateequity.substack.com

Audiences

Local Government Staff (and their consultants) Primary Audience	State Agencies	General Public (residents and businesses)	Academics & Researchers
Conduct local GHG inventory for internal reporting, reporting to elected officials and/or constituents. Use to inform CAPs and to track progress.	See trends across the state - by community types, funding distribution, etc.	Information for people who want to take personal action or advocate for actions by their local gov	Analyze the data and gather findings

Project Timeline



GHG Inventories

Poll:

**What year is your most
recent GHG inventory?**

Cities' Needs & Use Cases Vary

City Status	Estimated % of CA cities	UCB Data Tool Value
Never Conducted GHG Inventory	50%	Access first GHG inventory, which shows proportion of emissions sources and trends over time; and/or implementation indicators
Latest GHG Inventory is Outdated	25%	Access trend over time, using different methodology from original inventory, which would have required updating anyway; and/or implementation indicators
Recently Updated GHG Inventory	25%	Access implementation-relevant indicators that go beyond GHG inventory; GHG inventory portion may be of minimal use since methodology will differ

GHG Inventory Methodology

Variable	Methodology
Light Duty Vehicles	Replica Nationwide Origin-Destination model Backcasting using AADT (traffic counts) & CARB Fleet Database Emissions per mile from CARB EMFAC
Heavy Duty Vehicles	CARB EMFAC + Fleet Database (allocated to tracts where vehicles registered)
Gas in Buildings	Therms per sector from IOU data request per CPUC Decision 14-05-016
Electricity	kWh per sector from IOU data request per CPUC Decision 14-05-016 Emissions per kWh IOU or CCA territory-wide average
Offroad	CARB Off-Road model (mostly allocated to counties, or downscaled by population, e.g. “Lawn and Garden” equipment)
Waste + Wastewater	Standard methodologies for waste, wastewater agriculture (for counties only)

GHG Inventory

Demo

Beyond GHG Inventories: Implementation Indicators

Limitations of GHG Inventories

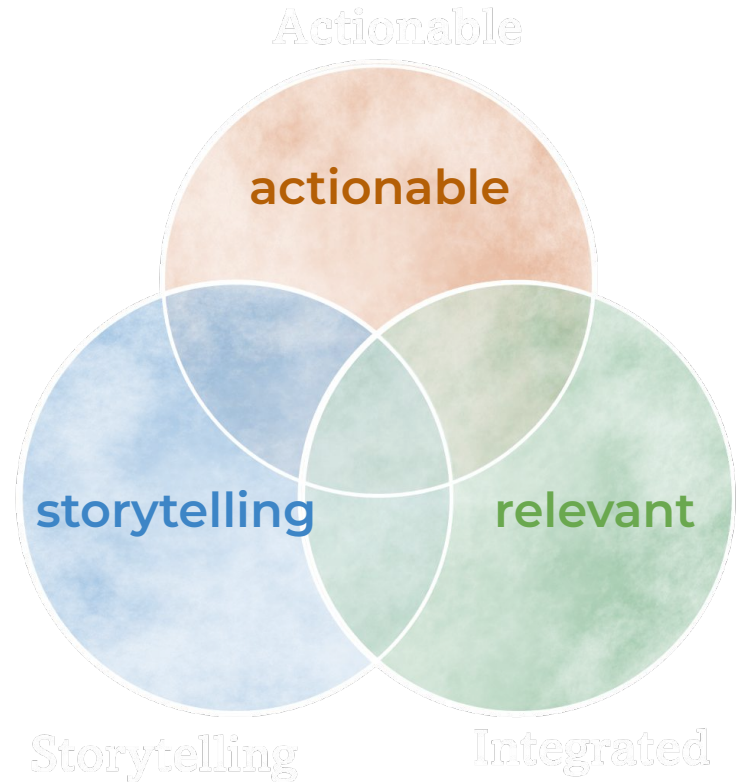
- What is 1 MTCO₂e?
- Abstracts the problem
- Cannot be directly managed
- Doesn't relate to tangible community outcomes
- Leads to incremental, linear reductions
- Blindspot on systemic/underlying solutions & out-of-boundary impacts
- Puts onus on climate staff, not all staff

Indicators Beyond GHG Inventories

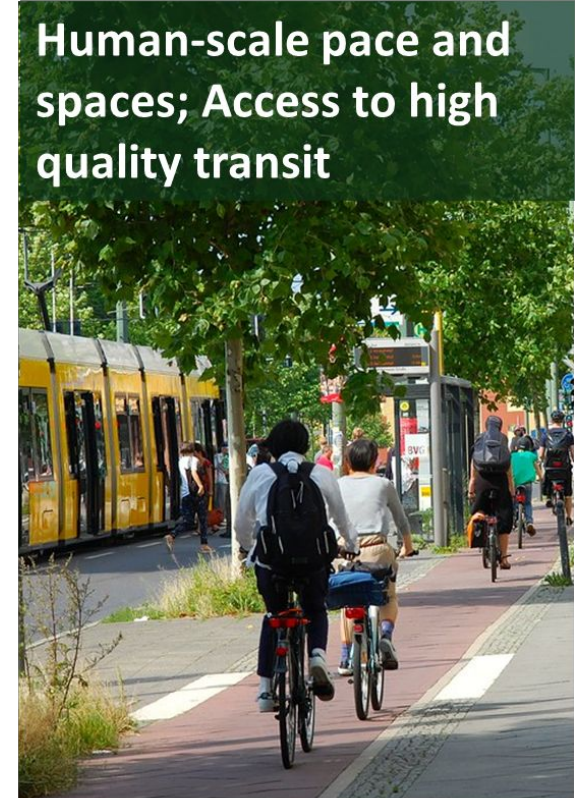
Use Cases / Rationale

- More actionable
- Better storytelling
- More relevant to other City goals & community interests

Movement away from
CDP / global reporting



Revisioning our Goals for the Context



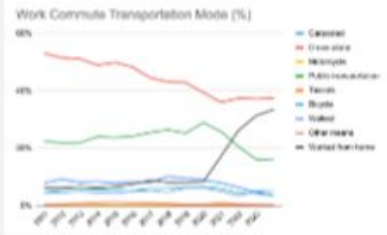
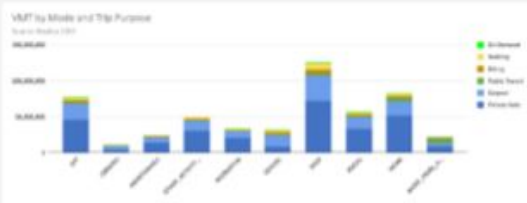
Poll:

**Which indicators do you
track and report?**

Implementation (non-GHG) Indicators

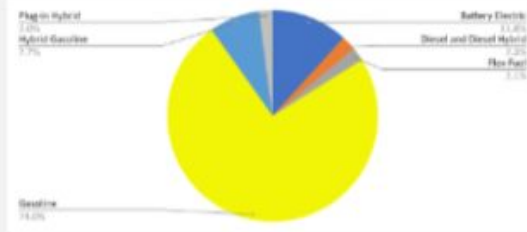
Mobility Patterns

Real-Life Goal: Reduce the amount of miles people have to drive in vehicles
Positive: Increase viability non-vehicle mobility options



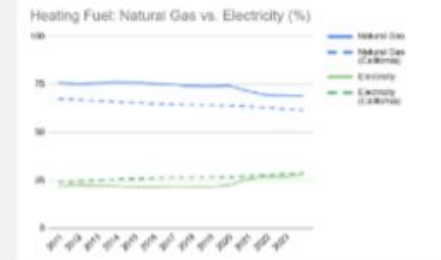
Zero Emissions Vehicles

Real-Life Goal: Reduce the number of gas/diesel vehicles
Positive: Increase the percentage of fleet that is Zero Emissions Vehicles
Access: Increase the affordability of EV's and equitable access to EVSE



Decarbonizing Homes

Real-Life Goal: Reduce the number of gas appliances/use in buildings
Positive: Increase the availability of energy efficiency and clean energy



Indicators

Demo

Telling Your Important Climate Action Stories

Poll:

**What struggles have you
experienced trying to get
your story out there?**

What Makes a Good Story? (i.e. what editors look for)

- A strong central character
- Novelty
- Conflict/tension
- A compelling narrative
(x was a challenge but we overcame it)
- A counter-intuitive take
- A news hook (e.g. the affordability crisis/rising cost of living, housing crisis, the Trump Administration's actions)

Building Decarbonization Could Push Out Low-Income Renters. A San Francisco Program Hopes to Prevent That

A Mission District demonstration project is gauging the cost of fully electrifying low-income rental properties while others will work to convince landlords and tenants of the benefits.

By Twilight Greenaway
January 14, 2025



California Cities Planned to Shut off Gas in New Buildings, but a Lawsuit Turned it Back On. Now What?

A growing number of local governments in the state are adopting efficiency-based building codes in a continued push toward electrification for decarbonization.

By Twilight Greenaway
September 30, 2024



In California, a Push to Decommission Gas Lines in Low-Income Neighborhoods Moves Forward

Neighborhood-scale decarbonization is an efficient way to electrify neighborhoods that might otherwise be left behind.

By Twilight Greenaway
June 22, 2025



Storytelling Exercise Prompts

1. a) Brainstorm a story idea/frame about something you're working on; or
b) Use one of the indicators in the slides shared to craft a story idea
2. Share what you wrote with 1-2 others in the audience (2-3 min each)

Q&A

Next Steps

Beta Test or Join Indicators Conversation

Feedback:

- How likely are you to check out the tool?
- Did you gain any new insight or curiosity? If so please describe

Sign up for next steps:

- Beta test the tool for your city this summer
- Join the conversation about going beyond GHG inventories