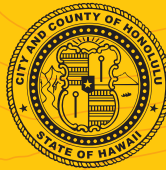


One Climate One O‘ahu

Charting a path to a clean energy future for our **community** | ‘āina | **economy**

CITY & COUNTY OF HONOLULU

CLIMATE ACTION PLAN 2020-2025



UHERO
THE ECONOMIC RESEARCH ORGANIZATION
AT THE UNIVERSITY OF HAWAII



ISR
UNIVERSITY of HAWAII at MANOA





The City and County of Honolulu (“Honolulu”), comprising the island of O‘ahu, is an island of natural beauty and contrasts. From its lush valleys nourished by moisture rich trade winds to its dryer regions with scant rain, the residents of Honolulu understand the need to prepare

our diverse communities for a changing environment and eliminate carbon pollution through decarbonization.

The commitment of Honolulu’s residents is already reflected in the nation’s highest per capita rooftop solar penetration and one of the nation’s highest rates of electric vehicle (EV) ownership. But Hawaii’s commitment to 100% clean energy by 2045 requires more

and Honolulu is committed to bold, transformative action in climate adaptation and carbon reduction.

The City and County of Honolulu’s first-ever Climate Action Plan is a roadmap for collective action with practical, common-sense measures over the next five years aimed at Honolulu’s biggest emitting sectors—our transportation networks, building operations, and waste systems.

On the path to a sustainable future, my commitment as Mayor is to leave Honolulu a better place for future generations to live. I invite you to join our cause!

My thanks to the thousands of community voices, the working group members and University of Hawai‘i team, City Council members, and our City agencies for the vision and commitment.

Rick Blangiardi
Mayor
City and County of Honolulu



Cities and island communities are on the frontlines of climate change. Even while COVID-19 response and recovery dominated 2020 and carries forward into 2021, we have wrestled with sea level rise and erosion impacts to coastal roads and lifeguard towers, a hurricane

near-miss, a period of drought, and also heavy rainfall and flooding. To build long-lasting resiliency and greater self-sufficiency for O‘ahu, we must address multiple challenges such as COVID-19 recovery, climate change, and affordability at the same time.

This plan outlines 9 distinct strategies and 47 actions that are measurable and meaningful, with guideposts we can follow to show progress in eliminating greenhouse gas emissions—the root cause of global heating and climate change—from efficiencies and savings across City affordable housing and rental units, to investing in clean and safe transportation options, to reducing waste and turning waste we do have into resources.

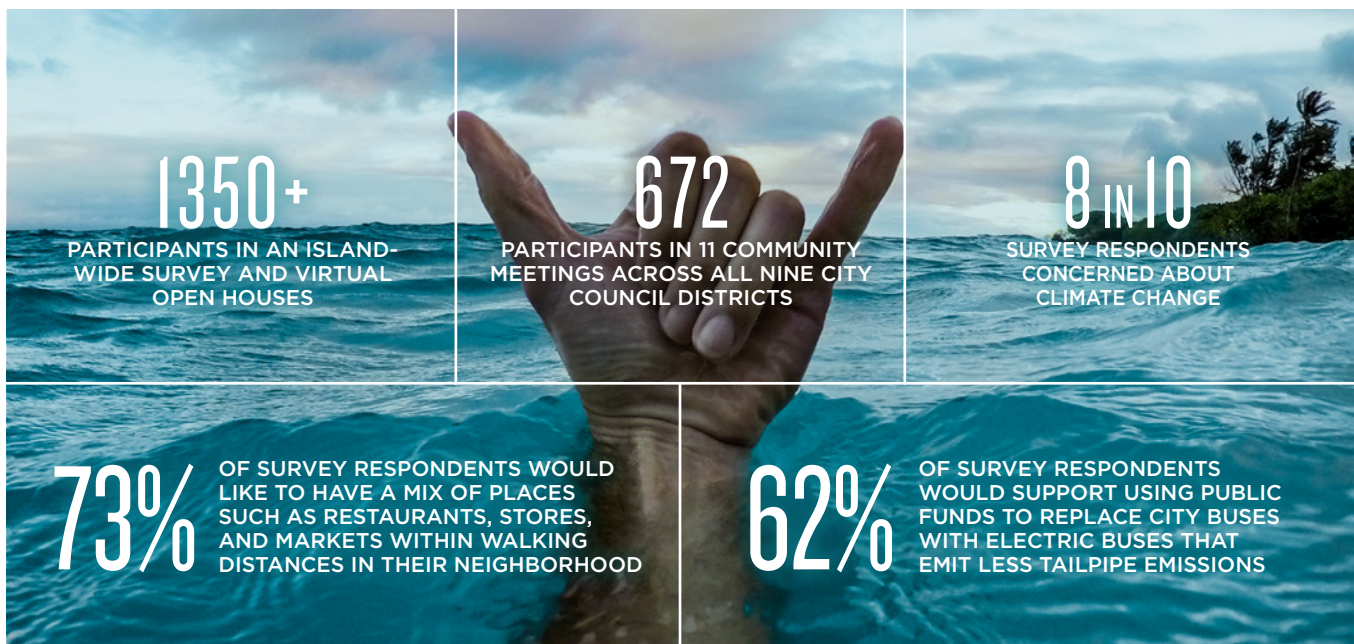
We are committed to centering equity and improving economic justice in our focus for implementing this plan and have outlined strategies and actions to keep the City accountable to these practices and goals. Our thanks to the many voices that helped shape this plan. We stand alongside you, committed to climate action.

Matthew Gonser
Chief Resilience Officer & Executive Director
Office of Climate Change, Sustainability and Resiliency

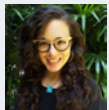
Answering the Call

“There is hereby established a climate action policy for the city to transition to 100 percent renewable energy within the city and achieve net-negative carbon emissions for emissions related to activities within the city no later than 2045, consistent with state law.” - Ordinance 20-47

This Climate Action Plan (CAP) is built on a foundation of community voices. More than **2,000** perspectives were shared in workshops, surveys, focus groups, and virtual open houses with the community and City departments, building on robust technical analysis from sector experts and the University of Hawai‘i.



Over **13,000 residents and 4,000 buildings** on O‘ahu are facing flooding due to sea-level rise if we do not act quickly to abate greenhouse gas emissions and adapt to protect our communities. The longer we wait to act, the more costly the damage will be.



Victoria Keener
Climate Change Commission Chair



Protecting our island from climate change is our kuleana. The Honolulu City Council passed ordinance 20-47 to ensure that O‘ahu will remain part of the global effort to address global warming and decarbonize our economy, and this plan points the way forward.



Tommy Waters
City Council Chair and Presiding Officer

CAP GOAL: 45% reduction in targeted GHG emissions by 2025 relative to 2015

This CAP outlines nine climate strategies and 47 actions for O’ahu to pursue in the next five years to reduce our island-wide emissions in line with long-term goals. Fully implemented, along with other state and federal policies, this plan will reduce emissions from the transportation, electricity, and waste sectors by an estimated 45% from 2015 levels by 2025. Further, by continuing implementation beyond 2025, this CAP puts the City on a

pathway to reduce target sector emissions by 60% from 2015 levels by 2035, and 80% by 2045.

While this plan is necessary, meeting our City and State long-term goal of net-negative carbon emissions by 2045 will require additional actions at the local, state, and federal levels, as well as consideration of carbon offsets. Per Ordinance 20-47, this plan will be updated every five years to assess progress and take new technologies, policies, and approaches into account.

O’ahu Carbon Emissions

This CAP focuses on reducing emissions from the biggest sources of greenhouse gas (GHG) emissions over which the City has most influence, including the electricity, ground transportation, and waste sectors. Collectively, these three sectors account for 57% of O’ahu’s current GHG emissions.



Electricity generation used to power homes and businesses contributes

35%

of total emissions



Fuel burned to power our **ground transportation** — cars, trucks, buses, and motorcycles — emits approximately

ONE FIFTH

of all emissions island-wide



Solid **waste** and treatment of wastewater contributes

3%

of emissions



O’ahu’s **per capita GHG** emissions are more than

TWICE THE GLOBAL AVERAGE



Ground transportation — cars, trucks, motorcycles, buses, and other heavy-duty vehicles — account for 19% of O’ahu’s greenhouse gas emissions. This trend has remained flat over the last decade, so more must be done to bend the curve.

Enabling safer, more affordable, and convenient transportation options for residents to take transit, bike, walk, or carpool can both reduce emissions and improve overall quality of life on

O’ahu. Focusing growth and greater housing affordability in areas near transit can help reduce the need for car trips and protect natural lands and open space. Additionally, the City has already committed to fully transforming its own vehicle fleet to electric or renewable technology by 2035, and is supporting the transition to electric vehicles island-wide. The following four high-impact strategies will further reduce emissions from the ground transportation sector.

Strategy 1: Encourage Density and Mixed Land Use in Strategic Areas	
Action 1.1	Continue to adopt policies that support greater housing affordability located near transit and in areas in proximity to job centers and key destinations.
Action 1.2	Continue revising the City’s land use and zoning regulations to allow for mixed-use development across O’ahu to support “complete communities.”
Action 1.3	Work with private sector to provide connectivity and streetscape infrastructure in new developments to support complete streets principles.
Strategy 2: Enable and Provide Multiple Modes of Green Transportation	
Action 2.1	Implement the O’ahu Bike Plan and continue to build out protected bikeways for all ages and abilities with safe connections between existing bike lanes.
Action 2.2	Develop a City-focused Transportation Demand Management (TDM) program, and consider updating the telework policy.
Action 2.3	Complete the O’ahu Pedestrian Plan and implement high priority pedestrian projects.
Action 2.4	Plant trees as part of roadway rehabilitation projects to provide shade for pedestrian, bicycle, and transit infrastructure and promote comfort for frequent trips.
Action 2.5	Repurpose general travel and parking lanes for multimodal and active transportation use.
Action 2.6	Increase non-vehicular mode share in new multi-family housing and commercial developments through TDM programs.
Action 2.7	Identify candidate projects and develop dedicated bus lanes along high-occupancy transit corridors.
Action 2.8	Launch integrated transit fare card (Holo) to include a fare-capping program for relevant daily, monthly, and annual rates.
Action 2.9	Hire a Mobility Manager to leverage opportunities to increase micromobility services.
Action 2.10	Create a universal trip planning and fare app to improve the connectivity of multimodal transportation options.
Action 2.11	Seek innovative business solutions to deliver vehicle miles traveled (VMT) reduction services.
Strategy 3: Encourage Mode Shift through Parking Efficiency	
Action 3.1	Allow for flexibility in the provision of parking by eliminating current minimum off-street requirements.
Action 3.2	Encourage unbundling the sale or rent of multi-dwelling housing units from parking in transit-oriented developments (TOD) and other suitable neighborhoods.
Action 3.3	Develop curb management systems within TOD and other high-demand areas.
Action 3.4	Efficiently manage and price public parking at City-owned lots and parking spaces with high transportation alternatives and implement dynamic metering rates.
Action 3.5	Repurpose underutilized public parking in preference to multimodal transportation infrastructure, urban greenery, and public-serving spaces.
Strategy 4: Electrify the City Fleet and Support High Efficiency Vehicles	
Action 4.1	Develop and adopt an electric bus purchasing policy for the City’s bus fleet to reach 100% renewable powered City fleet goal by 2035.
Action 4.2	Develop a plan and implement City passenger vehicle fleet transition to achieve 100% clean fleet goal by 2035.
Action 4.3	Develop, for EV buses and other City-owned EVs, charging protocols such that it facilitates integration of intermittent renewable energy.
Action 4.4	Expand EV charging infrastructure for the City EV fleet by tripling public charging capacity on City facilities; enable electricity costs recovery.
Action 4.5	Provide private car sharing with high fuel efficiency vehicles priority access parking to enable point-to-point service in high usage areas.

Powering O’ahu’s homes, businesses, industries, and increasingly electric vehicles creates approximately 35% of total island carbon emissions. Approximately 80% of O’ahu’s electricity generation currently comes from fossil fuels.

Hawai’i has the nation’s first clean energy law mandating that 100% of electricity net sales be from renewable sources of energy no later than 2045. By working with the State, utility, private sector, and community, the City can help drive continued investment and innovation in decarbonizing the electricity sector.

This CAP outlines several strategies to reduce building energy use, expand energy efficiency and renewable energy projects on City facilities, ensure more expansive access for residents to rooftop solar, and facilitate permitting of renewable energy installations. By focusing on energy efficiency first, the City can help residents save money and reduce the overall need to build new electrical infrastructure.

Strategy 5: Reduce Energy Demand by Increasing Energy Efficiency	
Action 5.1	Put in place a system to regularly update relevant building code ordinances, adopt state codes as required, and consider adopting further local standards to reduce greenhouse gas emissions over time.
Action 5.2	Develop a "lead by example" municipal energy and water benchmarking program for covered City facilities along with data transparency, reporting, and building performance standards. Develop internal and publicly-available dashboard with energy and water data reporting protocols.
Action 5.3	Develop building energy benchmarking program, building performance standards, and transparent reporting mechanisms for large covered commercial and multi-family buildings.
Action 5.4	Deploy a Healthy and Resilient Buildings program in response to COVID-19.
Strategy 6: Maximize Energy Efficiency and Renewable Energy throughout City Operations and Assets	
Action 6.1	Retrofit City buildings, facilities, and operations to be more energy efficient.
Action 6.2	Leverage City rooftops, parking lots, and other previously developed lands to increase on-site and City-owned renewable energy by 200%.
Action 6.3	Continue to pilot and implement flexible energy demand response programs for City operations.
Action 6.4	Facilitate and invest in energy efficiency for City-owned housing.
Strategy 7: Expand Renewable Energy Planning and Expedite Permitting	
Action 7.1	Proactively engage with state partners in land use and community planning for large-scale renewable energy projects and assess City lands and facilities for additional utility-scale energy projects.
Action 7.2	Streamline permitting for solar PV (including distributed battery technologies) on commercial, multifamily, and townhome rooftops through use of online platforms.
Action 7.3	Continue to advocate before the PUC for fair and efficient regulation around the renewable energy transition.
Action 7.4	Launch a Solarize O’ahu pilot to increase residential solar access for low- to moderate-income households.



Emissions from waste and wastewater disposal and management are 3% and 0.2% of O’ahu’s greenhouse gas emissions, respectively. These totals may appear small due to the diversion of waste to H-POWER for electricity generation, but in reality, waste has a significant carbon footprint. Landfills create methane emissions that end up being flared, and plastic-based goods are made using fossil fuels. As such, eliminating waste can reduce emissions locally while also having notable impact on emissions elsewhere.

As the sole manager of O’ahu’s waste and wastewater disposal, the City has an opportunity to reduce waste at the source and utilize byproducts as resources themselves. The actions in this plan, therefore, focus on both waste prevention and maximizing the efficiency of the waste we cannot avoid.

Strategy 8: Promote Waste Prevention	
Action 8.1	Continue to eliminate single-use plastics and expand the use of multiple-use foodware and serveware in food distribution and sale.
Action 8.2	Establish a sustainable (Low GHG) procurement policy for the City.
Action 8.3	Strengthen infrastructure and partnerships for edible food recovery.
Action 8.4	Advance development of a volume-based residential refuse pickup program that appropriately prices refuse pickup services for customers.
Action 8.5	Expand the location of public drinking water fountains and retrofit existing public drinking fountains to include devices capable of refilling reusable water flasks, cups, and containers.
Action 8.6	Establish a building deconstruction reuse and recycling program; enable reuse, recycling, and repair systems.
Action 8.7	Develop end-of-life requirements for solar PV and other relevant renewable energy technologies, including battery storage.
Strategy 9: Maximize Waste Resource Efficiency	
Action 9.1	Implement methane collection systems at landfill and wastewater treatment facilities, where feasible, that would allow the City or others to benefit from methane capture and reuse.
Action 9.2	Explore the feasibility of adding an anaerobic digester capacity or other resource recovery project to the City's solid waste and wastewater processing and treatment infrastructure.
Action 9.3	Based on GHG lifecycle analysis, assess the benefits of the flow of materials to out-of-state recycling instead of H-POWER.
Action 9.4	Explore new public-private partnerships to increase the diversion of food and other organic materials from the waste stream through composting and/or other solutions.



Mahalo to the many community residents, civic leaders, technical advisors, and partners, as well as the University of Hawai'i Economic Research Organization and the Institute for Sustainability and Resilience at the University of Hawai'i at Mānoa for making this plan possible.

Download the full Climate Action Plan and track the City's implementation progress at www.resilientoahu.org

**One Climate
One O'ahu**

**CLIMATE ACTION PLAN
2020-2025**