

City of Imperial Beach Climate Action Plan Report 1

March 3, 2021



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1.0 Introduction

The purpose of this document is to provide an update on the status of the Climate Action Plan (CAP) implementation that have occurred during the current reporting period. The CAP requires that the City monitor and report on CAP implementation activities on a biennial basis after an initial report in 2020. Due to the impacts related to the unprecedented pandemic, COVID-19, there was a delay in reporting on the CAP implementation. After the initial report in 2021, the CAP reporting will be on a biennial basis in conformance the timeline outlined in the adopted CAP.

2.0 Background for Climate Action Plan

The Climate Action Plan (CAP) was approved and adopted by Resolution 2019-8054 on July 17, 2019. The CAP is a strategic framework for measuring, planning, and reducing greenhouse gas (GHG) emissions and includes an inventory of existing emissions, sets reduction goals or targets, and identifies analyzed and prioritized mitigation measures to achieve the reduction targets. The purpose of the CAP is to describe how greenhouse gas (GHG) emissions generated in municipal and community-wide activities in the areas of building and community energy use, transportation and land use, waste reduction and diversion, water conservation, and green infrastructure enhancement within the City of Imperial Beach will be reduced in accordance with statewide targets. The statewide targets used for the CAP are derived from the Governor's Executive Order S-3-05 (EO S-3-05) and the Global Warming Solutions Act of 2006 (AB 32). The CAP is not intended currently to be used as a California Environmental Quality Act (CEQA) mitigation document per CEQA Guidelines § 15183.5.

Implementation and monitoring of the CAP is required by the Final Draft of the Updated 2019 General Plan/Local Coastal Program Conservation and Ecotourism Element Policy 4.1.1-P.CE-4, which states, "Adopt and implement a Climate Action Plan (CAP) that is aligned with state requirements for greenhouse gas emission reductions, while achieving local co-benefits." Also, the Conservation and Ecotourism Element Policy 4.1.2-P.CE-5 states: " Monitor implementation of the Climate Action Plan (CAP) to ensure its effectiveness over time, and adjust measures as needed to achieve mandated targets." Implementation of the CAP strategies is a reflection of the City's commitment to climate action planning as a

process through which it plans for and invests in progressively more aggressive GHG reductions and a more sustainable, adaptable, and resilient community.

Chapter 1 of the CAP contains information about the baseline emissions and reduction strategies. The City's CAP utilizes the 2012 baseline inventory. A GHG inventory identifies the major sources and overall magnitude of GHG emissions in the city using standard modeling methods and protocols. Typical inputs include: electricity consumed, natural gas consumed, vehicles miles traveled, solid waste disposed, wastewater treated and potable and recycled water used. The Chapter shows the baseline emissions and the target emission levels for Imperial Beach.

Chapter 2 of the CAP contains information on the City of Imperial Beach's Climate Action Plan Goals. The areas of focus are transportation, energy and energy efficiency, waste, and carbon sequestration. Additionally, the chapter outlines and describes the purpose of the City's CAP as well as a summary of the legislation and executive actions that were adopted for California's climate protection efforts.

Chapter 3 of the CAP contains detailed information regarding GHG emissions and the methodology used in the emission target selection. The chapter also includes the business as usual emission projections, targets, and information on the local emissions gap.

Chapter 4 of the CAP summarizes the emissions reduction measures for the following categories: on-road transportation, energy emissions, waste emissions, and carbon sequestration.

Chapter 5 of the CAP provides the timeline for CAP monitoring and reporting and details on the projected updates.

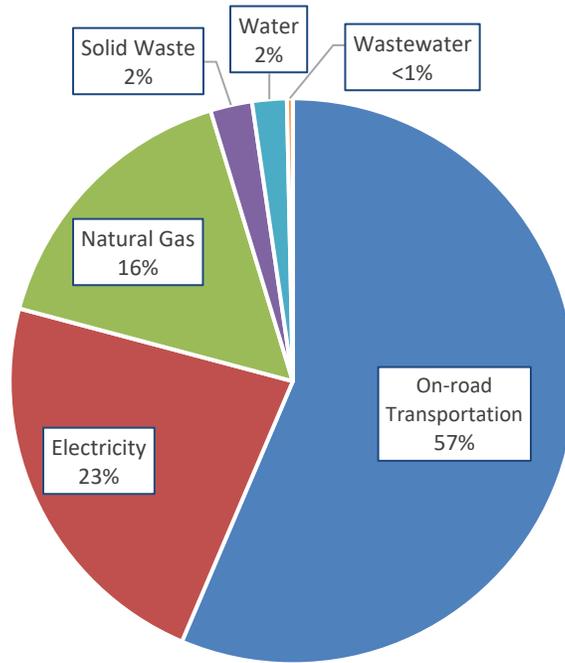
The CAP was developed as a part of the overall Resilient Imperial Beach General Plan/Local Coastal Program Update. Technical support was provided by SANDAG through the services of EPIC of the University of San Diego Law School. EPIC continues to work with SANDAG on SANDAG's Regional Climate Planning Framework (ReCAP), which provides regionally consistent approaches, methodologies, and data sources. This data is made available on a biennial basis, which is consistent with the City's reporting schedule. In 2022, the City will include the 2020 GHG emission information in the CAP Report 2.

The 2012 inventory consists of 96,400 Metric Tons (MT) of carbon dioxide equivalent (CO₂e). Figure 1 below shows Imperial Beach 2012 GHG emissions inventory by category and Table 1 shows the emissions projection, reduction targets, and emissions reduction needed to meet emissions reduction targets at the State level. Of the total emissions in 2012, 98 percent are attributed to on-road transportation, electricity, natural gas, and solid waste. The emissions profile is typical of other cities, and therefore, similar to most other CAPs, the City of Imperial Beach's CAP focuses primarily on the GHG emission reduction strategies in these sectors.

To be consistent with AB 32 and SB 32 emissions reduction targets at the State level, the target emission levels for Imperial Beach are set at 4% below the 2012 emissions level by 2020 and 42% below the 2012 emissions level by 2030 (Table 1). These targets are consistent with State targets under AB 32 and SB 32. Emissions reductions that would be needed to meet the long-term goals set in EO S-3-05 are also included; however, the strategies and measures are geared towards achieving reductions through the CAP's 2030 horizon year (Table 2). The 2020 target will be met without the need for any local actions. As a result, the measures and strategies are only listed with their estimated contribution towards achieving the 2030 CAP target.

Of the 26,300 MT CO₂e reductions needed to meet the CAP's 2030 target, 6,454 MT CO₂e are estimated to come from local efforts included in the CAP strategies and measures. This amounts to approximately 25% of total reductions while the other 75%, 19,992 MT CO₂e, are estimated to result from federal and state actions.

Figure 1 Imperial Beach 2012 GHG Emissions Inventory by Category



Percentage may not add to totals due to rounding.
Energy Policy Initiatives Center, 2018

Table 1 Emissions Projection, Reduction Targets, and Emissions Reduction Needed

Year	Business-as-usual Projection (MT CO ₂ e)	Target Emission Level (% below baseline)	Target Emission Levels (MT CO ₂ e)	Emissions Reduction Needed to Meet Target (MT CO ₂ e)
2012	96,400	-	-	-
2020	81,100	-4%	92,700	-11,500
2030	82,200	-42%	55,900	26,300

*Emissions values are rounded.

*Energy Policy Initiatives Center, 2018

Table 2 Measures and Quantified Reductions to meet CAP 2030 GHG Emission Reduction Target

Emissions Category	Reduction Strategies and Measures		2030	
			MT CO ₂ e	% of Local Reductions
On-Road Transportation	Strategy: Clean and Efficient Transportation			
	T.1	Increase Citywide Electric Vehicle (EV) Charging Stations	751	11%
	T.2	Clean Municipal Fleet	48	1%
	Strategy: Reduce Vehicle Miles Traveled (VMT)			
	T.3	Increase Mass Transit Ridership	687	10%
	T.4	Improve Pedestrian and Bicycle Facilities	342	5%
	T.5	Reduce Municipal Employee VMT	13	<1%
Energy	Strategy: Increase Renewable Electricity			
	E.1	Increase Grid-Supply Renewables	1,204	17%
	E.2	Increase Commercial Solar Photovoltaic (PV)	59	1%
Waste	Strategy: Zero Waste			
	W.1	Divert Waste from Landfill	3,318	51%
Carbon Sequestration	Strategy: Carbon Sequestration			
	S.1	Tree Planting	31	<1%
Total GHG Reductions Needed to Reach 2030 Target		6,454 MT CO₂e		
Total Potential GHG Reductions from Local Measures		6,454 MT CO₂e		

*Percentages are rounded and may not sum.



3.0 Emissions Reduction Measures Implementation

The IB CAP adopted targets to reduce emissions 4% below 2012 levels by 2020 and 42% below 2012 levels by 2030 (55,900 MTCO₂e). As shown in Table 2, each reduction measure includes the estimated GHG reductions, co-benefits, general description and background information, and identified implementation actions. The measures represent actions and issues with direct City influence and are intended to achieve emissions reductions within the community. The Consolidated Measure Implementation Matrix table for the CAP shows the action, description, responsibility and timeline for each of the CAP implementation measures. The matrix has been included as Appendix A.

The strategies and measures are organized under four categories:

- 📌 On-Road Transportation
- 📌 Energy and Energy Efficiency
- 📌 Waste
- 📌 Carbon Sequestration

Transportation

The 2012 inventory identified that 57 percent of the total emissions are generated by on-road transportation. Reducing greenhouse gas emissions from transportation requires a broad range of strategies at a regional, state, and federal level with policies and plans that focus on areas including increasing vehicle efficiency, lowering the carbon content of fuels, and reducing vehicle miles of travel. The areas that the City addressed, considering its limited capacity, were to increase the number of citywide electric vehicle charging stations, creating a clean municipal fleet, increase mass transit ridership, improve the Pedestrian and Bicycle Facilities, and reduce employee VMT (Measures T.1 – T.5).

During the reporting period, staff made considerable progress in implementing the transportation related measures. On a policy level, the City adopted a revised Mobility Element which includes a Complete Streets policy. “Complete Streets” is a term to describe a system that meets the needs of all users of the streets, which traditionally is defined to include

pedestrians, bicyclists, users of public transit, motorists, children, seniors, persons with disabilities, movers of commercial goods and emergency vehicles. Implementation of the revised Mobility Element allows for the implementation of GHG emissions reduction measures such as the completed construction of Imperial Beach Boulevard (IB Blvd.) Enhancement project, which was completed during CAP reporting cycle 1. The IB Blvd. enhancement project incorporated green infrastructure, which provided the two-fold benefit of both mitigating the production of GHG emissions and providing extra resilience against the effects of global warming in the City. The project scope included the reconstruction of the bulk of Imperial Beach Boulevard between Seacoast Drive and 14th Street, including the narrowing and reallocation of vehicle lanes to promote traffic calming and installation of Class II Bike Lanes, controlled crosswalks with flashing beacons, ADA compliant pedestrian ramps, additional amenities to bus stops, low impact development planters, wider sidewalks, improved aesthetic features along the Tijuana Estuary, and a unified design theme to enhance the user experience.



Other projects that are in progress or have been completed to improve pedestrian and bicycle facilities include the construction of the bike path adjacent to the Bayside Landing/Bernardo Shores Development, Border to Bayshore Bikeway project, and the SR-75 bike path. Additionally, to increase the City's clean municipal fleet and reduce employee VMT, the City purchased five electric bicycles. Furthermore, to increase mass transit ridership, the City collaborated with MTS to install new Rapid Transit stops throughout the City. Regarding electric vehicle charging stations (EVCS), the City is collaborating with SDG&E to install four (4) EVCS stations in the Sports Park parking area and will continue to work with regional partners including the South Bay Energy Action Collaborative to identify funding opportunities that support additional EVCS

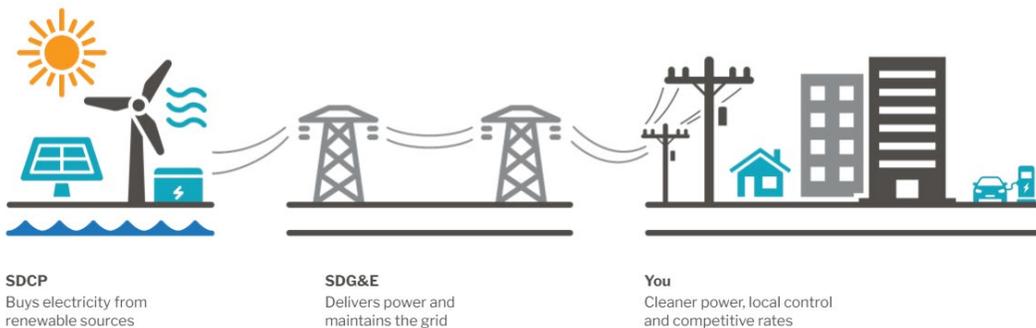
installation. The SANDAG Regional Electric Vehicle Charging Program provides grants and regional support for installation of new EVCS.



Energy and Energy Efficiency

The Energy category, consisting of electricity and natural gas emissions resulting from use in buildings, accounts for approximately 39% of the 2012 baseline inventory. As such, the City placed a heavy emphasis on clean and renewable energy (Policies T.1 and T.2). Renewable energy provides both environmental and economic benefits through the generation of energy that produces no greenhouse gas emissions from fossil fuels, reducing air pollution, and reduces the dependence on imported fuels.

In FY 2020, which is during the reporting period, the City in partnership with the cities of Chula Vista, Encinitas, La Mesa, and San Diego established the San Diego Community Power as a non-profit energy provider to establish a local community choice aggregation (CCA) program. San Diego Community Power (SDCP) will be delivering power to its first customers in 2021. SDCP provides more local control over Imperial Beach’s energy landscape.



Waste

Reduction of solid waste and promoting the recycling of materials is a powerful way to save energy and reduce GHG emissions. The City's current franchise waste hauler is EDCO. The City, EDCO, and local community must be active participants to achieve waste reductions, especially since the included waste reduction measure is anticipated to account for over half of all CAP measure emission reductions to meet the 2030 target. Measure W.1 to divert waste from the landfill is intended to be met through the diversion of commercial organics. On February 19, 2020 the City adopted an ordinance to amend Chapter 8.36 of the Imperial Beach Municipal Code to require mandatory organics recycling. Staff is collaborating with EDCO to develop and implement a public outreach campaign to increase awareness of existing waste management services and drive behavioral change.



Carbon Sequestration

Carbon sequestration is also an important strategy included in the CAP. Compared to the regional average, Imperial Beach has fewer trees and a lower proportion of the City covered by tree canopies. Trees are effective at sequestering GHG emissions and provide a range of additional benefits that include reducing temperature and energy use and improving air and water quality, aesthetics, and general quality of life. Measure S.1 Tree Planting is an ongoing effort. During the reporting period, the City planted a total of 359 trees in FY 2020. These include 310 trees in partnership with the San Diego Urban Corps, 39 trees as part of the IB Blvd Enhancement Project, and 10 trees through regular operation and maintenance activities. Additionally, staff continues to emphasize developers to incorporate trees in development projects.



4.0 GHG Emissions Inventory

A key component of CAP implementation is the monitoring of actual GHG emissions. To draft the Imperial Beach CAP, technical support was provided by SANDAG through the services of EPIC of the University of San Diego Law School. EPIC provided the baseline emissions for the City of Imperial Beach which were the 2012 GHG emissions. EPIC continues to work with SANDAG on SANDAG's Regional Climate Planning Framework (ReCAP), which provides regionally consistent approaches, methodologies, and data sources. One of the services offered by SANDAG includes conducting GHG inventories for local jurisdictions. This data is updated on a biennial basis, which is consistent with the City's reporting schedule. As can be seen from the ReCAP Snapshot 2016 (Attachment 3) and ReCAP Snapshot 2018 (Attachment 4), the City's efforts over time to reduce GHG emissions have had a direct impact in reducing the City's GHG emissions and that the additional work and commitment that the City has made with the CAP adoption and implementation has furthered these reductions. The 2012 inventory consists of 96, MT CO₂e, the 2016 inventory consists of 81 MTCO₂e, and the 2018 inventory consists of 79 MT CO₂e. In 2022, the City will include the 2020 GHG emission information in the CAP Report 2.

5.0 Summary

From CAP implementation on July 17, 2019, the City has made considerable progress in reducing GHG emissions in Imperial Beach exceeding the forecasted 2020 GHG reductions shown in the CAP. During the next reporting period, staff will continue to address and implement the policies to reduce GHG emissions and coordinate and collaborate with regional partners, such as SANDAG, other local jurisdictions, San Diego Regional Climate Collaborative and SDG&E.

Appendix A

Consolidated Measure Implementation Matrix

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Consolidated Measure Implementation Matrix					
Emissions Category	Reduction Strategies and Measures	Action	Description	Responsibility	Timeline
On-Road Transportation	Strategy: Clean and Efficient Transportation				
	T.1 Increase Citywide EVCSs	1	Encourage and incentivize EVCSs at new and redeveloped multifamily and commercial developments through the development review process	City	Near-term
		2	Identify a list of priority public facility installation sites on City sites and in collaboration with relevant partner agencies	City	Near-term
		3	Identify and pursue funding and financing resources to support EVCS installation	City	Near- and Mid-term
	T.2 Clean Municipal Fleet	1	Work with CSE's EV Expert to develop a municipal fleet assessment and conversion plan	City	Medium-term
		2	Utilize fleet assessment and conversion plan to decide when to replace vehicles	City	Medium-term
		3	Work with other agencies and jurisdictions to identify potential joint EV procurement options	City	Near-term
	Strategy: Reduce VMT				
	T.3 Increase Mass Transit Ridership	1	Coordinate with San Diego MTS to identify transit connectivity opportunities that improve transit access and mobility	City	Near-term
		2	Work with San Diego MTS to increase awareness of the Rapid 925 and existing bus routes as a means to increase ridership	City	Near-term
SE.1		Collaborate with SANDAG to ensure that the RTP includes transit investments that improve transit service and connectivity	City	Near-term	

Consolidated Measure Implementation Matrix					
Emissions Category	Reduction Strategies and Measures	Action	Description	Responsibility	Timeline
	T.4 Improve Bicycle and Pedestrian Facilities	1	Complete the suite of planned bicycle and pedestrian projects by 2030	City	Medium-term
		2	Evaluate the feasibility of Class IV bicycle lanes in all project review procedures	City	Near-term
		3	Work to expand the number of bike parking facilities at commercial establishments throughout the City	City	Medium-term
		4	Work with scooter and bikeshare and other emerging companies to analyze data and better understand active transportation patterns and needs throughout the City	City	Medium-term
	T.5	1	Purchase 10 electric bicycles	City	Near-term
		2	Track the number of trips and VMT avoided through usage of the bicycles	City	Medium-term
Energy	Strategy: Increase Renewable Electricity				
	E.1 Increase Grid-Supply of Renewable and Zero Carbon Electricity	1	Explore the potential to join a regional CCE through a partnership with other jurisdictions	City	Near-term
		2	Work with identified partnership jurisdictions to conduct a feasibility study and other related research and administrative efforts necessary to establish a CCE	City	Medium-term
		3	Evaluate the need for additional resources to increase to 100% grid-supplied renewable power by 2030	City	Medium-term

Consolidated Measure Implementation Matrix					
Emissions Category	Reduction Strategies and Measures	Action	Description	Responsibility	Timeline
		SE.1	Work with SDG&E to publicize energy efficiency rebates and subsidies to increase the efficiency of Imperial Beach's existing building stock	City	Near-term
		1	Establish requirements or incentives through the development review and approval process to spur installation of commercial solar PV	City	Near-term
		2	Develop a directory of solar PV funding sources, rebates, and incentives, and leverage existing efforts and materials from the CSE, California Solar Initiative, SDG&E, and other organizations.	City	Near-term
		3	Review/revise applicable building, zoning, and other codes/ordinances to encourage the development of solar ready commercial developments.	City	Medium-term
		SE.1	Identify opportunities to install solar PV on public facilities such as municipal buildings, schools, libraries, and parking lots.	City	Medium-term
Waste	Strategy: Reduce Solid Waste				
	W.1 Divert Waste from Landfill	1	Adopt a Zero Waste by 2050 policy	City	Near-term
		2	Work with the City's waste service company and stakeholders to develop a public outreach campaign to increase awareness of existing waste management services and drive behavioral change	City	Medium-term
Carbon Sequestration	Strategy: Carbon Sequestration				
	S.1 Tree Planting	1	Plant 300 trees within City ROW by 2030	City	Medium-term

Consolidated Measure Implementation Matrix					
Emissions Category	Reduction Strategies and Measures	Action	Description	Responsibility	Timeline
		2	Make changes to the City code to require tree planting in new and redeveloped residential and commercial developments	City	Near-term
		SE.1	Identify opportunities to enhance or conserve habitat that would sequester carbon in collaboration with relevant state and federal agencies	City	Medium-term
		SE.2	Identify and pursue funding to develop an Urban Forest Management Plan	City	Medium-term

SE indicates that the action is a Supporting Effort