



City of Emeryville Climate Action Plan 2.0

OPR Best Practice Pilot Program

CivicSpark Fellow: Hoi-Fei Mok

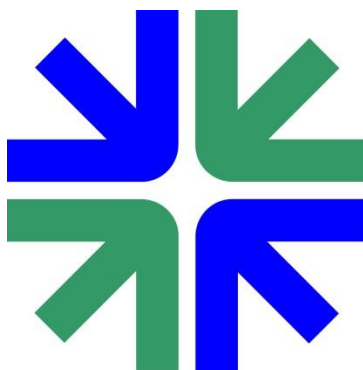
CivicSpark Sponsor: City of Emeryville



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The Governor’s Office of Planning and Research developed the Best Practice Pilot Program (BP3) to formalize the process of providing technical assistance to local and regional partners while capturing the design and implementation of best practices. The BP3 acts as a mechanism to institutionalize the production of case examples of piloted policies or programs recently recommended or required by the State. To learn more about the Best Practice Pilot Program, please visit the [BP3 web page](#). This report is one of a series of case studies supported by CivicSpark, a Governor’s Initiative AmeriCorps Program, administered by the Local Government Commission in partnership with the Governor’s Office of Planning and Research.

Thank you to the City of Emeryville for hosting the CivicSpark AmeriCorps Program and for continuing to push forward on ambitious climate action plans and initiatives.



Executive Summary

The CivicSpark Fellowship is the Governor's Initiative program dedicated to building capacity for local governments to address climate change. It is under the AmeriCorps program, a service program designed to improve local communities and addressing greatest needs. The 2015-16 service year is the 21st year of AmeriCorps, and the second year of the CivicSpark initiative. CivicSpark is managed by Local Government Commission (LGC) in partnership with the Office of Planning and Research (OPR).

The goal of Emeryville's project is to update their Climate Action Plan (CAP) to comply with the U.S. Compact of Mayors initiatives, incorporate the new state mitigation targets, and address rapidly-evolving technology. Emeryville's CivicSpark Fellow conducted two greenhouse gas (GHG) inventories and developed a Sustainability Action Plan and Climate Action Plan, among several other related projects, in their ten-month tenure with the City.

Project Description

The primary project focused on updating the City's 2008 Climate Action Plan (CAP). In 2015, California Governor Jerry Brown issued Executive Order B-30-15, which built upon Governor Arnold Schwarzenegger's Executive Order S-3-05, to set a statewide target of reducing GHG emissions to 40% below 1990 levels by 2030 and 80% below 1990 levels by 2050. In November 2015, Emeryville became a signatory to the [Compact of Mayors](#)¹, introducing additional standards for the City to meet in its CAP 2.0. This included a new greenhouse gas (GHG) inventory, a vision for the City's overall climate ambitions and objectives, a business-as-usual GHG emissions forecast, emissions reduction targets, a mitigation implementation plan, and a monitoring plan. In addition to mitigation, the Compact of Mayors also required an adaptation component that included climate hazards reporting, a climate change vulnerability assessment, and a climate action plan. Emeryville's CAP 2.0 aimed to combine both the mitigation and adaptation components into one plan.

Key stakeholders in the project consist of Emeryville City Council members, residents, businesses, and City employees. The City Sustainability Committee provided guidance and review as needed throughout the process. Collaboration with surrounding Bay Area cities and institutions such as StopWaste, University of California Berkeley, and [ICLEI](#)² was also integral to the CAP 2.0, particularly on regional issues like standardizing GHG inventory methodologies and addressing shared concerns such as sea level rise.

¹ The **Compact of Mayors** was launched by United Nations Secretary-General Ban Ki-moon and his Special Envoy for Cities and Climate Change with support from ICLEI – Local Governments for Sustainability, C40 Cities Climate Leadership Group, and the United Cities and Local Governments (UCLG). President Obama pushed for 100 US cities to sign on to the Compact of Mayors prior to the Paris climate talks in December 2015 and Emeryville was one of the cities that answered the call. This Compact establishes a common platform for local cities' collective actions on climate change and provides standardization for measuring emissions and climate risk as well as for reporting mitigation and adaptation efforts. In July 2016, the United Nations' Compact of Mayors joined with the European Union's Covenant of Mayors to form the Global Covenant of Mayors.

² **ICLEI – Local Governments for Sustainability** USA is the American branch of the global ICLEI organization supporting local governments on climate action planning and GHG reductions. They developed the widely-used ClearPath GHG inventory software.

Background

The City of Emeryville is a small city with a population of approximately 10,570, located in the East Bay across from San Francisco. Although its residential sector is small, the daytime population swells to over 30,000 due to the high number of businesses operating in the City. This dynamic results in city operations that are similar to larger cities while its small size allows for faster adoption and change of policies. This makes Emeryville an ideal place to develop and implement the CAP 2.0, which contains very ambitious targets and policies for both the residential and commercial sectors.

Emeryville's City Council had already pushed forward a number of environmental sustainability initiatives, such as the polystyrene ban and LED streetlight upgrades, before the CivicSpark Fellow started their term. This set the groundwork for the CAP 2.0 and motivated the City to seek out newer technology, policy, and best practices, particularly in the long term strategies for deep carbon reduction.

Goals and Process

Developing the CAP 2.0 was a multi-step process due to the number of components in the plan. The initial goal was to complete the community and municipal GHG inventories and report the results to the Compact of Mayors via the [CDP](#) and [Carbonn](#)³ platforms. This involved comparing data sources with past GHG inventories, ensuring consistency across the years, and updating past inventories if possible with new methodology or data sources. Concurrently, draft implementation plans with the proposed mitigation and adaptation initiatives were developed for the community to review. Feedback from public outreach workshops was incorporated into the CAP draft. The vulnerability assessment and adaptation responses to climate hazards and risk were coordinated in partnership with the City's update to the Local Hazards Mitigation Plan and with the assistance of an external consultant, [427 Climate Solutions](#), which was funded through [StopWaste](#), the Alameda County JPA on waste management and energy.

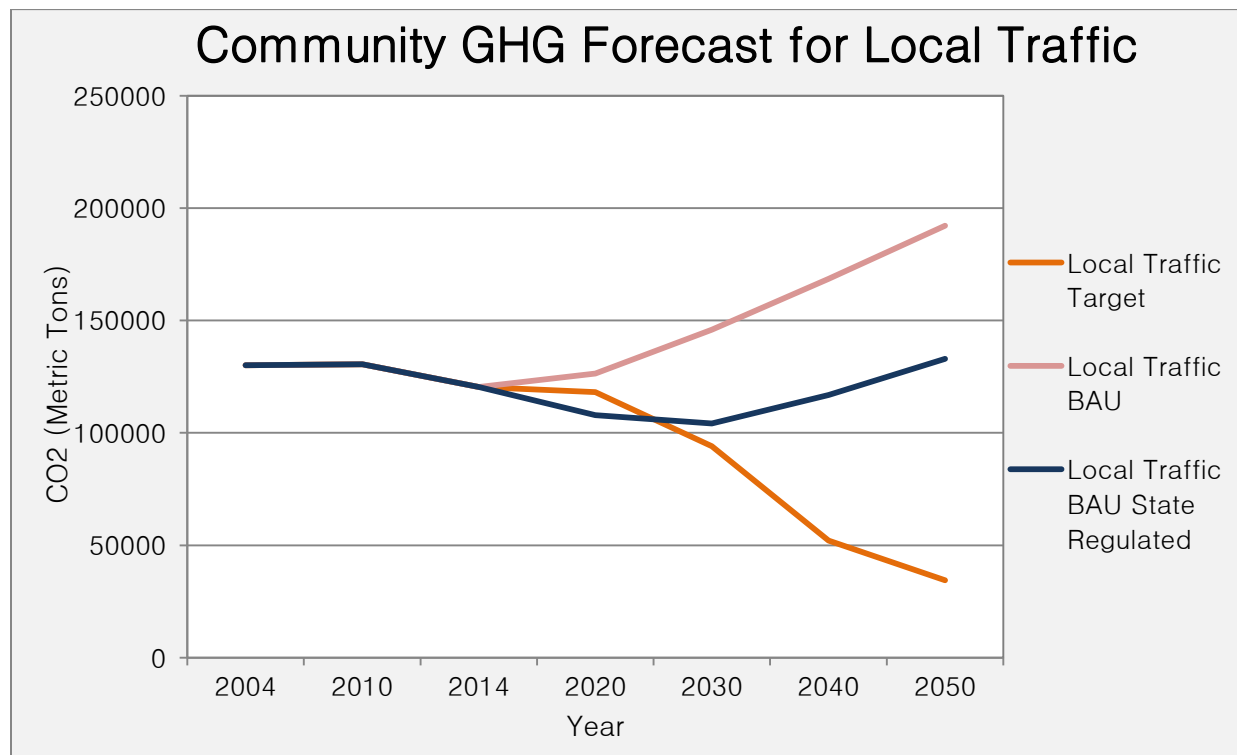
While the CAP 2.0 was in the development process, a secondary goal was to establish and implement as many of the programmatic initiatives proposed in the CAP 2.0 draft to take advantage of the additional staff capacity from the CivicSpark Fellow. These programs were chosen based on best practice recommendations from other cities and feasibility in Emeryville. Examples of major initiatives included the development and/or implementation of a voluntary energy audit program for commercial buildings, a mandatory building energy savings ordinance, and property assessed clean energy (PACE) financing.

Process and Tools Used

The primary tool used for the GHG inventorying and emissions forecasting was ICLEI's ClearPath software. ICLEI provided technical assistance and training on the ClearPath software. Data was obtained from PG&E, East Bay Municipal Utility District (EBMUD), the Metropolitan Transportation Commission (MTC),

³ **CDP** and **Carbonn Climate Registry** are two reporting platforms for the Compact of Mayors. CDP is an international organization that works with investors, companies, cities, governments, and policymakers on a multitude of climate change programs, including the reporting of GHG emissions. Carbonn is the world's leading reporting platform for the transparency, accountability, and credibility of climate action of local and subnational governments.

AC Transit, BART, Amtrak, and CalRecycle. A City employee commute survey was developed based on past employee commute surveys and provided useful current data. GHG calculation methodology came primarily from Emeryville’s 2010 GHG inventory by StopWaste, with a few updates to the transportation sector as advised by ICLEI and the Compact of Mayors compliance documents. Data cleaning was done manually and stored in Statewide Energy Efficiency Collaborative (SEEC)’s master data workbook. StopWaste held several training sessions with ICLEI for cities doing Compact of Mayors GHG inventorying and these sessions were very helpful in clarifying and standardizing the methodology across the region. All of the current GHG inventory methodology was thoroughly documented by the CivicSpark Fellow in a [resource file](#) that was shared amongst the Bay Area CivicSpark cohort as well as members of the TAG Energy Council at StopWaste. The Emeryville CivicSpark Fellow also acted as technical assistance to the Bay Area cohort on ClearPath questions.



Forecast for Emeryville for Local Traffic Scenario. This forecast from ClearPath shows GHG emissions out to 2050, including local traffic only emissions within transportation.

Tools from [REV Sustainability Circle](#)⁴ were also used to create the municipal component of the CAP 2.0. Emeryville participated in the East Bay REV Sustainability Circle from October 2015 to March 2016 to develop a 5-year [Sustainability Action Plan \(SAP\)](#) for city operations, which became the municipal initiatives within the community-wide CAP 2.0. REV had some calculators for estimating costs and savings

⁴ **REV Sustainability Circle** is a 6-month peer-learning program for commercial businesses and municipalities focusing on sustainability issues. Each circle is made up of 10 organizations that meets monthly through 6 full-day workshops covering strategic, tactical & behavioral approaches, with experts in lighting, HVAC, water, waste, metrics, branding and utility programs. Organizations leave with a customized 5-year Sustainability Action Plan.

(monetary, electricity, water, gas, and GHG emissions). These calculators were not suitable for calculating costs of program implementation, however, so they were not used for the community-wide initiatives.

PROJECTED SAVINGS



- 36 initiatives, saving over \$68k over 5 years
- Additional achievements:
 - Greater staff awareness of sustainability and climate change
 - More resources for residents to access (EV chargers, sustainability website, etc)

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Summary Savings from Emeryville's REV Sustainability Circle SAP Presentation

Best practices for the mitigation and adaptation initiatives were researched using a combination of local government CAPs across the nation, state resources, and resources from the Urban Sustainability Directors Network (USDN). Boston, Portland, and San Francisco in particular had ambitious CAPs with similar mitigation targets. Resources listed on the Cool California website for residents and businesses were incorporated into the CAP 2.0 resources section, the City's new sustainability website, and initiatives list. USDN and the Carbon Neutral Cities Alliance's framework for carbon neutral planning were very useful for the long term strategy section on deep carbon reduction. Other resources from USDN, such as the sustainable consumption toolkit, were also incorporated into the initiatives. Discussion from other Bay Area cities during Energy TAG Council meetings at StopWaste on energy projects was also helpful in elucidating pilot project opportunities and best practices.

What to report to the Covenant of Mayors?

The Covenant of Mayors offers two types of reporting: 1) **Action Reporting**, which focus only in reporting the status of implementation of the actions outlined in the SEAP and their impacts; and 2) **Full Reporting**, which besides reporting on the status of implementation of the actions and their impacts, includes at least one recent Monitoring Emission Inventory (MEI). The table below shows the parts of the Monitoring template that are required to be completed for each type of reporting.

	Action Reporting	Full Reporting
Part I – My Overall Strategy <i>Report any changes to the initial strategy as well as updated information on human and financial resources.</i>	✓	✓
Part II – My Emission Inventories <i>Provide final energy consumption and CO₂ emissions data by energy carrier and by sector for a recent monitoring year.</i>	✗	✓
Part III – My Sustainable Energy Action Plan <i>Report the implementation status of the key actions and update their impacts.</i>	✓	✓

Snapshot from the Covenant of Mayors Reference Guide for Monitoring Plans. This was the framework for the City of Emeryville’s CAP 2.0 monitoring plan

Community engagement for the CAP 2.0 was accomplished through public outreach workshops and an online survey. A total of 600 mailers were sent to all residential and business addresses to alert the public to the workshops and the online survey. Three public workshops were held at different times to accommodate a variety of schedules and childcare and food were provided. The online survey was available to capture thoughts and comments on the proposed initiatives for residents and businesses that could not attend in person.

In total, 17 people attended the public outreach workshops and 22 replied to the online survey, bringing the grand total for community engagement to 39 people. Overall, there was strong support for the proposed initiatives.

Outcomes

The community and municipal GHG inventories were completed at the end of April 2016 and uploaded to both the CDP and Carbonn online platforms to comply with the Compact of Mayors reporting. There was a 7.49% decrease in overall community emissions in comparison to baseline 2004 levels when excluding pass-thru traffic on state highways and a 7.29% decrease in municipal emissions in comparison to the 2010 municipal GHG inventory.

In its current form, the CAP 2.0 contains 17 mitigation goals, 5 adaptation goals, 99 mitigation initiatives, 38 adaptation initiatives, and 5 long-term strategies for carbon neutrality. The 19 initiatives and 4 mitigation goals relating to local government operations came from the Sustainability Action Plan, the

product of participation in a REV Sustainability Circle. Many of the energy-related initiatives were first fleshed out in [Emeryville's Strategic Energy Plan](#), developed with assistance from [East Bay Energy Watch](#) (EBEW) and their consultant, Newcomb Anderson McCormick. In addition to the production-based inventories, the CAP 2.0 also includes the [regional consumption-based inventory](#) as completed by UC Berkeley and the Bay Area Air Quality Management District.

427 Climate Solutions is currently working on applying the regional vulnerability assessment and adaptation strategies recommendations to Emeryville's local conditions. Their report will be incorporated into the final CAP 2.0 draft.

Of the planned initiatives, several are now in progress:

- Voluntary energy audit program for commercial buildings was established with ABM Building Solutions;
- [Climate resilient street tree list](#) was created;
- [Sustainability](#) and [emergency planning](#) resource websites were created for the City;
- Draft environmentally preferable purchasing policy is in progress at the City;
- Resolutions for the Property Assessment Clean Energy (PACE) financing programs are being finalized for City Council approval this fall;
- [Energy SunShares](#) program for direct solar install and electric vehicle (EV) rebates was approved for implementation this fall;
- Green Team established for City employees;
- Contracts for discounted green office supplies and EV chargers were obtained for [piggybacking from Alameda County](#); and
- Clipper Card check-out system was established for City employees going on work trips.

Project Difficulties

One difficulty is lack of funding. EBEW helped overcome funding barriers to Emeryville's participation in the CivicSpark program by providing funding for a majority of the cost. Developing the CAP 2.0 itself did not have any further funds beyond the CivicSpark Fellowship; however, implementing the plan will require significant investment and resources. Although there are some grants available for adaptation and energy efficiency, grant opportunities are often passed up due to lack of staff capacity dedicated to grant application and administration.

Another major difficulty is community engagement. The long term shift towards carbon neutrality and the intermediate steps will require significant behavior and lifestyle shifts from community members. Although the residents who participated in the CAP workshops were very enthusiastic, the low turnout overall indicates that the majority of the Emeryville community has not been engaged on the issue. Without strong community leaders, it will be difficult to get the entire community on board. There are some institutional barriers to community engagement, such as lack of active platforms to engage people

(no Chamber of Commerce, no environmental community groups), lack of staff capacity for active methods of outreach, difficulties in accessing committee/council meetings to be heard (during work hours, lack of childcare, lack of community stipend), and staff turnover (preventing long term relationships with community).

These problems are not unique to Emeryville. Other jurisdictions have brought up very similar issues at regional meetings and workshops.

Identified paths to success

Key tools included the Compact of Mayors compliance guides, which helped structure the CAP 2.0 and its components, and inventory methodology documents/training from ICLEI, particularly on transportation. These documents provided a standard structure for the CAP 2.0 and GHG inventories.

In addition to EBEW, StopWaste was another key entity, gathering cities together for the monthly Energy TAG Council meeting. Alameda County cities who participated in the Energy TAG Council were able to share their best practices, on-going projects, and staff reports or other documents, thereby increasing each other's capacity to work on similar projects. StopWaste was also the convening entity for deep dives into carbon neutrality or Compact of Mayors GHG inventorying methodology training sessions.

The CivicSpark Fellow cohort was another great peer resource. Many of the fellows were working on similar projects and by sharing ideas or resources through the peer listserv, they were able to answer each other's questions and build a strong network. The Bay Area cohort in particular worked very closely with each other and had a coordinating meeting after the monthly Energy TAG Council meeting at StopWaste to work through project difficulties.

Recommendations to State programs and partners

A standardized approach to climate action planning and GHG inventorying would be a great asset. This may be as simple as taking the existing Compact of Mayors/European Union's Covenant of Mayors compliance documents and adopting them on a state-wide basis. This would ensure that everyone is using the same terminology and structure when developing Climate Action Plans.

Similarly, requirements for GHG inventorying, the difference between BASIC and BASIC+, and standard methodology for calculating emissions would be extremely beneficial. ICLEI and the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) has already done some of the groundwork for this, but the difficulty in the GHG inventories is primarily in the data acquisition and cleaning. Specific methodology with examples of data sources (ie PG&E, MTC, EBMUD, etc) would be helpful, especially around transportation, where there are multiple sub-sectors and data sources (ie commercial vehicles, passenger vehicles, off-road vehicles, airports, waterborne vehicles, railroads, etc). Working with organizations like ICLEI to provide a methodology guide specific to California and tools available here would be very useful for cities conducting GHG inventories. This would also be an opportunity to

standardize practices across cities and regions, such as whether BART should be counted as Scope 2 or 3, how to backlog for new sector data, etc.

Continuing the CivicSpark Fellowship is key. This program not only increases the capacity of local governments to address climate issues, but also trains the next generation of climate leaders in public service. Coordinating the projects within the region where CivicSpark fellows are placed will allow for more collaboration between the fellows and better coordination of resources or best practices among the different cities. Formalizing the relationships or partnerships between CivicSpark and regional organizations such as East Bay Energy Watch or Energy TAG Council will be ideal. This past year, the CivicSpark fellows took initiative to spearhead relationships themselves, but starting off the fellowship program with these partnerships and structured time for coordinating in place will put next year's cohort in a much better position.

A compilation of best practices in sustainability or climate action planning would also be a great asset. This can be in the form of the OPR's Best Practices Pilot Program or other documented case studies from other states or countries.

Replicable elements

The CivicSpark Fellowship and standardized guidance on climate action planning and GHG inventorying from Compact of Mayors should be replicable in other jurisdictions across California and the US. These standardized guides for the CAP 2.0 components and GHG inventorying can be distributed widely once developed. Establishing regional JPAs such as StopWaste to serve as a coordinating entity may depend on the existing layout of organizations in the area, but is a process that can be replicated. REV Sustainability Circle operates across the state of California and participation can greatly benefit local city governments to kick start their climate action planning or sustainability work.