carbon*n* Climate Registry and Clear Path as integrated tools for reporting GHG emissions / City Climate Planner accreditation program

Global Platform for sustainable cities (GPSC)

Expert meeting – Measuring the Impact of Urban Planning Strategies on GHG Emissions

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23-24.04.2018

Washington D.C

Content

1. ICLEI
2. Low Carbon Cities Agenda
3. Carbonn Center
4. carbon*n* Climate Registry
5. Clear Path
6. Integration process
7. Supported initiatives
8. City Climate Planner

ICLEI – Local governments for sustainability (I)

Who we are?

ICLEI is the leading global network of more than 1,500 cities, towns and regions committed to building a sustainable future.

Source: ICLEI Website

ICLEI – Local governments for sustainability (II)

Our vision

ICLEI envisions a world of sustainable cities that confront the realities of urbanization, adapt to social and economic trends and prepare for the impacts of climate change and other urban challenges. This is why ICLEI unites local and regional governments in creating positive change through collective learning, exchange and capacity building.

ICLEI – Local governments for sustainability (III)

Our approach

The ICLEI Network takes an integrated approach to sustainable development, striving to become sustainable, low-carbon, Eco mobile, resilient, biodiverse, resource-efficient, healthy and happy, with a green economy and smart infrastructure.

Our 10 Urban Agendas are an expression of our integrated approach. ICLEI forges strategic partnerships with business and financial institutions to strengthen our results and bring about global change with a coalition of able partners. We also work to ensure that strong policy environments support local action through our national and global advocacy advancements.

Our cumulative knowledge and ambitions will continue to drive our work.

Low Carbon City Agenda

- A low-carbon city recognizes its responsibility to act.
- It pursues a step-by-step approach towards carbon neutrality, urban resilience and energy security, supporting an active green economy and stable green infrastructure.
- The local government collaborates with other levels of government on optimizing climate action through effective vertical integration.
- Together with other cities, low-carbon cities look to scale up their efforts, conform to global standards, report to national and global platforms, and continuously improve their performance towards low carbon, sustainable development.

Carbon*n* Climate Registry (cCR)

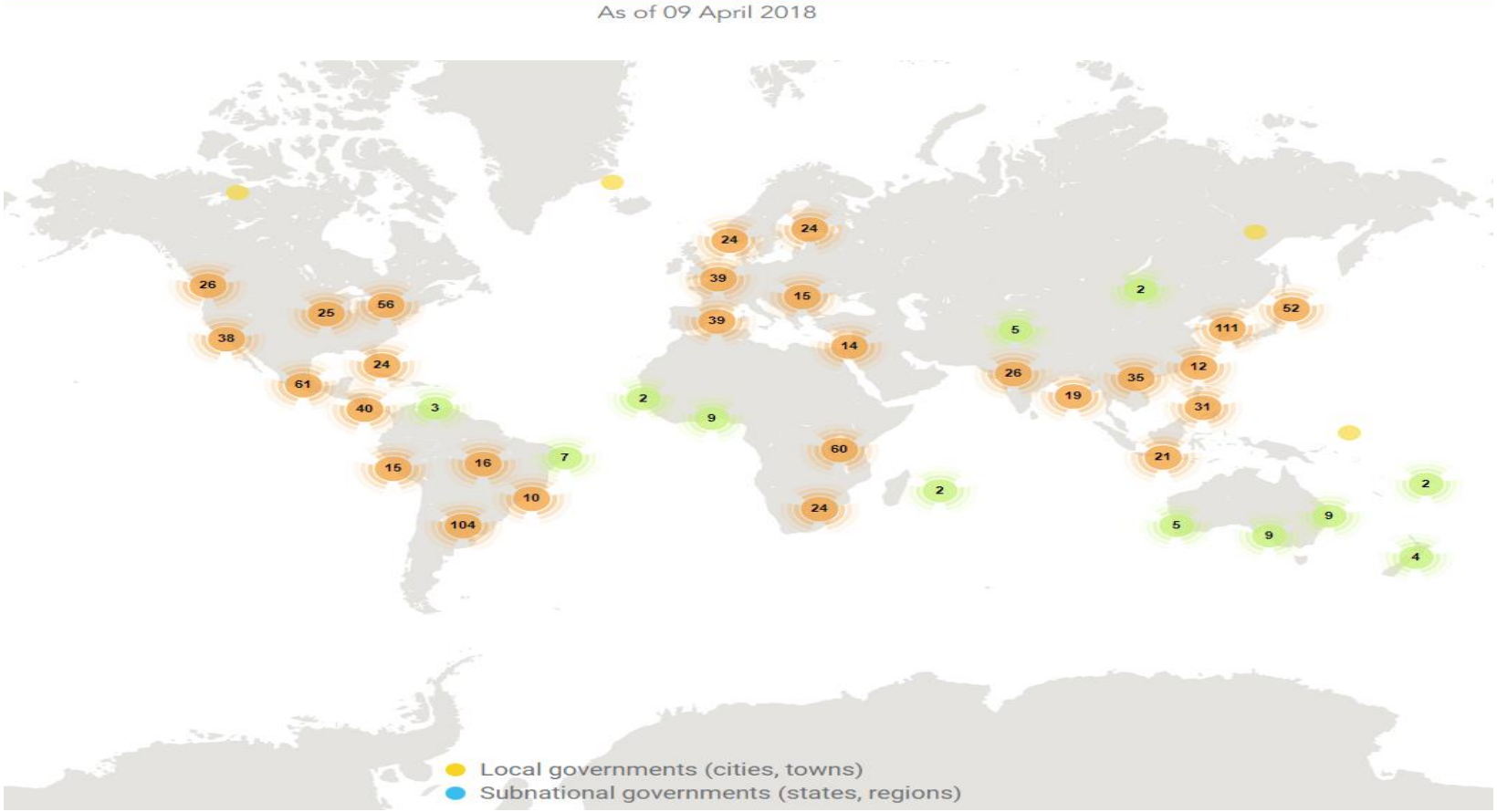
ICLEI Local Governments for Sustainability

- **Introduction**
- **Reporting elements**
- **Benefits of reporting**

Carbonn Climate Registry (cCR)

Source: carbonn climate registry website – Updated to 09.04.2018

Carbon*n* Climate Registry (cCR)



Source: carbonn climate registry website – Updated to 09.04.2018

cCR – Core reporting elements

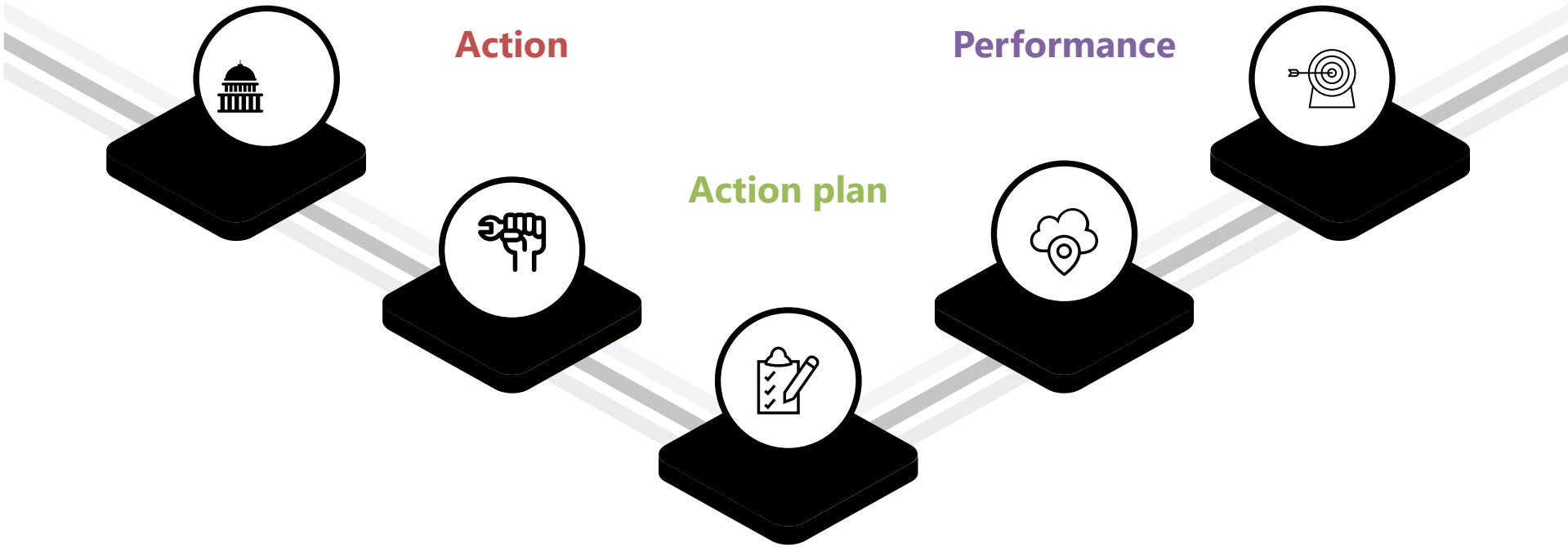
Background info

Action

Action plan

Performance

Target

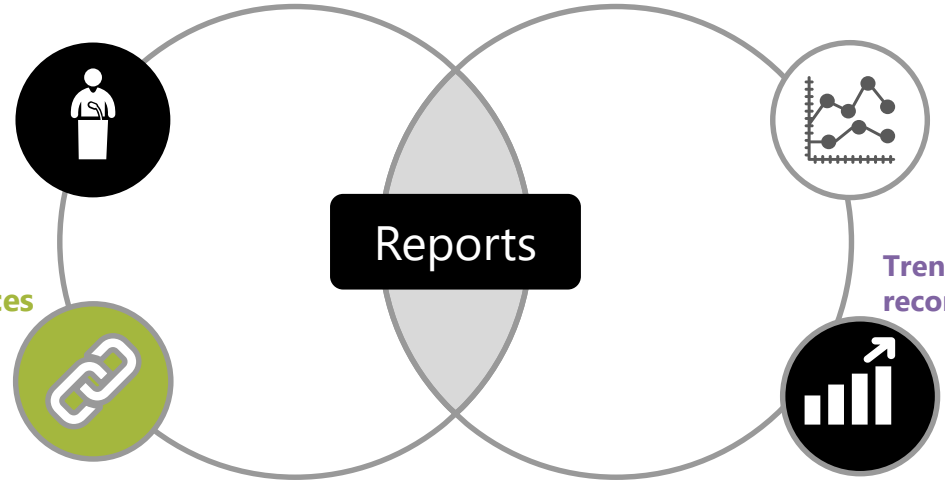


Basic reporting requirement: Background info+ any other one element

cCR – Benefits of reporting

Participate UN climate advocacy

Profile page with infographics



Connects to 15 thematic task forces

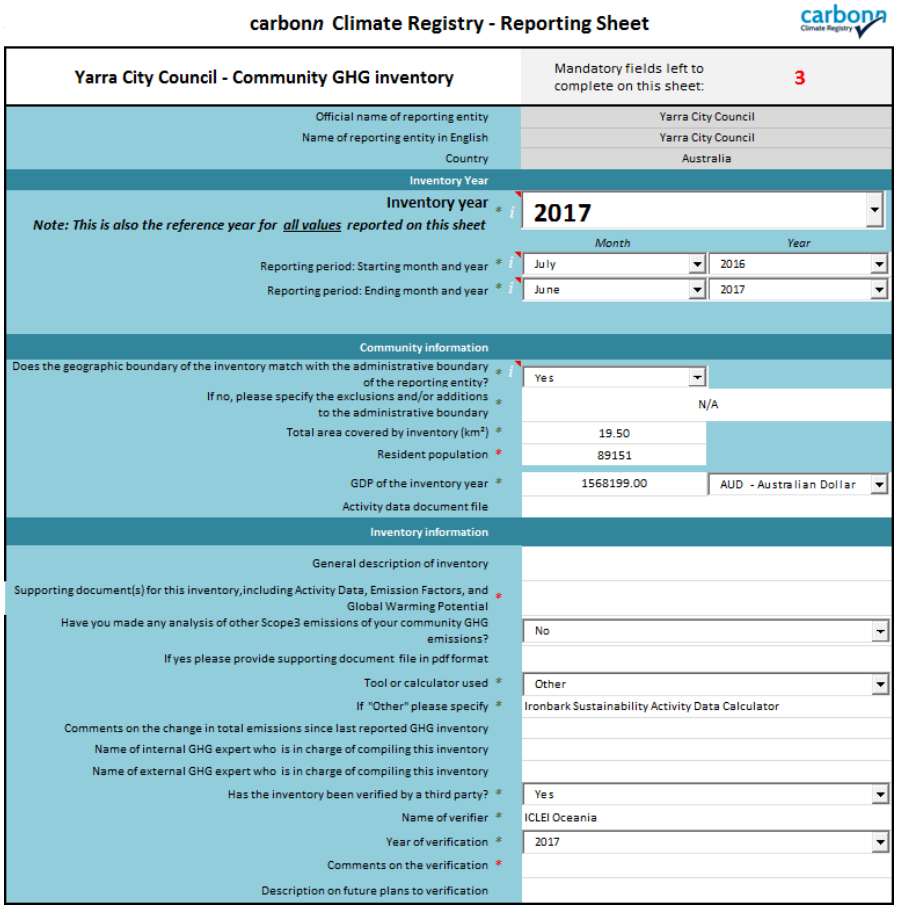
Trend analysis based recommendations

cCR – GHG reporting tab (I)

- cCR includes 2 GHG inventories reporting tabs
- 1 based on GPC basic requirements for community scale inventories
- 1 based on a simplified corporate inventory for local government activities

cCR – GHG reporting tab (II)

GPC aligned inventory tab



carbonn Climate Registry - Reporting Sheet

Yarra City Council - Community GHG inventory	Mandatory fields left to complete on this sheet: 3
Official name of reporting entity	Yarra City Council
Name of reporting entity in English	Yarra City Council
Country	Australia
Inventory Year	
Inventory year * ***Note: This is also the reference year for all values reported on this sheet***	**2017**
	Month / *Year*
Reporting period: Starting month and year *	July / 2016
Reporting period: Ending month and year *	June / 2017
Community information	
Does the geographic boundary of the inventory match with the administrative boundary of the reporting entity? *	Yes
If no, please specify the exclusions and/or additions to the administrative boundary *	N/A
Total area covered by inventory (km²) *	19.50
Resident population *	89151
GDP of the inventory year *	1568199.00 / AUD - Australian Dollar
Activity data document file	
Inventory information	
General description of inventory	
Supporting document(s) for this inventory, including Activity Data, Emission Factors, and Global Warming Potential *	
Have you made any analysis of other Scope3 emissions of your community GHG emissions?	No
If yes please provide supporting document file in pdf format	
Tool or calculator used *	Other
If "Other" please specify *	Ironbark Sustainability Activity Data Calculator
Comments on the change in total emissions since last reported GHG inventory	
Name of internal GHG expert who is in charge of compiling this inventory	
Name of external GHG expert who is in charge of compiling this inventory	
Has the inventory been verified by a third party? *	Yes
Name of verifier *	ICLEI Oceania
Year of verification *	2017
Comments on the verification *	
Description on future plans to verification	

cCR – GHG reporting tab (III)

ICLEI Local Governments for Sustainability

GPC aligned inventory tab

Scope	GHG Emissions Source (By Sector and Sub-sector)	Status	If you can provide no value, please explain why (Notation keys)	Gases (in tonnes)									Data Quality		Explanatory comments	
				CO_2	CH_4	N_2O	HFC	PFC	SF_6	NF_3	total CO_2	CO_2(b) (optional)	Activity Data Quality Assesment	Emission Factors	Methodology used	Exclusions
	STATIONARY ENERGY															
	Residential buildings															
1	Emissions from fuel combustion within the city boundary			57625223.10	112111.33	33633.40	0.00	0.00	0.00	0.00	#####	0.00	Detailed activity data	More general emission factors		
2	Emissions from grid-supplied energy consumed within the city boundary			194027.06	284.12	732.36	0.00	0.00	0.00	0.00	#####	0.00	Modeled activity data using robust assumptions	More general emission factors		
3	Transmission and distribution losses from grid-supplied energy			34614.00	7177333.53	67.81	0.00	0.00	0.00	0.00	#####	0.00	Detailed activity data	More general emission factors		
	Commercial and institutional buildings and facilities															
1	Emissions from fuel combustion within the city boundary			36983172.18	71963.37	21583.01	0.00	0.00	0.00	0.00	#####	0.00	Detailed activity data	More general emission factors		
2	Emissions from grid-supplied energy consumed within the city boundary			373238.42	546.64	1409.03	0.00	0.00	0.00	0.00	#####	0.00	Modeled activity data using robust assumptions	More general emission factors		
3	Transmission and distribution losses from grid-supplied energy			45251.23	4607145.56	130.47	0.00	0.00	0.00	0.00	#####	0.00	Detailed activity data	More general emission factors		
	Manufacturing industries and construction															
1	Emissions from fuel combustion within the city boundary			12895125.70	25087.73	7526.34	0.00	0.00	0.00	0.00	#####	0.00	Detailed activity data	More general emission factors		
2	Emissions from grid-supplied energy consumed within the city boundary			130138.89	190.57	491.21	0.00	0.00	0.00	0.00	#####	0.00	Modeled activity data using robust assumptions	More general emission factors		
3	Transmission and distribution losses from grid-supplied energy			15775.43	1606138.17	45.48	0.00	0.00	0.00	0.00	#####	0.00	Detailed activity data	More general emission factors		
	Energy industries															
1	Emissions from energy production used in power plant auxiliary operations within the city		Included Elsewhere													
2	Emissions from grid-supplied energy consumed by energy industries		Included Elsewhere													
3	Emissions from transmission and distribution losses from grid-supplied energy used in power plant auxiliary operations		Included Elsewhere													
1	Emissions from energy generation supplied to the grid		Included Elsewhere													
	Agriculture, forestry and fishing activities															
1	Emissions from fuel combustion within the city boundary		Included Elsewhere													
2	Emissions from grid-supplied energy consumed within the city boundary		Included Elsewhere													
3	Transmission and distribution losses from grid-supplied energy consumption		Included Elsewhere													
	Non-specified sources															
1	Emissions from fuel combustion within the city boundary		Not Occurring													
2	Emissions from grid-supplied energy consumed within the city boundary		Not Occurring													
3	Emissions from transmission and distribution losses from grid-supplied energy consumption		Not Occurring													
	Fugitive emissions from mining, processing, storage, and transportation of coal															
1	Emissions from fugitive emissions within the city boundary		Not Occurring													
	Fugitive emissions from oil and natural gas systems															
1	Emissions from fugitive emissions within the city boundary		Not Occurring													
Scope	GHG Emissions Source (By Sector and Sub-sector)		Notation keys	CO_2	CH_4	N_2O	HFC	PFC	SF_6	NF_3	total CO_2	CO_2(b) (optional)	Activity Data	Emission Factors	Methodology used	Exclusions
	TRANSPORTATION															
	On-road transportation															
1	Emissions from fuel combustion on-road transportation occurring in the city			329278.96	1418.32	5244.00					#####		Highly modelled or uncertain activity data	More general emission factors		
2	Emissions from grid-supplied energy consumed in the city for on-road transportation		Not Occurring													
3	Emissions from portion of transboundary journeys occurring outside the city, and transmission and distribution losses from grid-supplied energy consumption		Included Elsewhere													
	Railways															
1	Emissions from fuel combustion for railway transportation occurring in the city		Not Occurring													
2	Emissions from grid-supplied energy consumed in the city for railways		Included Elsewhere													
3	Emissions from portion of transboundary journeys occurring outside the city, and transmission and distribution losses from grid-supplied energy		Included Elsewhere													

ClearPath

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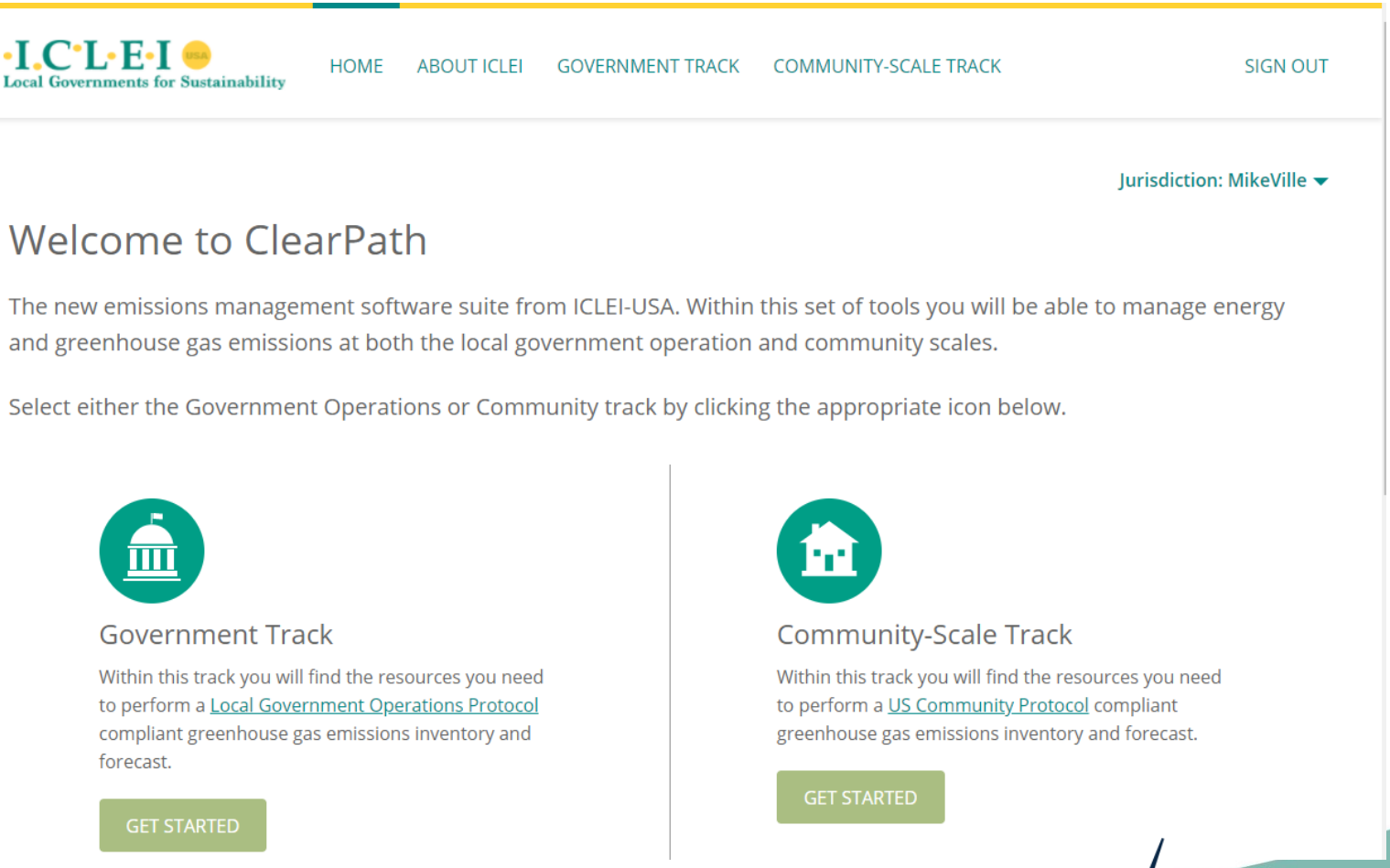

ClearPath

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ICLEI Local Governments for Sustainability

What is ClearPath?

ClearPath is a powerful, advanced web application for energy and emissions management. As a cloud-based tool, it's easier than ever to store your data, collaborate with colleagues, and use new features as soon as they are available. With hundreds of users and free availability of our community-scale inventory module to Global Covenant of Mayors signatories nationwide, ClearPath is the most widely-used software tool for managing local climate mitigation efforts.

ClearPath

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Why ClearPath?

- Develop protocol-compliant emissions inventories
- Forecast multiple scenarios for future emissions
- Analyze the costs and benefits of emissions reduction measures
- Visualize alternative planning scenarios
- Track your progress over time
- Guidance and training at your fingertips

ClearPath

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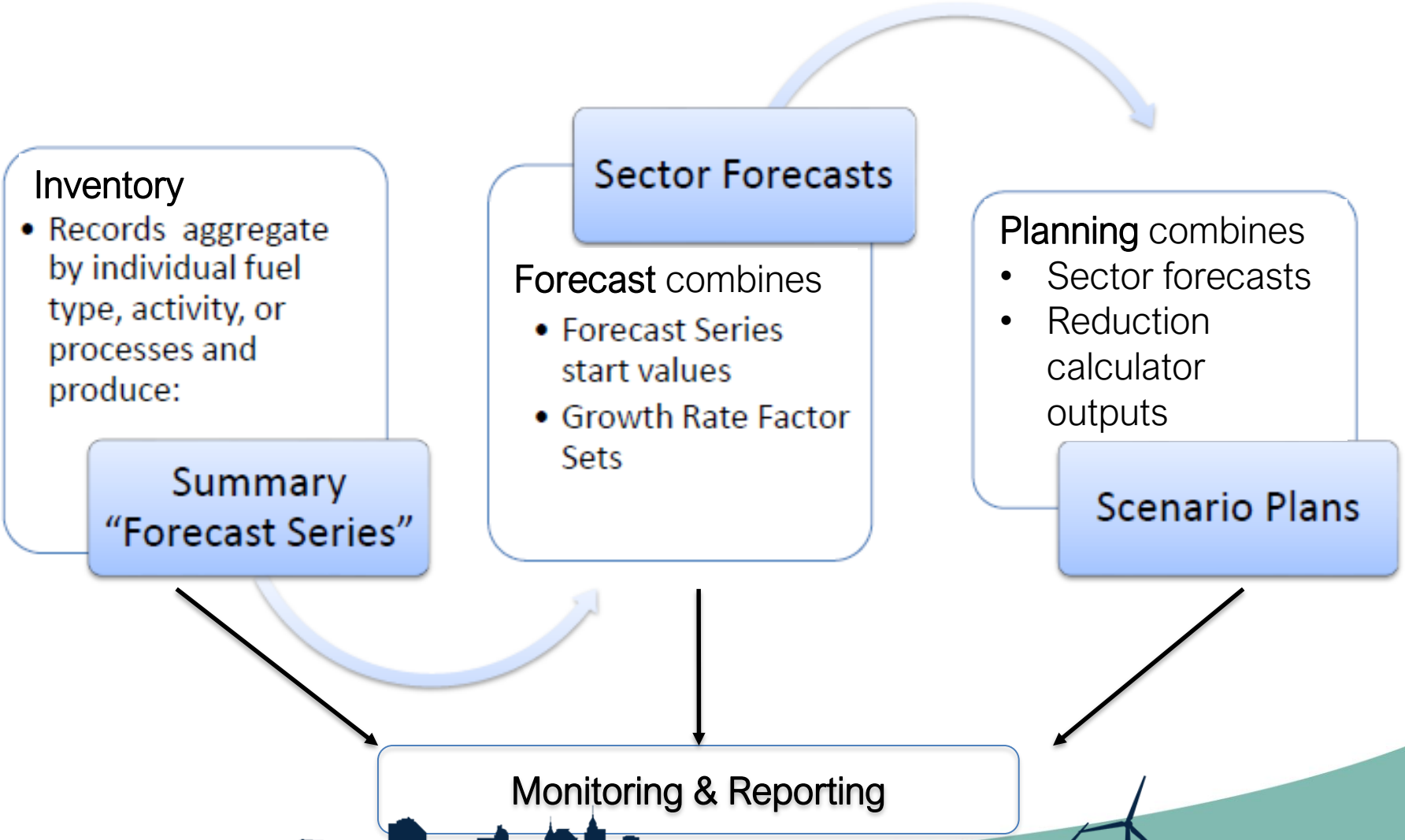
ClearPath Features

- Cloud data storage
- Multiple users
- **Inventory Module** for performing calculations and reporting around the **Global Protocol for Community-Scale Emissions**(GPC) and the **U.S. Community Protocol**
- Integrated, dynamic **Forecasting Module**
- Integrated **Planning Module** for decision-support on climate action planning
- Integrated **Monitoring Module** for tracking progress
- Useful charts and visualizations

Feature Summary

- Online, “Cloud-Based” Application
- Collaboration supported w/ multiple users per jurisdiction and multiple jurisdictions per user
- Secure data storage with daily backups
- Remote support and training
- Track progress over time
- ICLEI in C[illegible]t d[illegible]ment mode

Modules in ClearPath



Evolution of ClearPath

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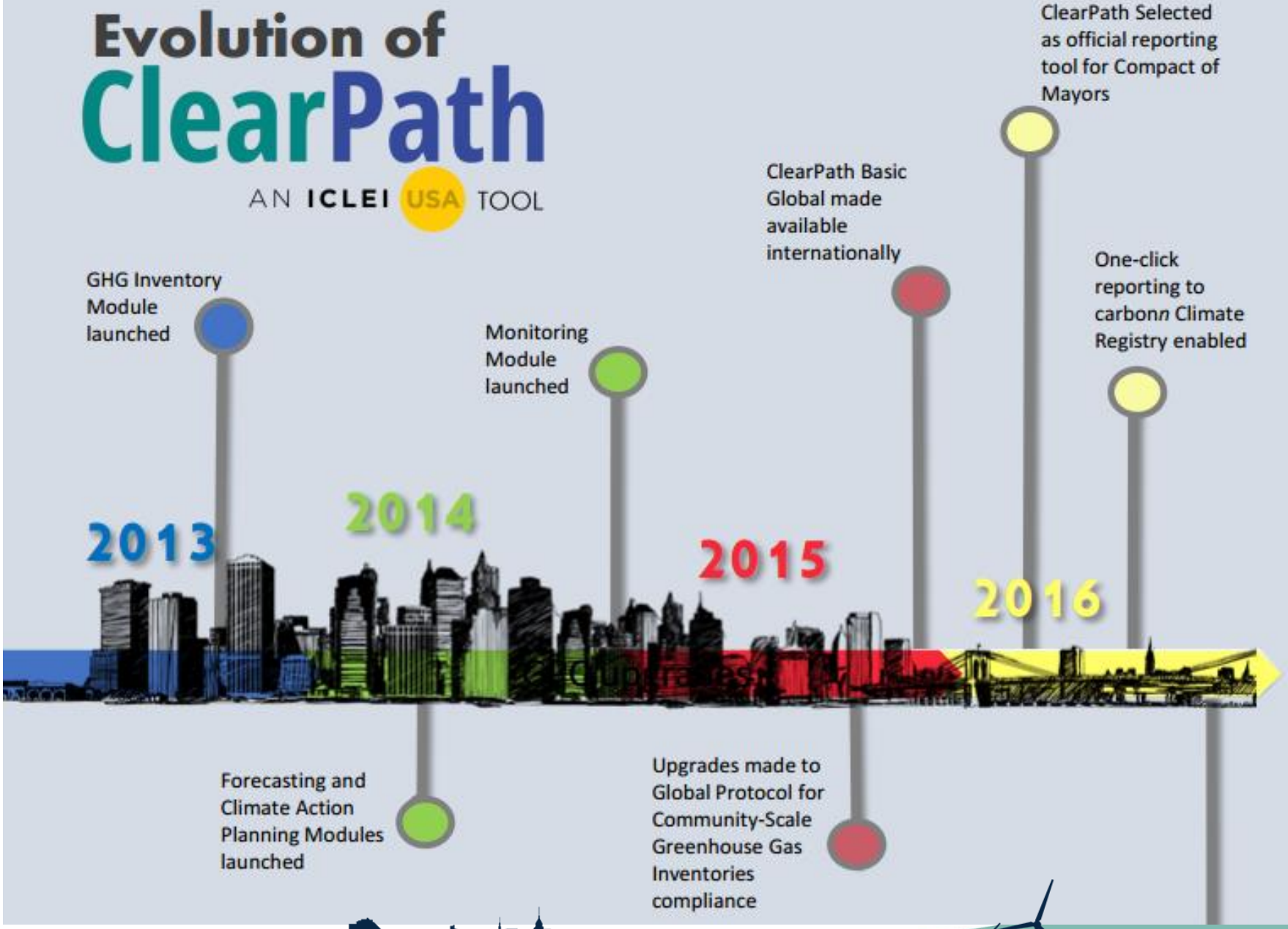
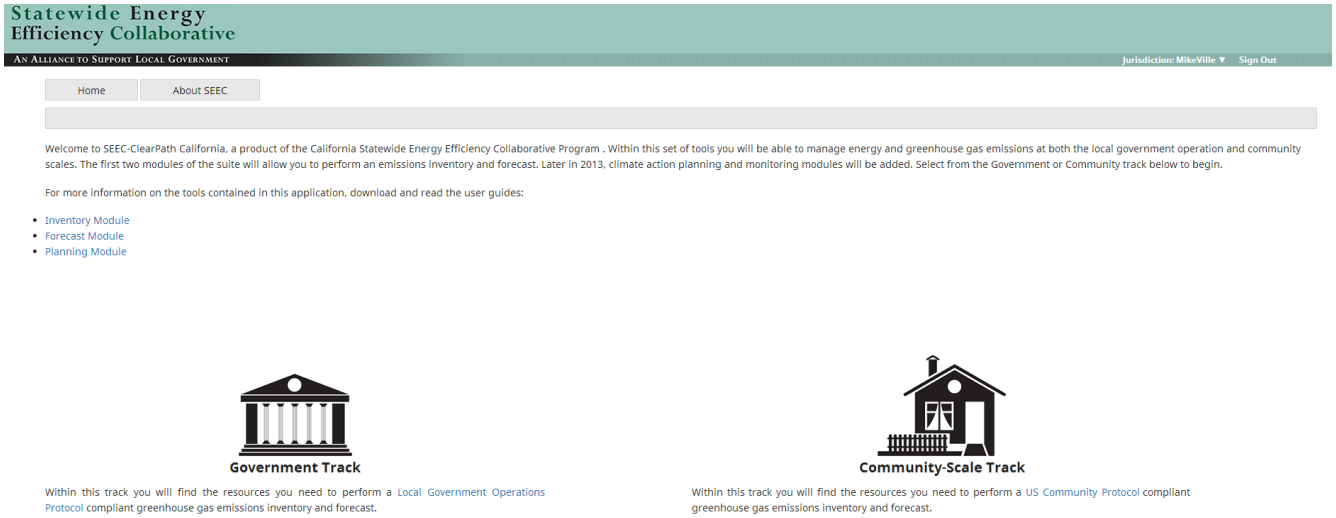


Inventory Module



- Manage emissions across Local Governments and Community tracks with Protocol reporting standards
- Emission factors and other coefficients are user-defined except for stationary fuels
- Specific reports for scopes, sectors, and Global Covenant of Mayors reporting
- Help and instructions text available in every calculator and sector

Basic Emissions Calculations

Activity Data X ***Emissions Factor***

= ***Emissions Estimate***

Activity Data

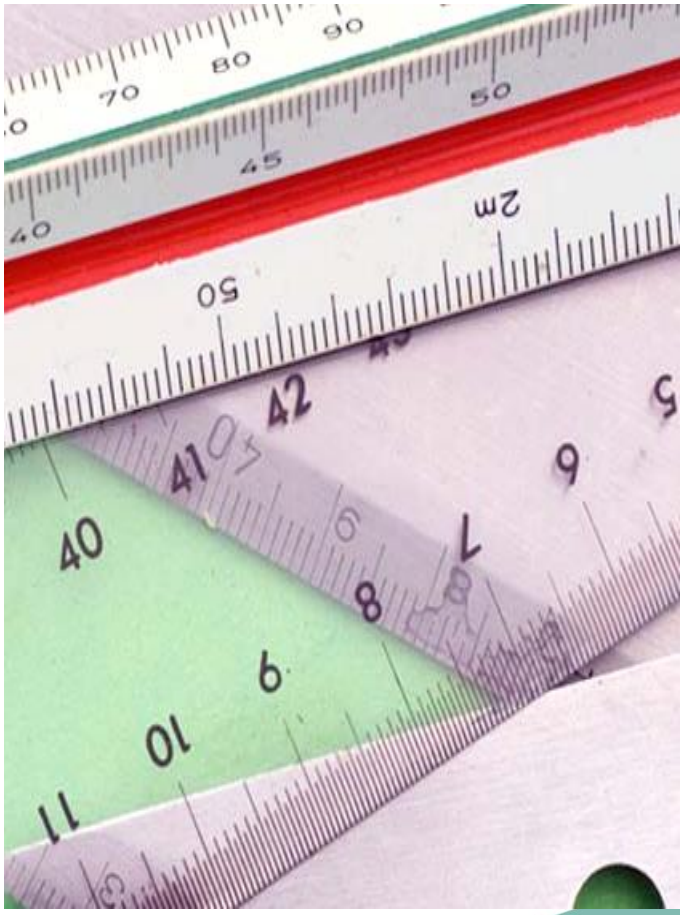
- *E.g. electricity consumption (kWh)*

Emissions Factor

- *E.g. CO_2 emissions/kWh consumed*

Electricity Emission Factor

- *630.89 lbs of CO2e per MWh*

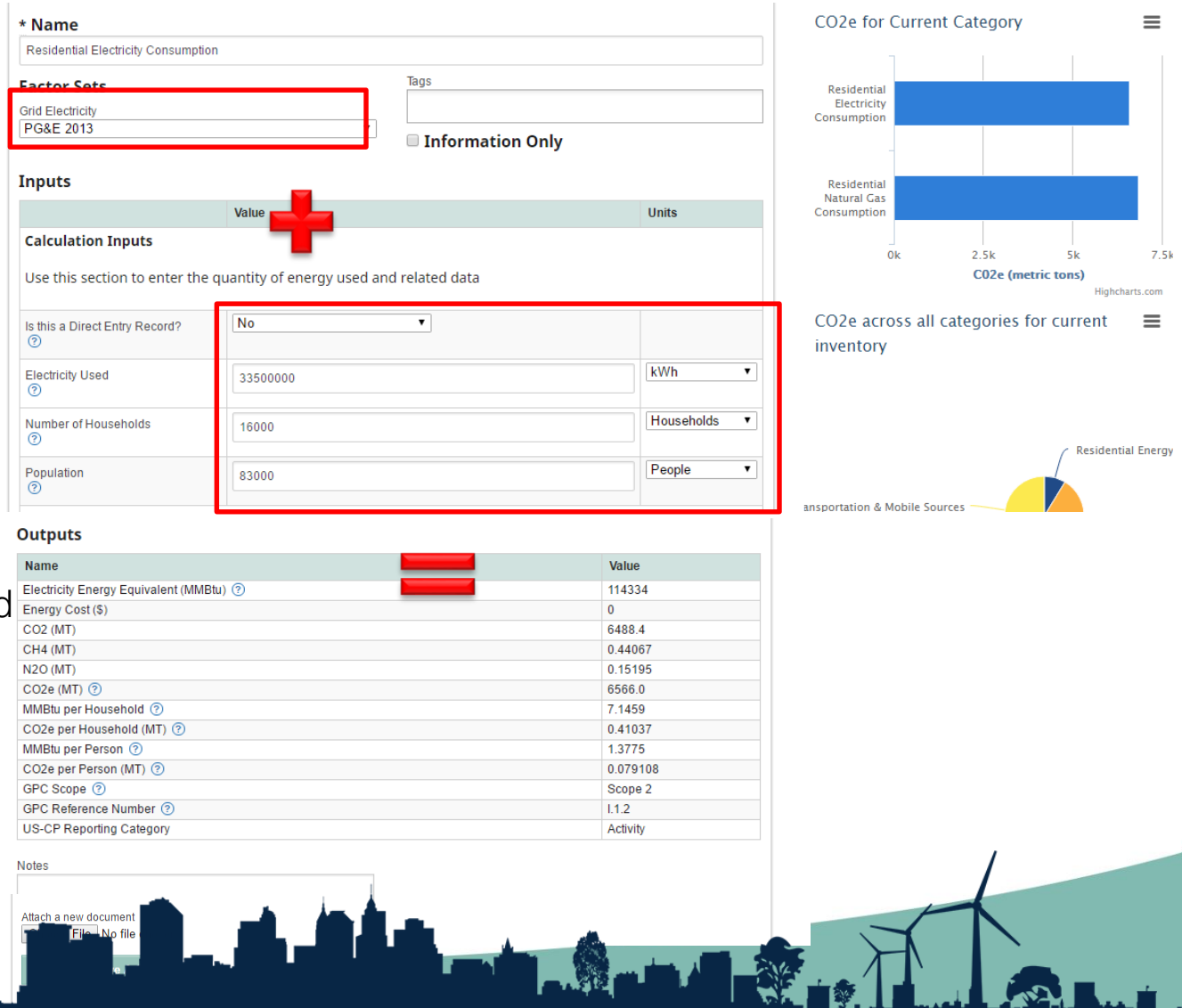


Inventory Calculators

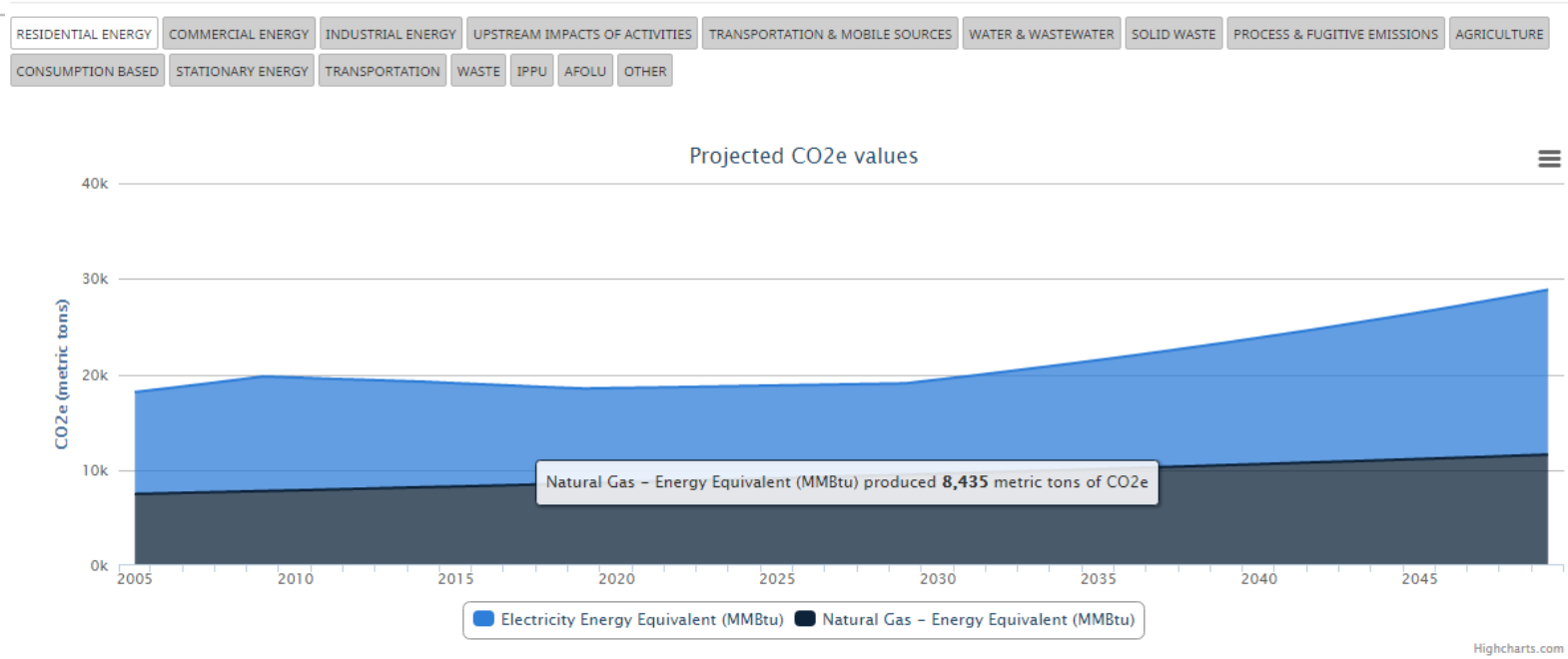
Linked Data from Factor Sets or GWPs

Record Inputs

Outputs calculated on-the-fly as you add data.

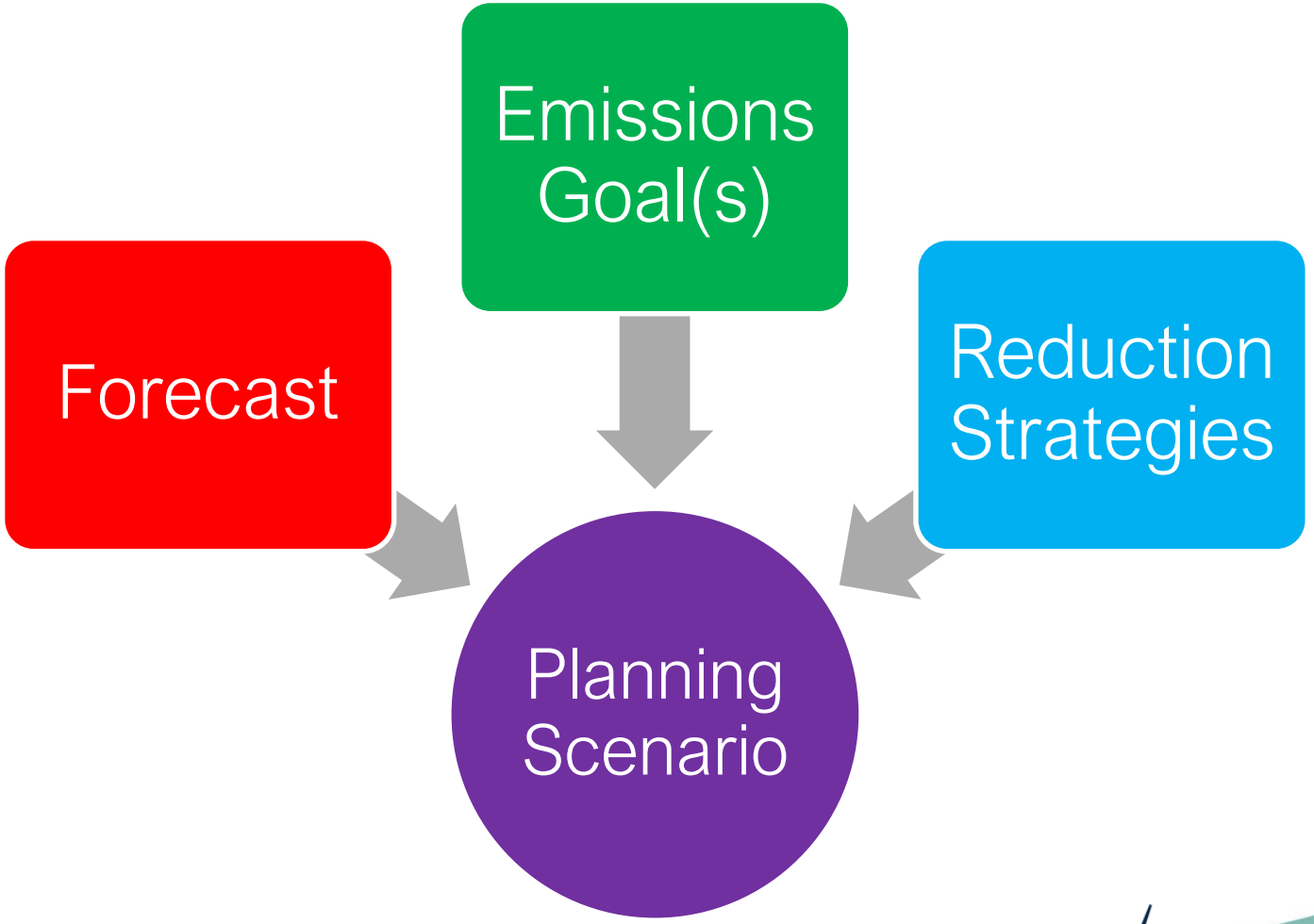


Forecast Module

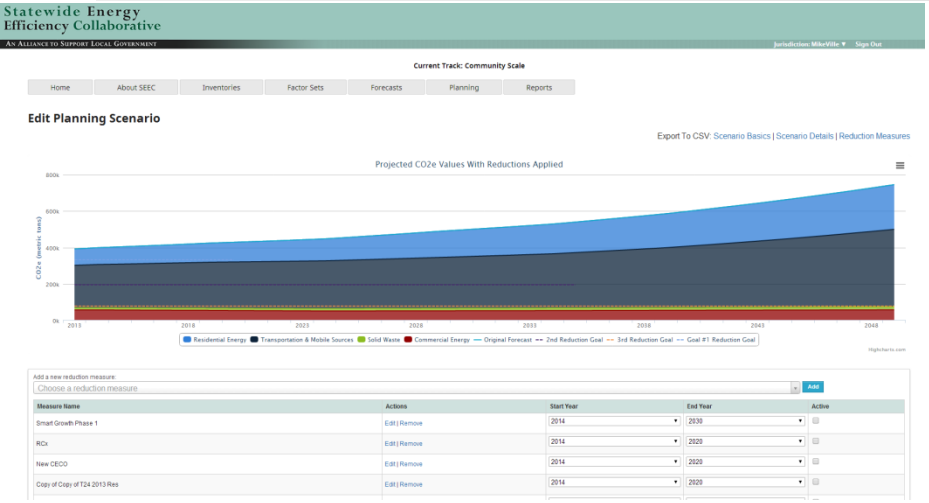


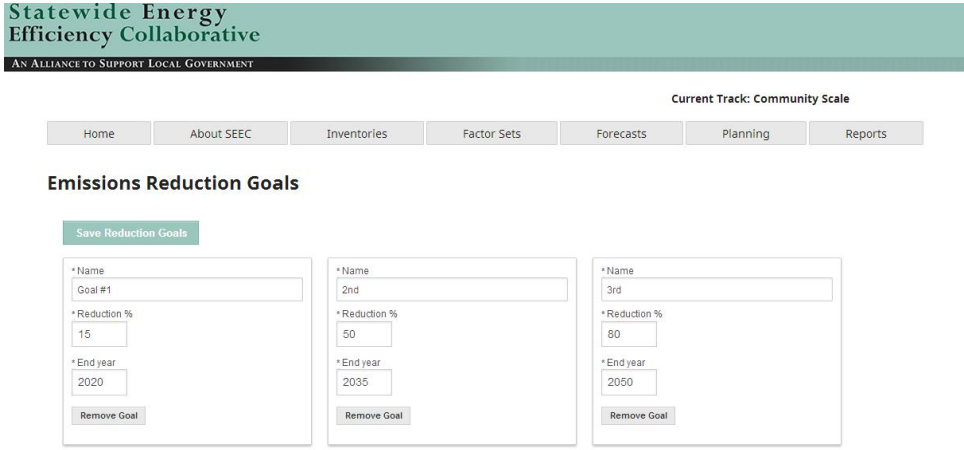
- Creates projections of emissions trends based on anticipated demographic, economic and energy changes
- Forecast tracks for Government and Community
- Data linked from inventory module to forecast module or user can manually enter start values

Putting It Together



Planning Module





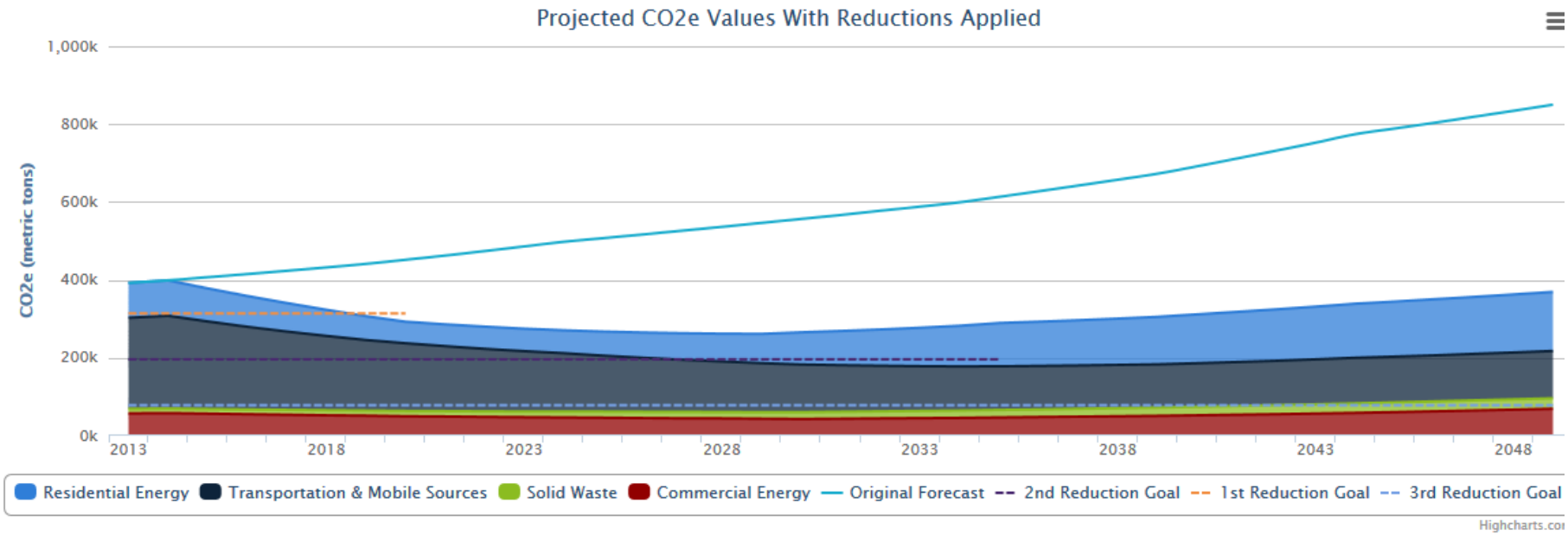
- Analysis of emissions reductions potential from Climate Action Plan measures
- Accounting for programs that expand year over year or wear out over time.
- Employing sophisticated algorithms to avoid double-counting of emissions reductions.
- Performing financial impact calculations to help convey the co-benefits of measures.

Scenario Graph

ICLEI Local Governments for Sustainability

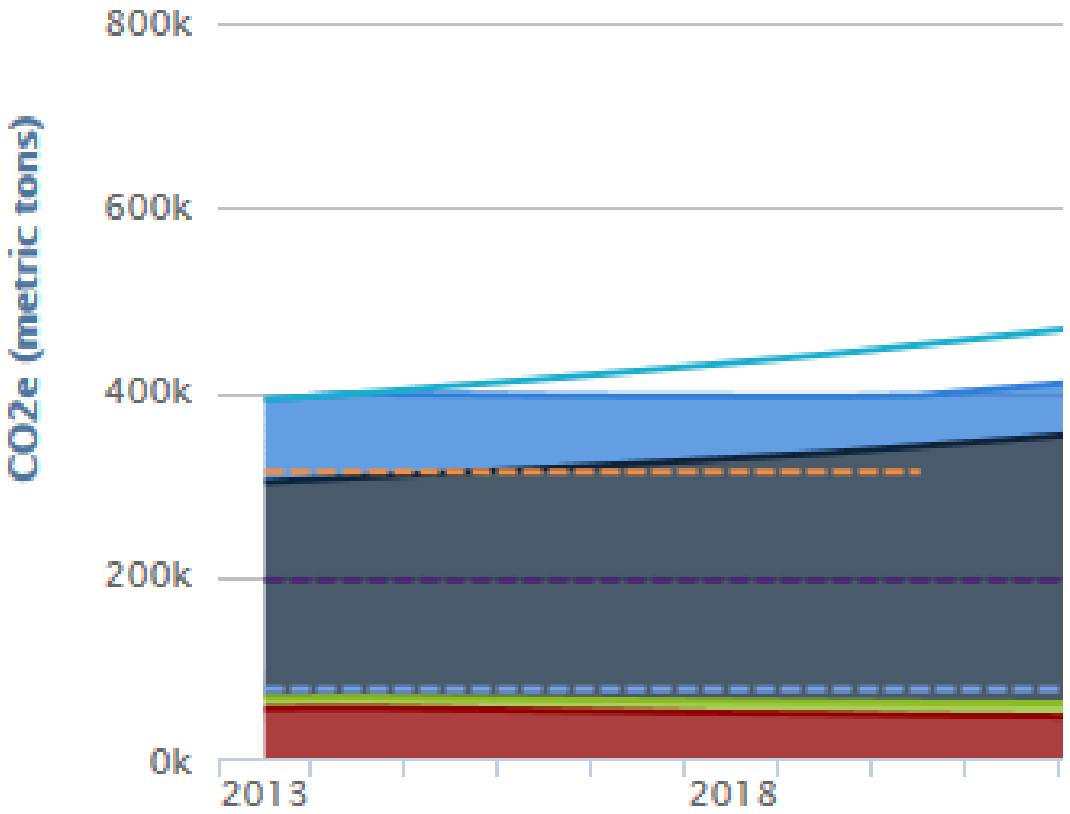
Edit Planning Scenario

Export To CSV: Scenario Basics | Scenario Details | Reduction Measur



Net Present Value

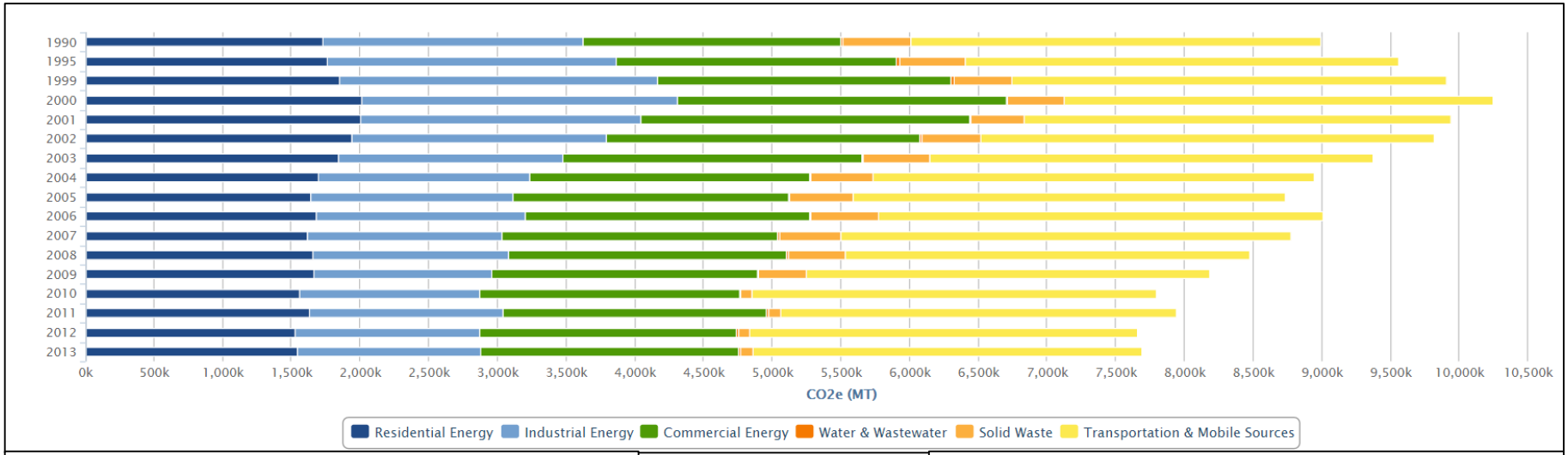
Implementation Over Time

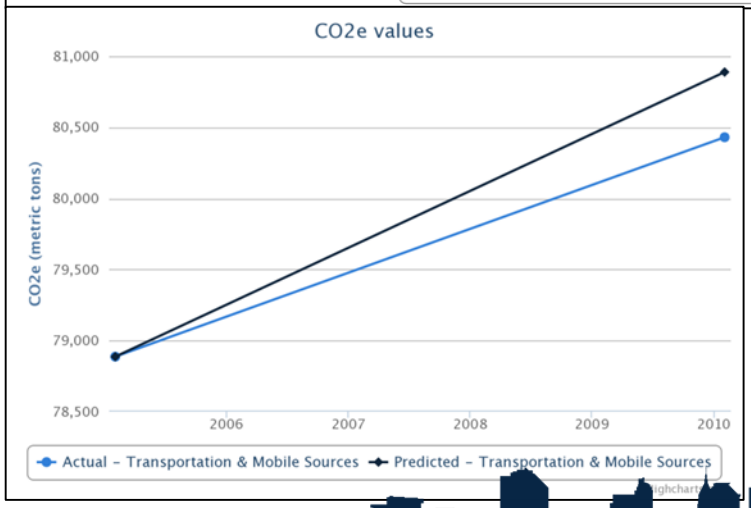


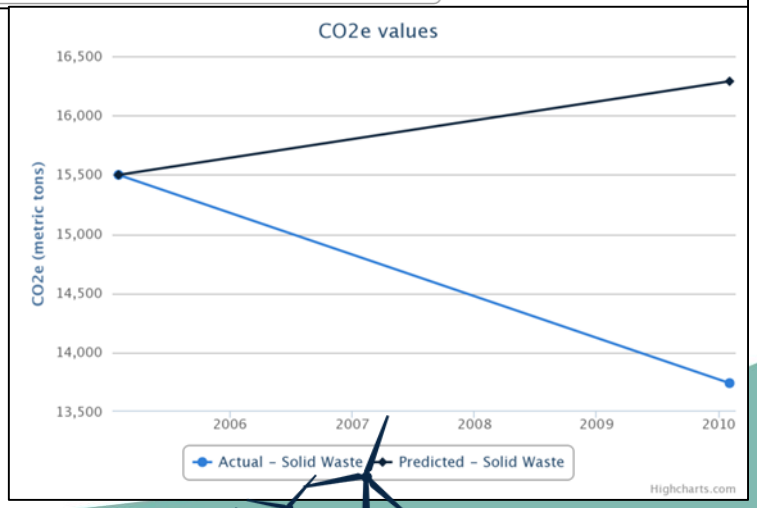
Co-Benefits CBA Outputs

C	D	E	F	G	H	I	J
Reduction strategy	Usage change	CO2e change	Cost to Home Buyers ($ / Year)	Electricity Cost Savings ($ / Year)	Natural Gas Cost Savings ($ / Year)	Benefit to Local Firms ($ / Year)	Cost to Local Government ($ / Year)
i Test Reco	0	0	$0.00	$0.00	$0.00	$0.00	$0.00
i Test Reco	-16288	-485	($7,211,538.46)	$459,022.12	$341,610.58	$21,634,615.38	($14,423.08)
i Test Reco	-16288	-463	($6,934,171.60)	$882,734.84	$656,943.42	$20,802,514.79	($13,868.34)
i Test Reco	-16288	-442	($6,667,472.69)	$1,273,175.25	$947,514.54	$20,002,418.07	($13,334.95)
i Test Reco	-16288	-422	($6,411,031.43)	$1,632,275.96	$1,214,762.24	$19,233,094.30	($12,822.06)
i Test Reco	-16288	-403	($6,164,453.30)	$1,961,870.14	$1,460,050.76	$18,493,359.90	($12,328.91)
i Test Reco	-16288	-379	($5,927,358.94)	$2,263,696.32	$1,684,673.96	$17,782,076.83	($11,854.72)
i Test Reco	0	0	$0.00	$2,176,631.07	$1,619,878.81	$0.00	$0.00
i Test Reco	0	0	$0.00	$2,092,914.49	$1,557,575.78	$0.00	$0.00
i Test Reco	0	0	$0.00	$2,012,417.78	$1,497,669.01	$0.00	$0.00
Test Reco	0	0	$0.00	$1,935,017.10	$1,440,066.36	$0.00	$0.00

Monitoring Progress Over time







ClearPath Users

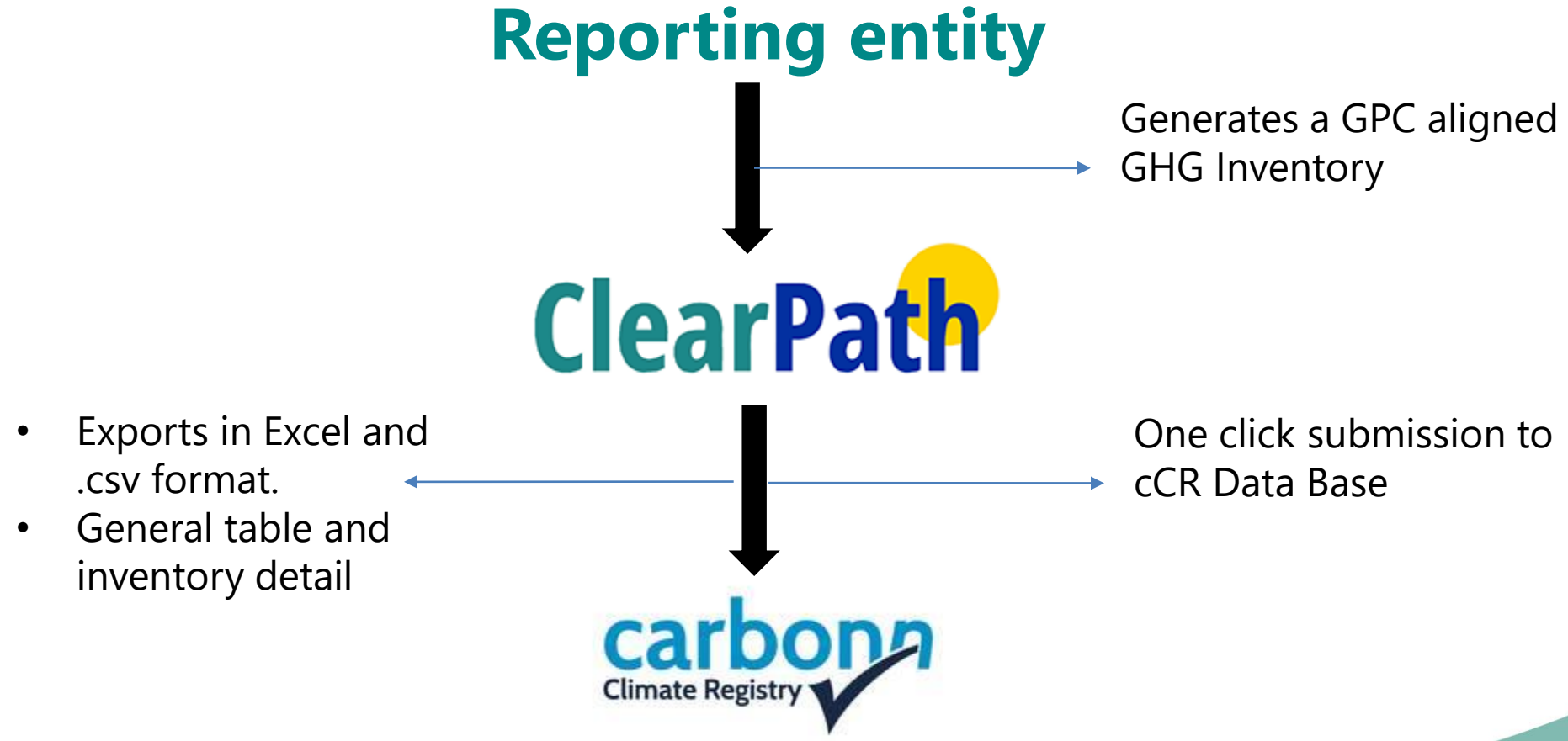
- 383 Jurisdictions in US----------> 953 Community Scale inventories
- 28 global----------> 48 Community Scale Inventories

Supported initiatives

- cCR
  - Urban LEDS
  - Global Covenant of Mayor´s for Climate and Energy

- ClearPath
  - Global Covenant of Mayors for Climate and Energy

Integration of cCR and ClearPath



Excel and .csv capabilities (I)

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	
op_toker	Year	Population	GDP	Currency	Global Warming Potential	GPC Reference Numbe	Scope	GHG Emissions Source (By Sector and Subsector)	Notation Key	CO2	CH4	N2O	HFC	PFC	SF6	NF3	Total CO2e	CO2(b)	Activity Data Qual	Emission Factors	Comments
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I		STATIONARY ENERGY													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.1		Residential buildings													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.1.1	1	Emissions from fuel combustion within the city boundary		40594							40594		High	Low	Emission Factors source: T
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.1.2	2	Emissions from grid-supplied energy consumed within the city boundary		22293.4	1.7	0.2					22394		High	High	Electric vehicle electricity co
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.1.3	3	Transmission and distribution losses from grid-supplied energy													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.2		Commercial and institutional buildings and facilities													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.2.1	1	Emissions from fuel combustion within the city boundary		31012							31012		High	Low	Emission Factors source: T
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.2.2	2	Emissions from grid-supplied energy consumed within the city boundary		31769	2.7	0.3					31924.1		High	Medium	Electric vehicle consumptio
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.2.3	3	Transmission and distribution losses from grid-supplied energy													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.3		Manufacturing industries and construction													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.3.1	1	Emissions from fuel combustion within the city boundary	IE	23444.4	4.6	0.9					23811.7		Medium	Medium	"Commercial & Institutional
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.3.2	2	Emissions from grid-supplied energy consumed within the city boundary	IE												"Commercial & Institutional
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.3.3	3	Transmission and distribution losses from grid-supplied energy													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.4		Energy industries													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.4.1	1	Emissions from energy production used in power plant auxiliary operations within the city	NO												
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.4.2	2	Emissions from grid-supplied energy consumed by energy industries	NO												
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.4.3	3	Emissions from transmission and distribution losses from grid-supplied energy used in power													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.4.4	1	Emissions from energy generation supplied to the grid													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.5		Agriculture, forestry and fishing activities													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.5.1	1	Emissions from fuel combustion within the city boundary	NO												
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.5.2	2	Emissions from grid-supplied energy consumed within the city boundary	NO												
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.5.3	3	Transmission and distribution losses from grid-supplied energy													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.6		Non-specified sources													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.6.1	1	Emissions from fuel combustion within the city boundary	IE	1074.3	2.7	0.8					1361.9		Medium	Medium	"Commercial & Institutional
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.6.2	2	Emissions from grid-supplied energy consumed within the city boundary	IE												"Commercial & Institutional
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.6.3	3	Transmission and distribution losses from grid-supplied energy													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.7		Fugitive emissions from mining, processing, store, and transportation of coal													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.7.1	1	Fugitive emissions from mining, processing, storage, and transportation of coal within the city	NO												
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.8		Fugitive Emissions from oil and natural gas systems													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	I.8.1	1	Fugitive emissions from oil and natural gas systems within the city boundary		0.9	83.61						2341.93		High	Low	Default calculation for fugitiv
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II		TRANSPORTATION													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.1		On-road transportation													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.1.1	1	Emissions from fuel combustion on-road transportation occurring in the city		55106							55106		Medium; Medium	Medium; Medium	Includes emissions from pas
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.1.2	2	Emissions from grid-supplied energy consumed in the city for on-road transportation		64.5							64.5		Medium	Low	The origin-destination metho
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.1.3	3	Emissions from transboundary journeys occurring outside the city, and T and D losses from g		50054							50054		Medium; Medium	Medium; Medium	Includes passenger cars and
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.2		Railways													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.2.1	1	Emissions from fuel combustion for railway transportation occurring in the city	NO												
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.2.2	2	Emissions from grid-supplied energy consumed in the city for railways	NO												
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.2.3	3	Emissions from transboundary journeys occurring outside the city, and T and D losses from g													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.3		Waterborne navigation													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.3.1	1	Emissions from fuel combustion for waterborne navigation occurring in the city	NO												
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.3.2	2	Emissions from grid-supplied energy consumed in the city for waterborne navigation	NO												
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.3.3	3	Emissions from transboundary journeys occurring outside the city, and T and D losses from g													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.4		Aviation													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.4.1	1	Emissions from fuel combustion for aviation occurring in the city	NO												
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.4.2	2	Emissions from grid-supplied energy consumed in the city for aviation	NO												
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.4.3	3	Emissions from transboundary journeys occurring outside the city, and T and D losses from g													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.5		Off-road transporation													
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.5.1	1	Emissions from fuel combustion for off-road transportation occurring in the city	IE												See "Off-road residential em
EEBE1F	2015	60572			IPCC 5th Assessment 100 Year '	II.5.2	2	Emissions from grid-supplied energy consumed in the city for off-road transportation	IE												Emissions from grid-supplie

General table

Excel and .csv capabilities (II)

A	B	C	D	E	F	G	H	I	J	
Id	Output Record Ids With Co2e	Inventory Record	Calculator	Gpc Scope	GPC Ref Number	Factor Profiles	Global Warming Potential	Category	Activity Source	Notes
71724	814728	Off-road residential emissions	Emissions from Off Road Ve	Scope 1	I.6.1		IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source	Source	Various fuels. In
71725	814750	Off-road emissions - Commercial & Institutional Buildings & Manufacturing Industries	Emissions from Off Road Ve	Scope 1	I.3.1		IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source	Source	Various fuels. In
71728		Emissions from fuel combustion for waterborne navigation occurring within the city bo	Notation Keys for Transport	Scope 1	II.3.1		IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source		
71726		Emissions from fuel combustion for railway transportation occurring within the city bou	Notation Keys for Transport	Scope 1	II.2.1		IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source		
71727		Emissions from grid-supplied energy consumed within the city boundary for railways	Notation Keys for Transport	Scope 2	II.2.2		IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source		
71730		Emissions from fuel combustion for aviation occurring within the city boundary	Notation Keys for Transport	Scope 1	II.4.1		IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source		
71729		Emissions from grid-supplied energy consumed within the city boundary for waterborr	Notation Keys for Transport	Scope 2	II.3.2		IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source		
71741		Emissions from grid-supplied energy consumed within the city boundary for off-road t	Notation Keys for Transport	Scope 2	II.5.2		IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source		Emissions from g
71740		Emissions from fuel combustion for off-road transportation occurring within the city bc	Notation Keys for Transport	Scope 1	II.5.1		IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source		See "Off-road re
71732		Emissions from grid-supplied energy consumed within the city boundary for aviation	Notation Keys for Transport	Scope 2	II.4.2		IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source		
71581	813331	Diesel Emissions - In-Boundary Transportation	On Road Transportation	Scope 1	II.1.1	PG&E 2015 (using eGRID 2014 & PG&E/TCR sources)	IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source	Source and Activi	Includes emissio
71589	813411	Gasoline Emissions - In-Boundary Transportation	On Road Transportation	Scope 1	II.1.1	PG&E 2015 (using eGRID 2014 & PG&E/TCR sources)	IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source	Source and Activi	Includes passer
71582	813345	Diesel Emissions - Out-of-Boundary Transportation	On Road Transportation	Scope 3	II.1.3	PG&E 2015 (using eGRID 2014 & PG&E/TCR sources)	IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source	Activity	Includes passer
71583	813359	Electric Vehicles - Transportation	On Road Transportation	Scope 2	II.1.2	PG&E 2015 (using eGRID 2014 & PG&E/TCR sources)	IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source	Activity	The origin-desti
71591	813432	Gasoline Emissions - Out-of-Boundary Transportation	On Road Transportation	Scope 3	II.1.3	PG&E 2015 (using eGRID 2014 & PG&E/TCR sources)	IPCC 5th Assessment 100 Year Va	Transportation & Mobile Source	Activity	Includes passer

Inventory Details

City Climate Planner

ICLEI Local Governments for Sustainability

CITY CLIMATE PLANNER

Led by Green Business Certification Inc. (GBCI) in partnership with World Resources Institute and ICLEI - Local Governments for Sustainability, the program aims to raise the global talent base of city climate planning professionals through training and professional certifications.

City Climate Planner

ICLEI Local Governments for Sustainability

The City Climate Planner program ensures urban professionals are equipped to support local climate action planning, including developing greenhouse gas (GHG) emission inventories; climate action planning (low emission development planning); and climate adaptation planning. These efforts are essential building blocks of local planning and policy development efforts of local governments in addressing climate change.

City Climate Planner

ICLEI Local Governments for Sustainability

CITY CLIMATE PLANNER

The Urban Greenhouse Gas Inventory Specialist credential is City Climate Planner program's first professional certification. It focuses on GHG emission inventories, recognized as a key building block in developing quality climate action plans.

Thank you for your attention.

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