

## 1. OVERALL PROJECT SUMMARY AND APPROACH

The Hawai'i State Energy Office; the State Climate Change Mitigation and Adaptation Commission; City and County of Honolulu Office of Climate Change; Sustainability, and Resiliency; County of Hawai'i Office of Research and Development; County of Kaua'i Office of Economic Development; and County of Maui Office of Innovation and Sustainable Development, hereinafter, referred to collectively as "the Coalition," propose to undertake the greenhouse gas (GHG) reduction efforts described in this workplan if awarded funding under the CPRG implementation grants general competition. The roles and responsibilities of each coalition member are described in detail below and will be further defined in the Coalition's Memorandum of Agreement, which will be finalized before July 1, 2024.

In line with EPA's Fiscal Year (FY) 2022-2026 Strategic Plan Goal 1, "Tackle the Climate Crisis"; Objective 1.1, "Reduce Emissions that Cause Climate Change" this proposal aims to "aggressively reduce the emissions of greenhouse gases..." from the transportation, building, waste, and land sectors. Hawai'i recognizes that addressing climate change requires collective action and collaboration between all levels of government directly in step with the community. The selected projects span all major islands with major population centers and reduce emissions across differing sectors (Table 1). Selected projects were refined and codesigned to be complementary and bolster one another's impact. Measures address climate goals identified by state and county agencies and reflect community priorities. The establishment of a state and county coalition reflects the need for a high level of coordination to implement these measures. Together, the Hawai'i Coalition addresses the full scope of the priority GHG reduction measures included in Hawai'i's PCAP. The Hawai'i State Energy Office (HSEO) is the lead applicant and the fiscal sponsor of the Coalition. The Coalition members as well as the roles and responsibilities of each Coalition member are listed below.

### Coalition Roles and Responsibilities

#### Hawai'i State Energy Office (HSEO), Lead Applicant

- Issuing sub-awards to coalition partners in accordance with [EPA's Subaward Policy](#)
- Overseeing subrecipients, and/or contractors and vendors
- Tracking and reporting on project progress on expenditures and purchases
- Tracking, measuring, and reporting accomplishments on proposed timelines and milestones.
- Submitting semi-annual progress reports on grant implementation and planned activities to EPA
- Submitting a final report to EPA within 120 days of the completion of the period of performance
- Assisting with community and stakeholder outreach and education

#### State of Hawai'i Climate Change Mitigation and Adaptation Commission (CCMAC), Coalition Member and Planning Grant Recipient

- Tracking and reporting to HSEO on project progress, expenditures, and purchases
- Assisting with tracking for Coalition partners.
- Tracking, measuring, and reporting to HSEO on outreach, milestones and performance metrics, and timeline adherence.
- Lead on community and stakeholder outreach and education for CPRG measures.
- Coordinating regular virtual meetings, including sector-specific working groups to support learning across projects.

#### City and County of Honolulu Office of Climate Change, Sustainability, and Resiliency; County of Hawai'i (COH), Office of Research and Development; County of Kaua'i (COK) Office of Economic Development; County of Maui (COM) Office of Innovation and Sustainability (OIS).

- Complying with subrecipient requirements under [EPA's Subaward Policy](#)
- Tracking and reporting to HSEO on progress, expenditures, and purchases for county projects.
- Tracking, measuring, and reporting to HSEO on accomplishments, timelines, and milestones.
- Conducting community and stakeholder outreach and education for County projects.

### a. Description of GHG Reduction Measures

In November 2023, HSEO issued a Request for Interest (RFI) seeking eligible entities with eligible projects addressing climate pollution reduction.<sup>1</sup> This RFI sought measures economy-wide including transportation, electric power, buildings, industry, waste, water, sustainable materials management, and agricultural sectors with a focus on enhancing greenhouse gas (GHG) removal. The evaluation committee, consisting of coalition members, scored, and selected sixteen (16) measures that collectively address climate pollution reduction statewide while providing multiple co-benefits for natural and cultural resources and services or benefits for disadvantaged communities across transportation, buildings, waste, and land sectors. For all projects, risks include rising costs of equipment and labor, permitting timelines, supply chain, and procurement delays. These and further risks identified below would impact emissions reduction estimations. Tasks and milestones for each measure are discussed further in Section 3c, Table 5.

*Table 1 Description of Selected GHG reduction measures and associated PCAP pages.*

Project Description	
Transportation	<b>1. Skyline Connect for Rapid Transit, Honolulu, O'ahu</b> This measure will establish transit priority lanes (TPL) and island-wide transit signal prioritization (TSP) along four major bus rapid transit (BRT) corridors to improve the connection between the Skyline rail and TheBus on O'ahu. These infrastructure improvements will reduce delay and travel time, stream line transit bus operations to achieve less idle time along major frequent bus corridors, and to expand rapid express bus access to the backbone Skyline rail line to increase transit ridership on O'ahu. <b>Risks:</b> Ridership may be lower than modeled. <b>GHG Milestone:</b> 2028 (PCAP Pages: 16, 25, 29, 35-36, 37, 40-42, 50, 56, 60)
	<b>2. Paratransit Fleet Electrification, Hilo and Kona, Hawai'i County</b> The measure will replace the current fleet and expand route service with 12 Battery Electric 9 Seat ADA Minibuses, each with 2 wheelchair positions and a wheelchair lift. This will increase capacity by upgrading from 6-passenger vans to 9-passenger vans and add five more. Community engagement will include low- and moderate income (LMI) and vulnerable residents in the route planning and to encourage ridership. <b>Risks:</b> Ridership may be lower than modeled. <b>GHG Milestone:</b> 2027 (PCAP Pages: 16-17, 25, 29, 37, 40-42, 50-51, 56, 61)
	<b>3. Expanding Honolulu's Shared Micromobility, Bikeshare Hawai'i, O'ahu</b> This measure will build and upgrade active transportation infrastructure on O'ahu by creating new electric mobility hubs. The project includes the installation of eStation kits (a package of eDocks and eBikes), outreach, and purchase of three EVs used to service and re-locate eBikes. This will facilitate shared micro-mobility that allows both new service types such as e-bikes in an existing service area and an expansion into new historically underserved areas including lower-income areas with less transit access late at night. <b>Risks:</b> Ridership may be lower than modeled. <b>GHG Milestone:</b> 2026 (PCAP Pages: 17, 25, 30, 37, 40-42, 51, 56, 61-62)
	<b>4. Complete Streets Infrastructure Improvements Kaua'i, Līhu'e and Kapa'a, Kaua'i</b> Project encompasses two major corridors on Kaua'i. Haleko Road improvements expand the entire length of Haleko Rd and include resurfacing pavements, widening the roadway to construct on-road bike lanes, constructing sidewalks where no sidewalk exists, adding crosswalks to increase community access; and intersection and turn lane improvements to improve traffic flow and increase pedestrian safety. The Kawaihau Road improvements will span 2.1 miles and includes pavement resurfacing and reconstruction, widened and/or new sidewalks, shoulder widening, intersection improvements including left turn lanes, crosswalks, and addition of bus stops. <b>Risks:</b>

<sup>1</sup> RFI-24-035-HSEO <https://hands.ehawaii.gov/hands/opportunities/opportunity-details/23581>

Project Description	
	Construction delays may delay implementation. Utilization may be lower than modeled. <b>GHG Milestone:</b> 2028 (PCAP Pages: 17-18, 25, 30, 37, 40-43, 51, 57, 62)
Buildings	<b>5. Affordable Green Housing Retrofit Program, Statewide (AGHRP)</b> The Coalition is collaborating with the Public Utilities Commission (PUC) to codesign an affordable housing retrofit program for Hawai'i. The Inflation Reduction Act makes hundreds of millions of dollars in funding available to Hawai'i for various building energy improvements. However, without additional support, this funding may not reach Hawai'i's most vulnerable communities. This comprehensive building retrofit program targets existing affordable multifamily homes and provides funding for its first 5 years of operation. Program design is ongoing now and includes an assessment of conditions in existing multi-unit residential buildings, identification of retrofit measures through a market potential study, and development of support tools and financing options that will be made available to buildings so that they can successfully design and implement comprehensive energy retrofits. The design is expected to be complete in the summer of 2024, and the program should be ready to start operating in late 2024. The result of the program will be more efficient, more comfortable, and safer buildings for lower-income residents across the state that save energy, lower utility bills, and improve the quality of life for multifamily building residents. <b>Risks:</b> User participation may be lower and slower than expected. Energy efficiency (EE) rates may not achieve estimated demand reduction. <b>GHG Milestone:</b> 2025 (PCAP pages: 18, 25, 30-31, 37, 40, 42-43, 51-52, 57, 62-63)
	<b>6. Green Building Improvements Pearl City Library, Hawai'i Public Library System, Honolulu</b> Implementation of green building design features including envelope upgrades, and highly efficient lighting measures for the Pearl City Public Library (PCPL) Renovation and Community Library Learning Center project to significantly reduce the existing and planned buildings' overall lifetime energy footprint and GHG emissions. The project will include education measures for library visitors highlighting EE. HIPLS views this building as the first of many building upgrades and aims for this project to be a demonstration, which can be expanded to other state facilities. <b>Risks:</b> Construction delays may delay implementation. EE rates may not achieve the estimated demand reduction. <b>GHG Milestone:</b> 2027 (PCAP pages: 18, 26, 31, 38, 40, 43, 52, 58, 63)
	<b>7. Energy Efficiency Upgrades – Kaua'i County</b> This measure will upgrade EE in Kaua'i County facilities; The Līhu'e Civic Center, fire stations, and neighborhood centers. Upgrades include exploring interior and exterior lighting and fixture upgrades to LED, film window treatments, refrigeration and other appliances, water heaters, air conditioning in small facilities, and additional improvements based on recommendations from a forthcoming energy audit. <b>Risks:</b> EE may not achieve the estimated demand reduction. <b>GHG Milestone:</b> 2026 (PCAP pages: 19, 26, 31, 38, 40, 43, 52, 58, 64).
	<b>8. Decentralized Compost Network, Sustainable Coastlines Hawai'i, Statewide</b> This measure will expand the production, distribution, and application of compost throughout the Hawaiian Islands by building a decentralized, community-based compost network. The measure involves the installation of at least 10 in-vessel containerized compost systems with emissions control systems. The Coalition expects there will be 4-5 units on O'ahu, 1 on Kaua'i, 1-2 on West Maui, 2-3 on Hawai'i, and 1 on Moloka'i. Community input will determine final project locations. <b>Risks:</b> Waste collection may not meet the estimated volume. <b>GHG Milestone:</b> 2026 (PCAP pages: 19, 26, 32, 38, 40, 52-53, 58, 64)
Waste	<b>9. Cardboard and Composting Waste Diversion Center, Recycle Hawai'i</b> Codeveloped with community partners to include two initiatives 1) A cardboard reuse project and 2) Partnering with Sustainable Coastlines (Measure 8) to set up an in-vessel composting system to divert food waste and provide centralized compost for local use. Note: Composting GHG calculations for this measure are included in Measure 8 to ensure no double counting. <b>Risks:</b> Project

Land	<p><b>Project Description</b></p> <p>site location may not be available (additional site options have been identified). Participation may not meet estimated numbers/demand. <b>*GHG Milestone:</b> 2026 (PCAP pages: 19, 26, 32, 38, 40, 43, 53, 58, 64-65)</p>
	<p><b>10. Reusable Foodware, Hawai'i County</b></p> <p>Expand an existing project currently being codeveloped with the community to implement a scalable reuse and refill program for food and beverage packaging for east Hawai'i Island. The measure includes collection, washing, and logistics infrastructure to support the circulation of reusable items and will serve as a pilot for similar programs throughout the state. <b>Risks:</b> Participation may not meet estimated numbers/demand. <b>*GHG Milestone:</b> 2026 (PCAP pages: 20, 27, 32, 38, 40-43, 53, 58-59, 65)</p>
	<p><b>11. Compost and Containers, Maui County</b></p> <p>This waste management measure will enhance sustainable practices in Maui schools through the installation of dishwashers and mobile washing stations to reduce reliance on single-use materials and diversion of food waste from landfills through composting. Composting actions will be conducted in collaboration with Measure 8 (GHG reduction is accounted for in Measure 8, to avoid double counting). Anticipated energy costs for the use washing of containers, using a low-temperature single-tank conveyer dishwasher at 1.6 kW. Approximately 700,000 lbs. plus of food waste including paper goods and 17,020 lbs. of plastics will be diverted from 37 Maui County schools annually once full participation is achieved. <b>Risks:</b> Waste collection may not meet estimated volume. <b>*GHG Milestone:</b> 2025 (PCAP pages: 20, 27, 33, 38, 40, 42-43, 53, 59, 65-66)</p>
	<p><b>12. Transfer Station Life Extension for Waste Diversion, O'ahu</b></p> <p>This measure will extend the O'ahu Island Transfer Station Reusable Material Collection Site project which diverts construction materials and household items from landfills. This project provides training for 40 workforce development participants annually, provides educational support and tours to partnering schools, and monitors progress through various metrics such as sales reports, donation logs, and greenhouse gas emission calculations based on material diversion. If awarded CPRG will support staffing the collection site on weekends, hauling materials to partner reuse organizations, providing on-site infrastructure such as forklifts and crates, project planning and oversight, community outreach, social media communication, and reporting. <b>Risks:</b> Waste diversion may not meet estimated volume. <b>*GHG Milestone:</b> 2025 (PCAP pages: 21, 27, 33, 38, 40-41, 43, 53-54, 59, 66)</p>
	<p><b>13. Integrating Waste and Land Management Systems, UH Soil Ecology, Hawai'i Island</b></p> <p>Establish capacity on Hawai'i Island to integrate waste and land management systems to reduce GHG emissions through nutrient recapture and generation of soil C amendments using a Circular Economy approach. Integration between established land managers, local meat processors, and agricultural producers will establish compost and biochar production from waste resources. Currently agriculture producers landfill up to 9 tons of animal harvest waste and accumulate 308 miles of travel weekly. The establishment of a composting facility at the site to compost animal harvest waste will facilitate the recapture of nutrients and eliminate the need to transport of materials to landfills. The establishment of pyrolysis capacity will reduce GHG emissions by diverting green waste to produce 79 MT of biochar annually from biocultural restoration and reforestation efforts on approximately 100 acres of invasive species. Production of biochar from waste will sequester carbon (C) for long periods and generate C soil amendments that optimize nutrient recapture and bioavailability. By producing highly demanded soil amendments locally, GHG emissions can be further reduced by decreasing dependence on imports. <b>Risks:</b> Survivorship of trees on restored land may be lower than estimated. Soil amendments may not offset imports. <b>*GHG Milestone:</b> 2026 (PCAP pages: 21, 27, 33-34, 39, 40-43, 59, 66-67).</p>

Project Description
<p><b>14. Maui Million Trees, Maui County</b></p> <p>This measure will plant 400,000 trees by 2030 – making substantial progress toward Maui’s one million native tree goal. Planting will preserve and restore critical forest ecosystems in Maui Nui. Native trees will reduce CO<sub>2</sub> emissions and mitigate flood and wildfire events improving safety for residents. CPRG funding is requested for seed collection/propagation, nursery build-out, hydro-mulching and seed dispersal, and site preparation. Securing a healthy seed bank of pioneer species, ‘A’ali’i (<i>Dodonaea viscosa</i>), ‘Ōhi’a (<i>Metrosideros polymorpha</i>) and Koa (<i>Acacia koa</i>) are vital for forest restoration efforts, especially after major disturbances such as fire. Seeds will be used to grow saplings that start as seed in protected nurseries, allowing the saplings to grow in maturity to enhance survival rates when out planting. This will be done in tandem with natural seed dispersal and hydro mulching which have shown to be successful methods of reforestation in Maui. <b>Risks:</b> Survivorship of trees on restored land may be lower than estimated. Wildfire may impact sites. <b>*GHG Milestone:</b> 2026 (PCAP pages: 22, 27, 34, 39, 40-42, 54, 59, 67)</p>
<p><b>15. Maui Biochar, Maui County</b></p> <p>This measure will produce biochar through pyrolysis of dead or dying invasive tree species primarily Eucalyptus and Black Wattle, which will be applied to soil, sequestering carbon, and improving soil quality in the county. Once the invasive Eucalyptus and Black Wattle is removed from the site, it will be replanted with native and endemic shrubs and trees, such as ‘A’ali’i, Koa, Koai’a (<i>Acacia koaia</i>), and others. <b>Risks:</b> Waste diversion may not meet estimated volume. Survivorship of trees on restored land may be lower than estimated. Wildfire may impact sites. <b>*GHG Milestone:</b> 2025 (PCAP pages: 23, 28, 34, 39, 40-41, 43, 54, 59, 67)</p>
<p><b>16. Reforestation on Maui, E kūpaku ka ‘āina</b></p> <p>This measure will reforest degraded lands upstream of the Waiehu Kou Hawaiian Homes subdivision, revitalize abandoned heavily degraded agricultural land, reduce wildfire risk, and increase community resilience. Project goals include reducing fire-prone invasive species biomass by 75% within 150 acres of a 350-acre site and removing 70% of Albizia trees on the entire 350-acre area over four years while neutralizing emissions from removal by converting the invasive species into bioremediation material targeted for Lahaina to mitigate toxic soils; to increase long-term sequestration this measure aims to plant 2,800 food trees, 1,000 native trees, and, ~17,000 native understory species. <b>Risks:</b> Survivorship of trees on restored land may be lower than estimated. Wildfire may impact sites. <b>*GHG Milestone:</b> 2026 (PCAP pages: 23, 28, 34, 39, 40-42, 54-55, 59, 68)</p>

#### b. Demonstration of Funding Need

The priority measures identified in this grant application were selected because they do not have alternative or sufficient funding available. The demonstration of funding needs by the project is described in detail in Table 2.

*Table 2 Priority measures, description of funding need, and description of other funding available (if applicable).*

Funding Need and List of Alternative and Matching Funding Streams
<p><b>1. Skyline Connect, City and County of Honolulu, O’ahu</b></p> <p><b>Funding Need:</b> Funding has not been previously available to increase TPLs programmatically. Recently installed lanes were implemented on an ad-hoc basis using excess budget from other projects. Before recent lane expansions, no TPLs were installed in the city for 30 years as the transit system grew and congestion and travel speeds worsened. Unlike other City transportation projects, transit lane construction is not eligible for City Capital Improvement Project bond funding since construction efforts are primarily signage, striping, and painting. This project is not an infrastructure project. The monies requested in this CPRG proposal would have to be funded through operating budgets and are eclipsed by other City operations needs and the establishment of bus lanes competes with the same budget monies that fund actual transit operations. It is difficult to justify a</p>

reduction in transit system services to establish and prioritize longer-term transit lanes; CPRG grant monies fill this need.

**List of Alternative and Matching Funding Streams:** City general operating funds, Federal Transit Administration (FTA) 5307 program formula funds, previously awarded discretionary funding and potential future discretionary grants. Congressionally directed spending and discretionary grants are already dedicated to fortifying bicycle and pedestrian infrastructure in significant corridors parallel to the proposed routes using these TPLs. They include a 30-mile South Shore Bike Path spanning between West O'ahu in Nānākuli and UH Mānoa/Waikiki in Honolulu and a Safe Streets for All planning grant to improve pedestrian safety along heavy-use transit corridors experiencing high crash and injury incident. The City has attempted to fund these improvements with separate line-item budgets but has not been successful in the past against competing basic City priorities.

## **2. Paratransit, Hawai'i County**

**Funding Need:** Hawai'i County Mass Transit Agency lacks capital improvement plan funds for the entire scope of this project. This application includes (5) additional CDL drivers and (1) a Road Supervisor position with fringe benefits, which would increase funding by \$2,312,190.

**List of Alternative and Matching Funding Streams:** The Department of R&D applied to the U.S. Department of Transportation (DOT) Charging, Fueling, and Infrastructure (CFI) Grant in May 2023 to fund \$3,970,672 for transportation infrastructure, with the County committing to a 20% match of \$992,668 through service usage fees.

## **3. Expanding Honolulu's Shared Micromobility, Bikeshare Hawai'i, O'ahu**

**Funding Need:** There are very limited/non-existent programmatic funds available to directly support bikeshare operations and fleet electrification compared to funds allocated for public transit (capital and operations) and EV chargers for cars (hardware and installation). For example, the FTA currently does not define bikeshare as a form of public transit, even though it serves this function and is defined as such in other countries. The existing system is now seven years old, and much of the original hardware (station kiosks and bikes) will need replacement. These costs are much higher for fleet electrification: the cost to add e-bikes and electrify stations for recharging ranges between \$10,000 to \$100,000 per station, compared to \$5,000 for a conventional station installation. Our existing revenue collection fully covers operations, maintenance, and insurance, but not fleet electrification or expansion. While this revenue collection is better than conventional public transit (3% to ~23% farebox return), it is similar in its need for support in capital investment and extending service to LMI areas.

**List of Alternative and Matching Funding Streams:** Bikeshare Hawai'i has secured \$75,000 from a private donor for fleet electrification planning and has also proposed \$500,000 from the City and County of Honolulu for annual capital funding in the existing service area.

## **4. Complete Streets, County of Kaua'i, Kaua'i**

**Funding Need:** Funding is requested only for the construction of greenhouse gas reduction measures. The County of Kaua'i lacks the capital improvement funds to fund these measures.

**List of Alternative and Matching Funding Streams:** Received \$200,000 from DOT's Safe Streets and Roads for All to develop a new comprehensive safety action plan. Additional funding from this program will be challenging to secure until the current grant is complete.

## **5. Affordable Green Housing Retrofit Program, Statewide**

**Funding Need:** Hawai'i's high cost of living, shortage of affordable housing, and heavy dependence on the tourism industry have resulted in a growing affordability crisis across the State. This manifests in a large homeless population, as well as significant annual outmigration, especially among vulnerable populations. While energy and climate policy are major priorities at the State and County levels, they are only financial priorities when they are responsive to more pressing community needs. With a large ALICE population, high rents, and high utility bills, there is an unending need for programs that support lower-income and vulnerable residents.

**List of Alternative and Matching Funding Streams:** Funding will be used to fill the gaps, particularly in administration. This program will allow for a targeted one-stop shop for efficiency programs, strengthening or supplementing the existing programs in the state. Existing and expected programs are expected to be supplemented with these funds and will act as an administrative bridge between existing state rebate programs, Hawai'i Public Benefits Fee (PBF) implemented by the PUC through Hawai'i Energy, and new federal programs: 1) Hawai'i Public Benefits Fund, 2) Dept. of Energy – HEAR grant, 3) Dept. of Energy - HOMES grant.

<p><b>6. Green Building Improvements Pearl City Library, O'ahu</b></p> <p><b>Funding Need:</b> The most recent project cost estimate exceeds available funding; without CPRG funds envelope upgrades and EE measures would not be included in the design for this state project.</p> <p><b>List of Alternative and Matching Funding Streams:</b> The most recent 80% project plan costs estimate for the PCPL project showed that the estimated cost for the project currently stands at \$34.7 million (including project costs + construction management fees). HSPLS has previously secured \$26 million from the State of Hawai'i for this project and is looking to secure an additional \$3.3 million from this grant to fund the GHG reduction measures.</p>
<p><b>7. EE Upgrades, County of Kaua'i</b></p> <p><b>Funding Need:</b> Kaua'i County lacks capital improvement plan funds for this project. Many of the federal programs for these types of upgrades are rightfully geared toward EE in housing and residential energy use.</p> <p><b>List of Alternative and Matching Funding Streams:</b> Kaua'i County is only eligible for \$77,540 under the EE &amp; Conservation Block Grant, thus additional funding is for the expanse of projects to achieve maximum EE.</p>
<p><b>8. Decentralized Compost Network for Hawai'i, Statewide, Sustainable Coastlines Hawai'i</b></p> <p><b>Funding Need:</b> Sustainable Coastline Hawaii (SCH) has successfully funded the first machine in Hawai'i, and a grant of this size will provide a more cohesive approach to network expansion by bringing online multiple machines in unison while providing training and management to move the project towards a future of self-sufficiency. SCH relies on both donations and grant funds to achieve projects like this composting network.</p> <p><b>List of Alternative and Matching Funding Streams:</b> SCH has received private donor funding to bring online the first composting machine in Hawai'i. SCH continues to seek out similar funds to further these efforts, however, limited federal funds have been secured to date. In collaboration with Compost Kaua'i, the county of Kaua'i awarded a \$48,000 start-up grant in 2023 to cover the cost of permitting and infrastructure in East Kaua'i to be ready for the addition of a machine. Kōkua Hawai'i Foundation and Sustainable Moloka'i have also secured portions of the startup funds to build on the network.</p>
<p><b>9. Cardboard and Compost Waste Diversion Center, Hawai'i Island, Recycle Hawai'i</b></p> <p><b>Funding Need:</b> EPA support is crucial in a constricted funding environment for nonprofits. Since the Maui wildfire tragedy, Hawai'i nonprofits have found themselves in a severely constricted funding environment which makes support from out-of-state sources sorely needed. EPA support for this project addresses the challenge faced by Hawaii's environmental and social justice nonprofits with Maui's needs rightfully taking precedence; at the same time, it represents a sound strategy for transforming existing resources into resilient, climate-smart models that can be readily adopted by other areas, including Lahaina, when the time is right.</p> <p><b>List of Alternative and Matching Funding Streams:</b> Although this collaborative proposal was well received by the Bezos Earth Fund and advanced to the final stages of approval, an ultimate decision has been on hold since BEF chose to donate \$100M to Maui wildfire recovery efforts.</p>
<p><b>10. Reusable Foodware, Hawai'i Island, County of Hawai'i (COH)</b></p> <p><b>Funding Need:</b> Additional funding will enhance the project's success and scope.</p> <p><b>List of Alternative and Matching Funding Streams:</b> This project has secured two EPA grants that will fund infrastructure equipment, supplies, and technical assistance. 1) EPA's Solid Waste Recycling Infrastructure Grant: \$1.5 million awarded to COH to support basic infrastructure (transport vehicles, return bins, dishwashers, and tracking technology) for the reusable foodware program. 2) EPA's Pollution Prevention (P2) Grants: Environmental Justice Through Safer and More Sustainable Products: \$622,000 awarded to UH Sea Grant will fund technical assistance and equipment for local businesses, schools, and community organizations that provide meals, to enable them to make the transition to the reuse system.</p>
<p><b>11. Compost and Containers, Maui, County of Maui OIS</b></p> <p><b>Funding Need:</b> Federal and state funding is necessary due to economic disruptions caused by wildfires. Other County funding for this program has been reallocated to wildfire recovery. See Measures 13 and 14.</p> <p><b>List of Alternative and Matching Funding Streams:</b> Eligible for USDA Composting and Food Waste Reduction Cooperative Agreements but funds are not available to meet matching requirements.</p>
<p><b>12. Waste Diversion O'ahu, Re-Use Hawai'i</b></p> <p><b>Funding Need:</b> CPRG funding is instrumental in supporting extending the Kapa'a Quarry transfer station diversion project to serve both the diversion of waste from landfills and the Re-Use Hawai'i Workforce Development program. The project funding will enable resource recovery through source separation and help to reduce GHGs. These best practices are critical for the continuum of the circular economy.</p> <p><b>List of Alternative and Matching Funding Streams:</b> Re-use Hawai'i received a grant from Honolulu City &amp;</p>

County for \$85k to specifically support the Transfer Station Reusable Material Collection Site Pilot Project and is collaborating with Chaminade University to apply for \$20 million in the EPA Environmental Justice Change Grant. If awarded, the grant would cover the costs of building a workforce development training center—funds cover separate scopes.
<b>13. Integrating Waste and Land Management, Hawai'i Island, UH</b>
<p><b>Funding Need:</b> This proposal demonstrates a strong need to be funded as it implements an ambitious system that will achieve significant GHG reductions while achieving substantial community benefits such as increases in local food security, food system sustainability, and ecosystem health. A critical deliverable will be to assess the feasibility and scalability of this circular economic system to decarbonize waste streams to inspire future decarbonizing projects through the availability of decision metrics, thereby closing a knowledge gap.</p> <p><b>List of Alternative and Matching Funding Streams:</b> Originally, this project was proposed for the Hawai'i Partnership for Climate-Smart Commodities (HiCSC) under USDA but was removed during re-budgeting. However, a final budget of \$40M was secured with our partners through HiCSC, thus this measure will complement and leverage funding to maximize benefits. As producers implement climate-smart agricultural practices through HiCSC, there is an increased demand for C soil amendments.</p>
<b>14. Million Trees, Maui, County of Maui, 15. Maui Biochar, Maui, County of Maui</b>
<p><b>Funding Need:</b> Federal and state funding is necessary due to economic disruptions caused by wildfires. The Economic Research Organization at the University of Hawaii (UHERO) has reported severe economic disruptions, with an initial 75 % drop in visitor arrivals and a staggering \$13 million per day decline in visitor spending in the weeks following the fires. There are limited county funds available for these initiatives.</p> <p><b>List of Alternative and Matching Funding Streams:</b> Additional funding to complete the Million Trees objective will be sought from the State Watershed Partnership Program and USFS Landscape Scale Restoration Grants.</p>
<b>16. Reforestation for Carbon Removal and Sequestration, Maui, E kūpaku ka 'āina</b>
<p><b>Funding Need:</b> As a nonprofit, E kūpaku ka 'āina is funded by grants attached to specific projects. Maui is in a time where most public and private funding has rightfully been directed to the recovery of Lahaina and Kula.</p> <p><b>List of Alternative and Matching Funding Streams:</b> Beginning in 2024, a partnership with the State and County, FEMA, USACE and the Lahaina Jodo Mission will implement bioremediation of toxic ash/soils in Lahaina. That project covers inoculating and installing the soil cover, but not the costs of steady production of base material (equipment and supplies for felling, bucking, and chipping Albizia) necessary to meet bioremediation needs.</p>

### c. Transformative Impact

The measures proposed in this application have the potential to create transformative impacts that lead to further significant additional GHG emission reductions; the transformative impact of each project is described by sector below:

**Transportation (Measures 1 - 4)** – Transportation is a major emitting sector in the state. The measures in the transportation sector were designed to enable and encourage alternatives to single-occupancy transportation VMT reduction projects (Measures 1, 3, 4) and will install infrastructure that makes alternative modes of transportation (walking, biking, and public transit) more appealing and accessible to the average resident and visitor. As more people use these modes of transportation, the Coalition anticipates more public support for future funding. **Measure 1**, Skyline Connect will operate approximately 1,000 daily trips, traveling approximately 15,000 daily miles and providing capacity for more than 100,000 new transit trips and riders on Honolulu's rapid TheBus routes. The entire TheBus network will benefit from TSP technology, allowing late-running buses to receive extra green light time and the ability to trigger signals at transit-only turns at intersections. This priority given to transit riders will increase rider satisfaction, improve travel time reliability on connecting bus services, prioritize transit as a superior mode, and grow ridership over time while reducing VMT and associated GHG emissions. Cities with comparable population and transit densities have experienced a 30% increase in ridership with TPL upgrades with a 20% reduction in travel time for passengers. Similar outcomes are expected for TheBus network with both TPLs, and TSP implemented on BRT lines connected to Skyline. **Measure 2**, Paratransit Fleet, expands public transportation as an option to members of the community who would otherwise be left out of the energy and transportation transition. The project will especially benefit elderly and LMI residents who lack access to ADA transit options, providing access to community

goods, services, and high-quality employment opportunities. **Measure 3**, Bikeshare Hawai'i, works in conjunction with CCH to provide transportation choices and has provided over 400,000 users with mobility during over 6 million trips (>14 million miles), while avoiding over 17 million pounds of GHG emissions.<sup>2</sup> The investment proposed in this application will increase the average number of rides per bike per day (~3.7 vs 2.5). This investment would also help minimize the pass-on costs to members of adding new stations in expansion areas to serve lower-income residential zones and prioritize active transportation as a viable method of travel reducing the need to own and operate a single occupancy vehicle. **Measure 4**, Complete Streets Kaua'i, improvements on Halekō will provide safe connectivity from primarily working class and Low Income and Disadvantaged Communities (LIDAC) neighborhoods on Rice St. to Nuhou/Nawiliwili Road, one of Kaua'i's largest shopping areas. On Kawaihau Road, improvements will provide a convenient, efficient, safe, and appealing alternative to vehicle use with safe pedestrian/bicycle connectivity from Kapa'a Homesteads to the elementary and high schools. Both projects will increase community connectivity while reducing VMT and associated GHG emissions.

**Buildings (Measures 5 - 7)** – Measures in the buildings sector are focused on cost-effective EE, as these measures reduce the cost of living for LMI homes, supplementing the funding provided by the US Department of Energy (DOE) (Measure 5) and cost savings for state and county buildings (Measures 6-7). **Measure 5** is designed to fill in the administrative gap left by the DOE Home Energy Rebates Program, and the Home Electrification and Appliance Rebate (HEAR) grant funding. The CPRG funding will provide a bridge between DOE programs and the established Public Benefits Fund (PBF) program by providing marketing and technical assistance to multifamily units that may not be aware of the resources available, especially in underserved areas. Funds will help target expanding the program's reach will result in GHG emissions reductions through EE measures and savings for LIDAC. **Measure 6** will serve as a model of the long-term cost-saving potential of installing energy-efficient measures. The public-centric focus of the library building will serve as a model and engagement tool to highlight the benefits of EE in GHG reductions and cost savings. **Measure 7**, Kaua'i County EE upgrades will provide similar impacts on the county scale. Together these projects serve as trailblazers for future investments in EE across multiple jurisdictions.

**Waste and Material Management (Measures 8-12)** Reducing food waste sent to landfills and incinerators in Hawai'i directly lowers greenhouse gas emissions. In addition, the centralized location of waste disposal facilities leads to increased transport emissions, burdening marginalized communities. Honolulu's 2019 Integrated Solid Waste Management Plan suggests on-site organic waste treatment to cut hauling costs.<sup>3</sup> The CCH 2020-2025 Climate Action Plan emphasizes maximizing waste resource efficiency, urging the exploration of public-private partnerships for composting. Measures 8-12 reduce emissions by diverting waste and using the organic waste as a soil amendment reducing chemical fertilizer use and promoting soil and NWL carbon sequestration.

**Natural Working Lands (NWL) / Agriculture Forestry and Other Land Use (AFOLU) (Measures 13 – 16)** The AFOLU sector is frequently underfunded and neglected despite its crucial role in combatting climate change. **Measure 13** takes the next step beyond materials management into a circular system, creating value-added products and reducing GHG emissions providing for a self-sustaining model that can be expanded and scaled. With the establishment of a local circular soil amendment market, there will be improved access to resources for growing food, building soil health, preserving native landscapes, and practicing aloha 'āina for historically underserved producers and land stewards. Further, by acknowledging the need for Native Hawaiian-led innovation in agriculture, relationships between researchers, decision-makers, and land stewards will strengthen and cause positive equity feedback of

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<sup>2</sup> <https://gobiki.org/faq/>

<sup>3</sup> <https://www.resilientoahu.org/waste>

increased local buy-in for GHG reduction and adoption of climate-smart land management. **Measures 14 and 15** will have a transformative impact on the Maui landscape. Wildfires that have devastated the island have taken their toll on the community and the natural resources. Landscape-scale restoration of watershed forests will increase the State's carbon sinks while providing vital water capture services to mitigate flooding and provide water security into the future. Finally, **Measure 16**, offers a unique and influential platform to serve as a model for other private landowners and public lands interested in improving the watershed properties of their land for commercial, pastoral, or agricultural use.

## 2. IMPACT OF GHG REDUCTION MEASURES

Table 2 provides estimates of the cumulative emission reductions in metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) anticipated from the implementation of the proposed measure(s) for two time periods. Further details on quantification methods, relevant assumptions, annual emission reduction estimates, and any uncertainties associated with the estimates are provided in the Technical Appendix.

*Table 3 List of GHG measures with corresponding GHG reductions for 2025-2030 and 2030-2050 in MT CO<sub>2</sub>e, individual and total. Cost-effectiveness of measures from 2025-2030 in dollars (\$) per MT CO<sub>2</sub>e, individual and average.*

Sector	#	Measure	GHG Reductions 2025-2030 (MT CO <sub>2</sub> e)	GHG Reductions 2030-2050 (MT CO <sub>2</sub> e)	Cost Effectiveness 2025-2030 (\$/MT CO <sub>2</sub> e)
Transportation	1	Skyline Connect for Rapid Transit	3,771	41,485	\$2,917
	2	Paratransit Fleet Electrification	2,138	12,826	\$1,871
	3	Expanding Honolulu's Shared Micromobility	1,550	3,101	\$1,935
	4	Kaua'i Complete Streets Infrastructure Improvements	115	879	\$43,603
Transport Total / Average Cost			<b>7,574</b>	<b>58,291</b>	<b>\$12,331.50</b>
Buildings	5	Affordable Green Housing Retrofit Program	5,178	34,945	\$1,458
	6	Green Building Improvements Pearl City Library	231	1,386	\$14,330
	7	Energy Efficiency Upgrades	1,044	9,392	\$958
Buildings Total / Average Cost			<b>6,453</b>	<b>45,723</b>	<b>\$5,582</b>
Waste and Material Management	8	Decentralized Compost Network Hawaii	11,718	58,588	\$212
	9	Cardboard and Composting Waste Diversion Center	6,075	6,075	\$82
	10	Reusable Foodware	6,404	30,802	\$321
	11	Compost and Containers	422	2,201	\$1,184
	12	Transfer Station Life Extension for Waste Diversion	171	171	\$790
Waste and Material Management Total			<b>24,790</b>	<b>97,837</b>	<b>\$517.80</b>
NWL / AFOLU	13	Integrating Waste and Land Management Systems	3,712	31,135	\$1,078
	14	Million Trees	38,367	345,302	\$52
	15	Maui Biochar	15,609	15,609	\$60

Sector	#	Measure	GHG Reductions 2025-2030 (MT CO <sub>2</sub> e)	GHG Reductions 2030-2050 (MT CO <sub>2</sub> e)	Cost Effectiveness 2025-2030 (\$/MT CO <sub>2</sub> e)
	16	Reforestation for Carbon Removal and Sequestration	2,514	11,581	\$968
<b>Natural Working Lands / Agriculture, Forestry, and Other Land Uses Total</b>			<b>60,202</b>	<b>403,627</b>	<b>\$540</b>
<b>TOTAL – All Projects</b>			<b>Total GHG Reductions 2025-2030 (MT CO<sub>2</sub>e)</b>	<b>Total GHG Reductions 2030-2050 (MT CO<sub>2</sub>e)</b>	<b>Average Cost Effectiveness 2025-2030 (\$/MT CO<sub>2</sub>e)</b>
			<b>99,018</b>	<b>605,476</b>	<b>\$4,489</b>

Implementation of the proposal will result in persistent GHG emission reductions that will extend beyond the grant period. Reductions in all categories will carry forward beyond the performance period of the grant, with nearly all reductions having permanent benefits. The cost-effectiveness of the proposal, inclusive of all measures in this application, is \$4,489 / MT of CO<sub>2</sub>e reduced. It is important to note, that the costs for Hawai'i are substantially higher than costs in the continental U.S. due to material shipping and freight costs. Complying with Buy America guidelines further requires compliance with the Jones Act potentially increasing costs for an island state like Hawai'i. Further, this Coalition application aimed to focus on the harder-to-fund projects, adding to the marginal costs of the priority measures. Costs associated with each measure are detailed in the Budget Table spreadsheet accompanying this application.

### 3. ENVIRONMENTAL RESULTS – OUTPUTS, OUTCOMES, AND PERFORMANCE MEASURES

#### a. Expected Outputs and Outcomes

In addition to the GHG reduction, Table 3, outputs and outcomes of each measure are shown in Table 4. The Coalition will complete semi-annual progress reports<sup>4</sup> which will include a summary of progress for each project, including the realized GHG reduction and progress on the metrics identified in Table 4. The Coalition will complete a detailed final report before the end of the reporting period.

Table 4 Metrics for tracking progress by measure number (#).

Sectors	#	Key Performance Metrics, Outputs, and Outcomes
Transportation	1, 3, 4	<b>Performance Metrics and Outputs:</b> Number of rides completed, Number of stations installed, % increase in LMI users, % increase in annual trips, % increase in number of uses. <b>Additional Outcomes:</b> Reduced travel/transit times, Driver fuel savings, Reduced vehicle miles traveled, Reduced fatalities and injuries, reduced pollution
	1	<b>Performance Metrics and Outputs:</b> Number of miles TPLs installed, #TSP installed in four key areas, # connections of bus and rail systems

<sup>4</sup> Beginning with the second semi-annual report, reporting will include detailed quantified benefits to LIDACs, including changes in co-pollutant emissions, and provide updates on ongoing and planned community engagement.

	2	<b>Performance Metrics and Outputs:</b> Number of new CDL drivers trained, Number of planned routes added, Number of residents signed up, Number of routes transitioned to electric, fuel savings (gal) <b>Additional Outcomes:</b> Increased mobility for community members with disabilities and elderly kupuna
Buildings	5, 6, 7	<b>Performance Metrics and Outputs:</b> Utility savings (kWh savings per unit), <sup>5</sup> Ratepayer/unit occupant utility bill savings, Decreased energy burden, Number of households participating in the program/number of multifamily units retrofitted. <b>Additional Outcomes:</b> Broader community awareness of green building measures, design guidance for building retrofit programs, workforce development, reduced exposure to indoor air pollution
	6	<b>Performance Metrics and Outputs:</b> Number of visitors educated. <b>Additional Outcomes:</b> Increased visitor awareness of green building measures, additional community meeting and recreation spaces, increased access to technology/internet for LIDAC
Waste	8, 9, 10, 11, 12	<b>Performance Metrics and Outputs:</b> Weight of compost generated, Weight of food waste diverted, number of jobs created, Number of staff trained, number of volunteers trained, Weight of cardboard, food waste, recycled (9), weight of furniture reclaimed, Number of community members participating in the program, Number of jobs created, Number of jobs redefined (12) Number of jobs created, Number of people trained, weight of waste diverted, weight of specific building materials repurposed <b>Additional Outcomes:</b> Increase compost supply for restoration efforts, prolonged life of landfills, green workforce skill development, support circular economy and economic growth, locally produced soil amendments and practices to remediate soil
	10, 11	<b>Performance Metrics and Outputs:</b> Community participatory workshops completed, System design finalized, System established, Businesses enrolled, Number of community members involved, weight of packaging composted, <b>Additional Outcomes:</b> Increased community awareness and participation in solid waste management and diversion techniques
NWL / AFOLU	13, 14, 15, 16	<b>Performance Metrics and Outputs:</b> 13 - Weight of waste diverted, Metric tons (MT) biochar produced, Number of acres restored, Number of jobs created Soil health indicators (water infiltration, CEC, etc.) 14) Number of acres reforested, Number of native species planted, weight of invasives removed, Number of community members involved, Number of jobs created 15- Weight of biochar produced, Weight of invasive vegetation removed, Soil amendment and water retention metrics <b>Additional Outcomes:</b> Improved water quality down-stream, green workforce development, increase native plant seed bank, wildfire mitigation, locally produced soil amendments.

Detailed outcomes and benefits for LIDAC are discussed in Section 4. Training for workforce development is included for Measures 8, 12 through 16. Workforce development is also included as a part of Measure 5, in the HOMES/HEAR grant, which HSEO is leading.

<sup>5</sup> Hawai'i has the highest utility costs in the nation based on average retail price per kWh. In 2022, the average retail price of electricity was 12.36 cents/kWh, in Hawai'i the retail price was 39.72 cents/kWh.

### b. Performance Measures and Plan

The Coalition has established performance measures to track progress. Table 4 shows key performance metrics for each priority measure. Coalition partners will track progress for each performance measure within their jurisdiction via a customized reporting form to be developed by HSEO. This will be used to report project progress and milestone completion to HSEO and the CCMAC. Partners will provide a status update for each performance measure to EPA in the semi-annual reports and final report. Proof of completion of preceding performance metrics and milestone completion will be required from subawardees before HSEO will release funds, these requirements will be established during subcontract agreement development.

### c. Authorities, Implementation Timeline, and Milestones

The diversity of projects requires varied timelines. All projects have identified key milestones for specific tasks, and key actions needed to meet project goals and objectives by the end of the grant period. Each project will operate on its own timeline. Timelines and milestones are listed in Table 5. Section 1 further lays out the roles of Coalition members.

Table 5 Timelines, Milestones, and Authorities to Implement

	Measure Timelines, Milestones, Authorities to Implement
1 Skyline	<p>2024: Planning and contract agreements with HSEO. Community outreach.</p> <p>Jan-Oct 2025: Design procurement: Hire Project Manager (PM); Draft RFP; Select vendor.</p> <p>Oct 2025-Nov 2026: Project design: Community outreach; Budget review; Vendor reporting.</p> <p>Dec 2026: Finalized design plans submitted through the City's One-Time Review process.</p> <p>Jun-Dec 2027: Construction procurement: Draft RFP; Select vendor.</p> <p>Jan 2028-Jun 2029: Installation: PM oversight and vendor reporting. <b>*GHG Reduction begins</b></p> <p>Jun-Dec 2029: Performance evaluation: Reporting; Continued community engagement.</p> <p><b>Authority:</b> CCH in coordination with Hawai'i Department of Transportation. PCAP pg. 56</p>
2 Paratransit	<p>Jan-April 2025: Planning and contract agreements with HSEO.</p> <p>May-Jul 2025: Procurement: Scope vehicles and draft RFP; Select vendor for vehicles.</p> <p>Sept-Dec 2026: Hire new positions: Review budget with prevailing wages; Interview; Hire.</p> <p>Jan 2027-Apr 2027: EVs to existing routes; new routes begin. <b>*GHG Reduction begins</b></p> <p>April 2027-Dec 2029: Performance evaluation: Reporting, and Community engagement.</p> <p><b>Authority:</b> Hawai'i County MTA. PCAP pg. 56</p>
3 Bikeshare	<p>Jan-Jun 2025: Equipment order, proposed station siting: Community Outreach; Draft RFP.</p> <p>Jun-Dec 2025: Obtain utility and station street use permits: Review new requirements.</p> <p>Jan-Oct 2026: Deploy hardware: Procure construction vendor. <b>*GHG Reduction Begins</b></p> <p>Oct 2026-Dec 2026: Review and assessment: Track utilization; Troubleshoot any issues.</p> <p>Oct 2026-Dec 2029: Performance evaluation: Reporting; Continued community engagement.</p> <p><b>Authority:</b> Activities covered in bikeshare's contract with the CCH. PCAP pg. 56</p>
4 Complete Streets Kauai	<p>Oct 2024-May 2025: Planning and contract agreements with HSEO: Community outreach.</p> <p>Jan-May 2025: Design: Draft RFP; Select vendor; Community outreach.</p> <p>May 2025: Design completion: Review budget; Community outreach.</p> <p>Jan 2026-Mar 2028: Construction: Procure construction vendor. <b>*GHG Reduction Begins</b></p> <p>Mar 2028-Dec 2029: Performance evaluation: Reporting, and Community engagement.</p> <p><b>Authority:</b> COK in coordination with Hawai'i Department of Transportation. PCAP pg. 57</p>
5 AHGRP	<p>Oct 2023-Jul 2024: Program design: Consult with PUC, HECO and KIUC; Community outreach.</p> <p>Jul 2024-Oct 2025: Program Launch: Contract agreements with HSEO Hire staff; Community outreach; Identify priority buildings. <b>*GHG Reduction Begins</b></p> <p>Oct 2025: Full scale deployment: Outreach plan initiated; Review and troubleshoot issues.</p> <p>Nov 2025: Performance evaluation: Reporting, and Community engagement.</p> <p><b>Authority:</b> CCH in coordination with HSEO. PCAP pg. 57</p>

	Measure Timelines, Milestones, Authorities to Implement
6 Pearl City Library	<p>April 2024-June 2024: Bid to Contract Phase: Advertisement and Pre-Bid Conference; Bid Opening Target; Select vendor; Finalize contract.</p> <p>May 2025-May 2026: Construction and project completion: Review budget; Design community outreach. <b>*GHG Reduction Begins</b></p> <p>Mar 2027-Dec 2029: Performance evaluation: Reporting; Community engagement</p> <p><b>Authority:</b> HSLs under HRS Chapter 196, Permits from CCH. PCAP pg. 57</p>
7 EE Kauai	<p>Oct-Dec 2024: Priority buildings energy audit, retrofit assessment, and installations: Identify utility incentive programs; coordinate with county maintenance department; hire vendors.</p> <p>Jan-Mar 2025: Energy audits continue: County in reach; Audit review.</p> <p>Apr 2025-Dec 2025: Procurement for EE upgrades: Draft RFP; Select vendor.</p> <p>Jan-Dec 2026: Installation at Fire Stations, Neighborhood Centers <b>*GHG Reduction Begins</b></p> <p>Jan-Dec 2027: Installation at Lihue Civic Center: Coordination with Civic Center Staff.</p> <p>Jan-Dec 2028: Finalize all installations: Budget review; Contractor reporting.</p> <p>Jan-Dec 2029: Performance evaluation: Reporting.</p> <p><b>Authority:</b> COK under Resolution 2010-48. PCAP pg. 57</p>
8 Decentralized Compost	<p>2024: Planning: Draft site plans, hire campaign needs, partner outreach</p> <p>Jan-Mar 2025: Finalized site selection; Community engagement; Permitting; Hire staff.</p> <p>Mar-Oct 2025: Machine procurement for Phase I sites: Draft solicitation; Select vendor.</p> <p>Oct-Dec 2025: Installation of Phase I machines, partially operational: <b>*GHG Reduction Begins</b></p> <p>Oct-Dec 2025: Training and workforce development begins.</p> <p>Jan-Dec 2026: Site installation for additional Phase I machines, additional GHG reduction.</p> <p>Jan 2026: GHG Reporting and tracking for operational machines.</p> <p>Mar-Dec 2026: Pilot operations to develop ideal recipes based on site-specific inputs</p> <p>Jun 2026-Dec 2026: Scoping &amp; permitting for phase II machines</p> <p>Jan-Dec 2027: Phase II installations, reporting, continued training, and capacity building.</p> <p>Economic forecasts based on Phase I results.</p> <p>Jun-Dec 2027: Develop a comprehensive business plan, and qualitative surveys to inform the increased expansion of the network.</p> <p>Jan 2028-Dec 2029: Performance evaluation, reporting, and community engagement.</p> <p><b>Authority:</b> SCH will obtain permits from the Department of Health (DOH). PCAP pg. 58</p>
9 Cardboard and Compost	<p>Mar-Dec 2025: Planning: Tenant and community outreach; Permitting/clean stream collection; Design review and adjustment. <b>(See Measure 8 for vessel composting timelines.)</b></p> <p>Jan-Jun 2026: Implementation: Finalize siting with tenant and community input.</p> <p>Jun-Dec 2026: Clean stream collection begins. <b>*GHG Reduction Begins</b></p> <p>Jan 2027-Dec 2029: Performance evaluation, reporting, and community engagement.</p> <p><b>Authority:</b> Recycle Hawai'i will work with DOH and COH to obtain permits. PCAP pg. 58</p>
10 Reusable Foodware	<p>2024: Program design: Consult with PUC, HECO, and KIUC; Community outreach.</p> <p>Jan-Dec 2025: Contract agreements with HSEO; System set up; Site identification; Hire staff.</p> <p>Jan-Jun 2026: Pre-launch: Identify small-scale pilot sites; Review and adjust program.</p> <p>Jun-Dec 2026: Program implementation: Launch adjusted program. <b>*GHG Reduction Begins</b></p> <p>Jan-May 2027: Continued review and program improvements; Data collection and analysis.</p> <p>Jun 2027 -Dec 2029: Program Expansion; Identify gaps in service area; Adjust for site needs.</p> <p>Jan 2028-Dec 2029: Performance evaluation and reporting.</p> <p><b>Authority:</b> COH has authority under Administrative Rule 2-10. PCAP pg. 58</p>
11 Compost & Containers	<p>2024: Draft site plans; Permitting; Partner outreach; Develop informational materials</p> <p>Jan-Aug 2025: Finalized site selection: Community engagement; hire staff.</p> <p>Aug-Dec 2025: Site installation of 25% of Phase I <b>*GHG Reduction Begins</b></p> <p>Jan-Dec 2026: Site installation. Activate 50% of Phase I</p>

	Measure Timelines, Milestones, Authorities to Implement
	<p>Jan-Dec 2027: Final installation for 100% phase I implementation</p> <p>Jan-Dec 2028: Launch Phase II to cover all schools and more hotels in Maui Nui</p> <p>Jan-Dec 2029: Performance evaluation, reporting, and continued community engagement.</p> <p><b>Authority:</b> Maui County will work with DOH to obtain permits. PCAP pg. 59</p>
12 Waste Diversion	<p>Jan-Oct 2025: Haul materials to partner reuse organizations; Oversee the project and record reporting content; Continue community outreach; <b>*GHG Reduction Begins</b></p> <p>Oct 2025: Performance evaluation and final reporting.</p> <p><b>Authority:</b> Re-Use Hawai'i has a current permit with DOH. PCAP pg. 59</p>
13 Waste and Land Management UH	<p>Jan-Jun 2025: Finalize contracts with HSEO; Hire staff; Begin procurement equipment.</p> <p>April-Dec 2025: Planning: Permitting; Begin infrastructure development.</p> <p>Oct-Dec 2025: Submit annual report to HSEO. Start data collection for feasibility analysis.</p> <p>Jan-Jun 2026: Permitting and procurement complete; Training begins; Begin finalizing feedstock sourcing, prices, and logistics or procurement or production; Install infrastructure.</p> <p>Jul-Dec 2026: Install equipment; Test processing feedstock. <b>*Test Scale GHG Reduction Begins</b></p> <p>Oct-Dec 2026: Data collection and analysis; Identify challenges and barriers in start-up phase</p> <p>Jan-Dec 2027: Proof of concept scale production fully operational; Analysis data collection including challenges and barriers encountered in the 'production phase'. Use of amendments produced on-site at OK Farms and HuiMAU. <b>*Production Scale GHG Reduction Begins</b></p> <p>Jan-Dec 2028: Feasibility analysis data collection including challenges and barriers encountered in the 'production phase'. Use of amendments produced on-site.</p> <p>Oct-Dec 2028: Reporting and Scalability Analysis: Identify funding for scaling; Evaluation of the amendments produced; Application of amendments to natural and working lands.</p> <p>Oct-Dec 2029: Performance evaluation and reporting.</p> <p><b>Authority:</b> UH will obtain a permit from DOH. PCAP pg. 59</p>
14 Maui Million Trees	<p>Jan-Dec 2025: Intensive seed collection and propagation of seed stock: Funding to partners.</p> <p>Jun-Dec 2025: Building nurseries: Draft RFP; Select vendor; Construction contract.</p> <p>Jan-Dec 2026: Plant 50,000 trees: Propagation; Site prep; Outreach. <b>*GHG Reduction Begins</b></p> <p>Jan-Dec 2027: Plant 100,000 trees: Propagation; Site prep; Monitor; Evaluate; Outreach.</p> <p>Jan-Dec 2028: Plant 150,000 trees: Propagation; Site prep; Monitor; Evaluation; Outreach.</p> <p>Jan-Dec 2029: Final planting of 100,000: Propagation; Site prep; Monitor; Final reporting.</p> <p><b>Authority:</b> Maui County and landowner agreements. PCAP pg. 59</p>
15 Maui Biochar	<p>Jan-Apr 2025: Planning: Permitting; Procurement; Draft RFP; Vendor selection.</p> <p>Apr-Jun 2025: Community outreach; Vendor Contract; project start. <b>*GHG Reduction Begins</b></p> <p>Apr-May 2028: Project Conclusion; Performance evaluation; Final reporting.</p> <p><b>Authority:</b> Maui County will work with DOH to obtain permits. PCAP pg. 59</p>
16 Maui Reforestation	<p>Jan-Dec 2025: Project setup: Staff hires; Buy equipment; Invasives removal; Propagation</p> <p>Jan-Dec 2026: Field prep; Food and native plantings; Staff training. <b>*GHG Reduction Begins</b></p> <p>Jan-Dec 2027: Continued invasive species removal; Food tree and native species propagation, planting, and maintenance; Monitoring; Evaluation; Reporting.</p> <p>Jan-Dec 2028: Ongoing invasive species removal, planting, maintenance, and monitoring.</p> <p>Jan-Dec 2029: Evaluation. Ongoing outreach, volunteer training, and maintenance.</p> <p><b>Authority:</b> E kūpaku ka 'āina and landowner agreements. PCAP pg. 59</p>

#### 4. LOW-INCOME AND DISADVANTAGED COMMUNITIES

##### a. Community Benefits

If awarded, measure implementation will benefit low-income and disadvantaged communities (LIDACs). The attached **Areas\_HawaiiCoalition.xlsx** lists all of the LIDAC census block group IDs that would benefit

from this proposal. Project locations and LIDAC areas for each island are shown in Figures 1-5 and an interactive map of proposed project locations is available at: <https://arcg.is/1Xm84a0>. This interactive map will identify key communities with which to engage. Measures will benefit the communities they are located by reducing hazardous air pollutants (HAP), and criteria air pollutants (CAP), listed in **GHGCalcs\_HawaiiCoalition.xlsx** Summary Dashboard tab. It is important to note spatial data availability for certain criteria and hazardous air pollutants is limited in Hawai'i.<sup>6</sup> This directly impacts the ability to measure the efficacy of measures.

Figures 1-6 show projects in relation to LIDAC areas on O'ahu, Hawai'i Island, Maui Nui, and Kaua'i. In addition, the maps show Hawaiian Homelands areas. While not all Hawaiian Homelands are designated as LIDAC by the EPA, the Department of Hawaiian Homelands reports that lessee income is still lower than the state's median income.<sup>7</sup> Measures directly and positively impacting Hawaiian Homeland communities include Measures 1, 2, 5, 8, 9, 10, and 16.

Figure 1 displays measure locations for Measures 1, 3, 6, 8, and 12 on the island of O'ahu. O'ahu has the largest population and highest number of LIDAC. Measures encompass the island to provide considerable LIDAC benefits, including improved air quality, increased access to reliable public transportation, improved health, reduced transportation costs, lower energy costs, and increased safety. Maps do not show Measure 5 which will serve identified LIDAC and other qualifying low-income multifamily households. Existing landfills, a locally unwanted land use, are also shown in relation to LIDAC (also in maps 4-6). Many landfills are at capacity. Projects that divert waste (Measure 8-12) will benefit landfill host communities by preventing expansion and reducing landfill trips.

Bikeshare eBike Station locations are shown in Figure 2. The map demonstrates how this program connects LIDAC neighborhoods to major business districts. Areas in the Skyline (1) and Bikeshare (3) service areas have traffic proximity percentile exceeding the 90<sup>th</sup> national percentile based on EPA's EJScreen as shown in Figure 6 LIDAC exposure to pollutants is extremely high here due to proximity to highways and traffic and common open-air home design. In addition to reducing pollutants, Measures 1 and 3 directly benefit this area by reducing the traffic congestion, VMT, and through existing reduced fare programs for reducing travel costs for LIDACs.<sup>8</sup> Figure 6 shows measures providing benefits to LIDAC

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<sup>6</sup> The COBRA tool is not available for Hawai'i, Alaska, and island territories, indicative of potential data inequities which are common for non-contiguous states and territories. Common US models/databases are not inclusive of all US states and territories. <https://cobra.epa.gov/>

<sup>7</sup> DHHL Beneficiaries Study Lessee Report, 2020. [https://dhhl.hawaii.gov/wp-content/uploads/2021/01/DHHL\\_Lessee-UI\\_Report\\_FINAL-202101.pdf](https://dhhl.hawaii.gov/wp-content/uploads/2021/01/DHHL_Lessee-UI_Report_FINAL-202101.pdf)

<sup>8</sup> <https://www.thebus.org/Fare/ReducedFares2023.asp>, <https://gobiki.org/everybody-rides/>

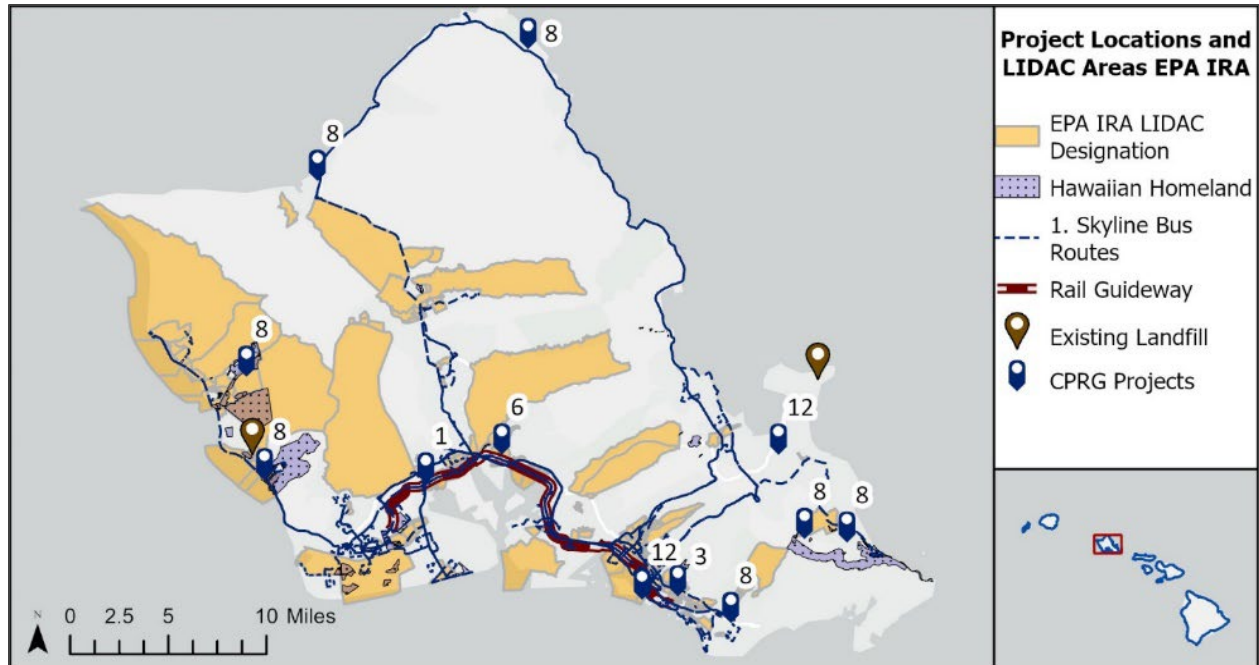


Figure 1 O'ahu LIDAC Areas as designated by EPA IRA LIDAC mapper and proposed projects by project number. Note measure 5 is not pictured as it will encompass multiple residences across the state.



Figure 2 Bikeshare existing service area (small grey icons) and expansion areas (large purple icons). Bikeshare service area include O'ahu's primary urban center and major business district. Expansion is focused on designated LIDAC areas, including the Kalihi-Iwilei neighborhood.

via increased health benefits reduced transportation costs and increased community cohesion. The Inset map shows Hilo, a largely LIDAC area, where many Hawai'i Island measures are based.

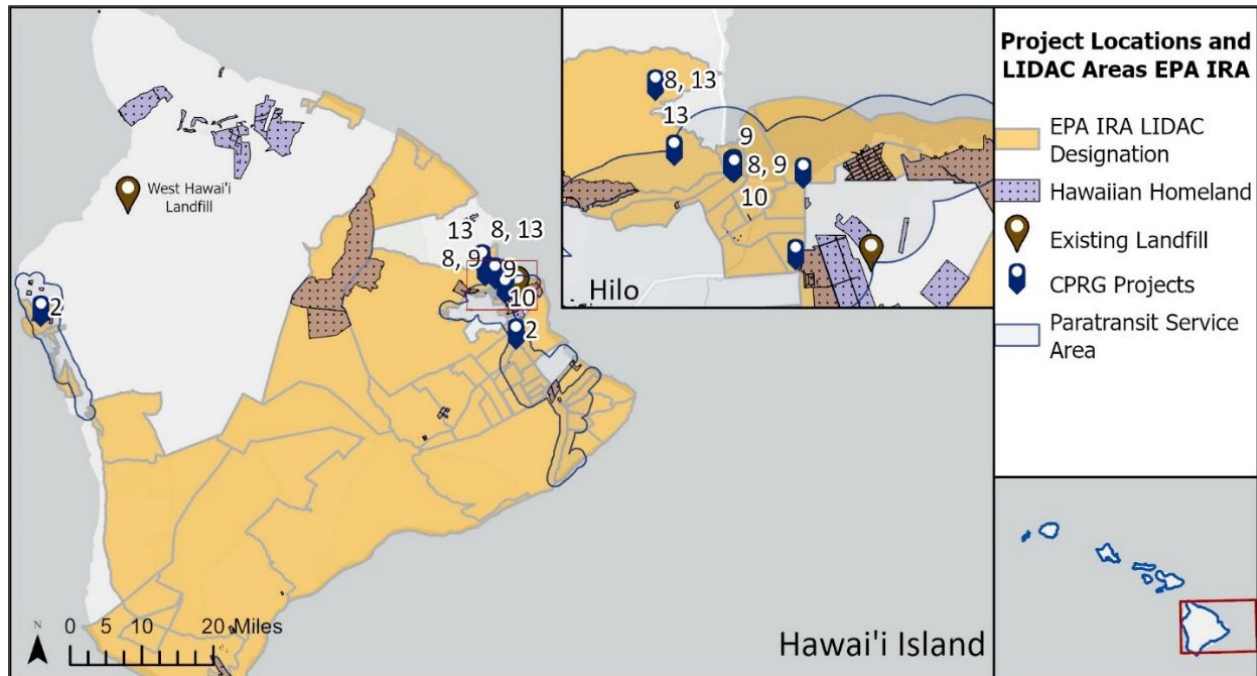


Figure 3 LIDAC Areas as designated by EPA IRA LIDAC mapper and proposed Hawai'i Island projects by project number. I

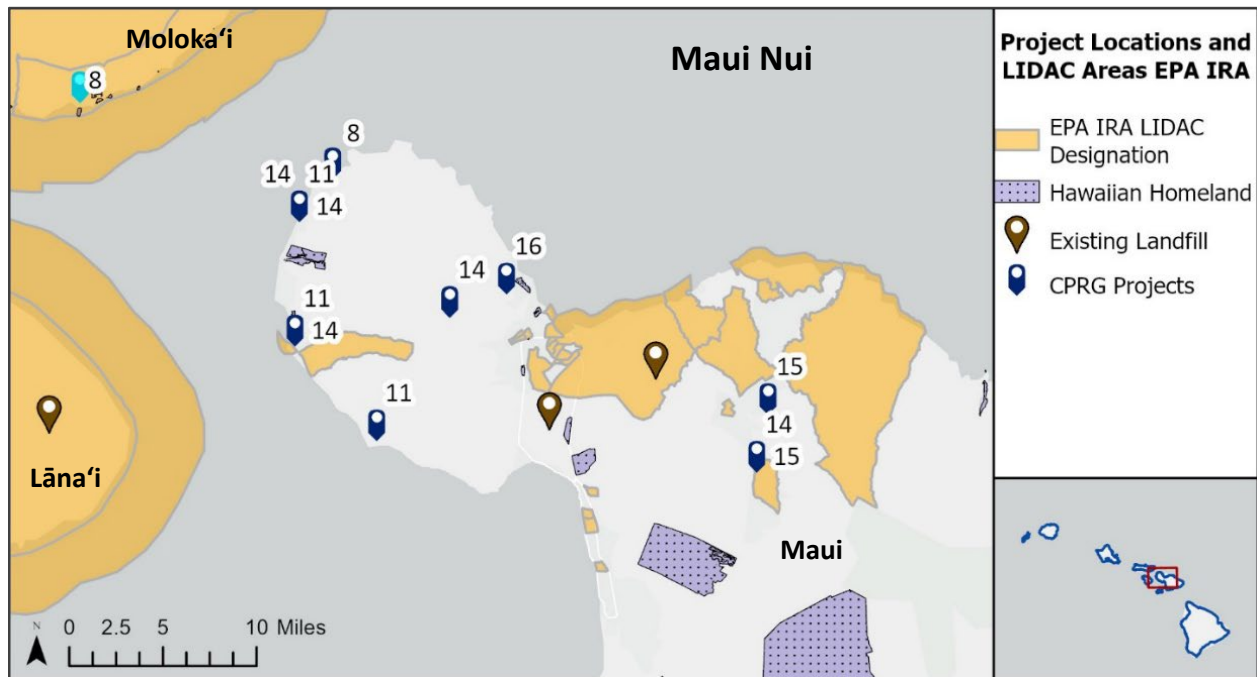


Figure 4 LIDAC Areas as designated by EPA IRA LIDAC mapper and potential project locations in Maui County, which include projects on Maui Island and Moloka'i. Note Measure 5 is not pictured as it will encompass multiple residences across the state.

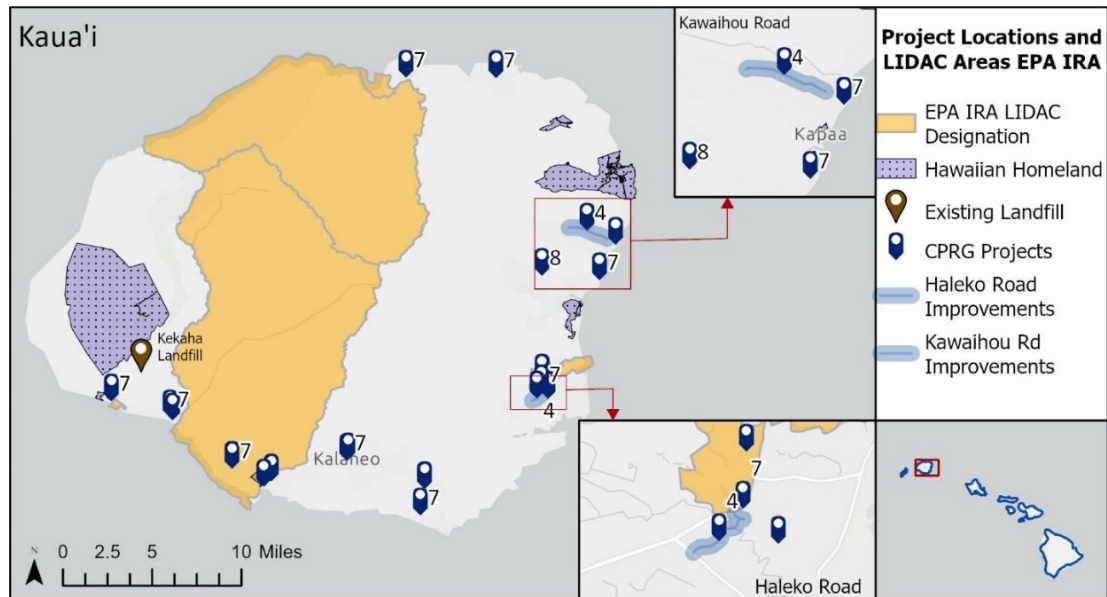


Figure 5 LIDAC Areas as designated by EPA IRA LIDAC mapper and proposed Kaua'i projects by project number: Complete Streets (4) also shown in blue. The Inset maps show Complete Streets measures.

Figure 6 includes measures that provide infrastructure for increased mobility options for LIDAC, reduced transportation costs, and healthy mobility options. Kaua'i LIDAC populations are not well represented on EPA maps, but projects are expected to provide benefits to those in need.

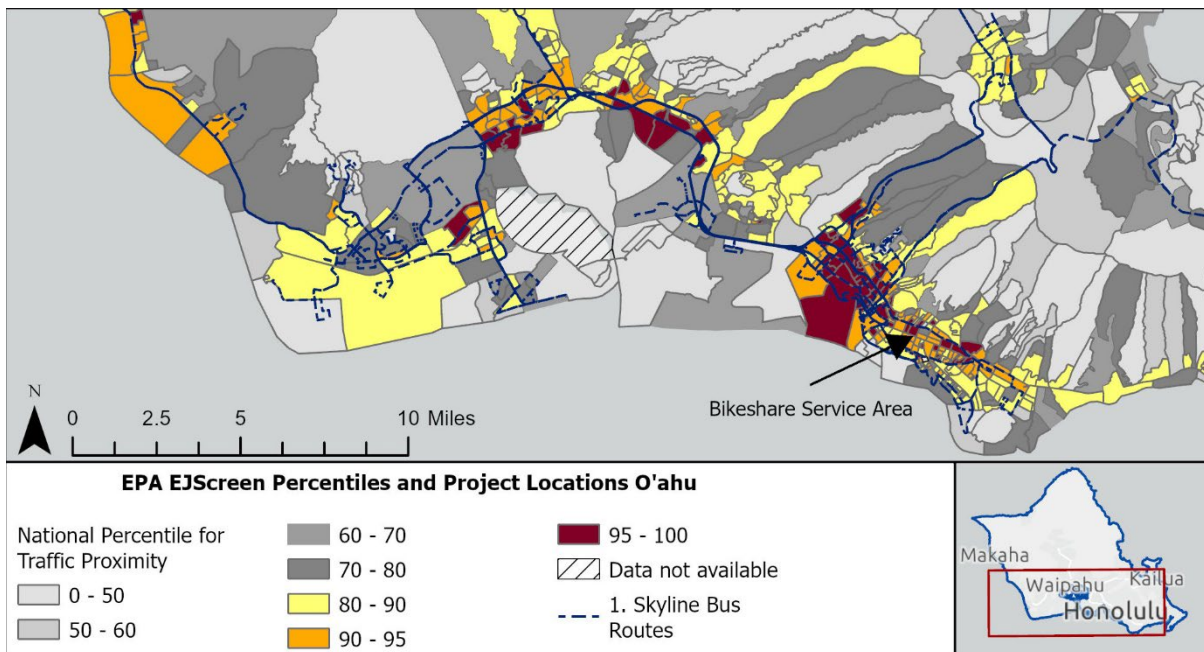


Figure 6 Shows EPA EJScreen National Percentiles for Traffic Proximity in Urban Honolulu and South O'ahu.

The benefits to communities are heavily influenced by sector. For example, for transportation projects (Measures 1-4), benefits to LIDAC include fuel savings, CAP and HAP reduction (estimates shown in Table 6), and improved access to transit. Note, where there are increases in  $\text{NO}_x$  and  $\text{PM}_{2.5}$ , these will be abated as the city actively converts TheBus fleet to electric as required by [Ordinance 20-47](#), these increases are very conservative estimates that assume diesel bus operations.

Table 6 Criteria Air Pollutants changes for transportation measures, and estimated impact to LIDAC.

Measure	Co-pollutant Reduction (2025-2050)					LIDAC Co-pollutant Reduction (2025-2050)				
	NH <sub>3</sub> (MT)	NO <sub>x</sub> (MT)	PM <sub>2.5</sub> (MT)	SO <sub>2</sub> (MT)	CO (MT)	NH <sub>3</sub> (MT)	NO <sub>x</sub> (MT)	PM <sub>2.5</sub> (MT)	SO <sub>2</sub> (MT)	CO (MT)
1	4.9	(11.2)	(3.2)	-	549.0	3.9	(9.0)	(2.5)	-	439.2
2	-	4.0	0.1	-	119.0	-	3.4	0.1	-	101.2
3	-	0.4	(0.0)	30.6	-	-	0.2	(0.0)	15.3	-
4	-	0.3	0.0	-	8.2	-	-	-	-	-
5	-	83.6	10.2	140.5	-	-	83.6	10.2	140.5	-
6	-	3.3	0.4	-	-	-	3.3	0.4	-	-
7	-	65.5	5.3	23.5	-	-	32.8	2.6	11.7	-

AFOLU measures, benefits adjacent LIDAC through improved water quality, increased access to local food, reduced food costs, and reduction in co-pollutants, as shown in Table 7.

Table 7 Criteria Air Pollutants changes for AFOLU measures, and estimated impact to LIDAC.

Measure	Co-pollutant Reduction (2025-2050)				Co-pollutant Reduction (2025-2050)			
	NO <sub>x</sub> (MT)	PM <sub>2.5</sub> (MT)	SO <sub>2</sub> (MT)	CO (MT)	NO <sub>x</sub> (MT)	PM <sub>2.5</sub> (MT)	SO <sub>2</sub> (MT)	CO (MT)
13	0.2	0.0	-	1.4	0.2	0.0	-	1.4
14	15.6	7.7	37.2	-	-	-	-	-
15	(0.1)	-	-	-	-	-	-	-
16	0.8	0.4	2.3	-	-	-	-	-

To assess, quantify, and report associated community benefits, including co-pollutant (CAP and HAP) emission reductions, the Coalition will use key performance indicators, identified in Table 4 and quantitative measurements used in the *GHGCalcs\_HawaiiCoalition.xlsx* file to determine the ongoing impact of these measures on measure host communities. Ongoing community engagement to inform the indicators will continue throughout the duration of the projects.

#### b. Community Engagement

Each coalition partner has performed community outreach on these projects or related projects in the past including outreach and engagement with LIDACs. Measures and partners were chosen specifically for the outreach they have conducted, see Section 6, and the existing relationships with project host communities, this is particularly critical for projects proposing new or modified infrastructure (Measures 1, 3, 4, 6, 8, 13-16). Coalition partners identified LIDACs using the EPA Inflation Reduction Act (IRA) Disadvantaged Communities map and geodatabase.<sup>9</sup>

Coalition partners used the following strategies for engagement with LIDACs to seek their input on the creation of the measures included in this proposal: 1) Targeted outreach to known community-based organizations, as well as other county, and state departments; technical working group convenings for each sector; co-development of outreach activities and idea with the State Act 238 Decarbonization Report. The Coalition believed that involving community organizations from the start of project development was critical to project success and felt many of the actions needed should be conducted by community organizations with established community trust; therefore, HSEO issued a Request for

<sup>9</sup> <https://ejscreen.epa.gov/>

Interest (RFI) to seek interested partners for inclusion in the Implementation Grant. THE RFI was widely distributed through the networks of HSEO, CCMAC, and County offices. See the State of Hawai'i and Honolulu MSA PCAPs for additional details on the results of this engagement effort. The Coalition and community partner sub-awardees recognize that outreach and engagement is an ongoing dialogue with host communities and communities impacted by each measure, coalition members intend to continue meaningful engagement with LIDACs and all host communities throughout the entire performance period and beyond implementation. The coalition will seek input from LIDACs while developing promotional materials, guidance, and other materials.

The Coalition and community subawardees have dedicated community outreach and engagement teams who will be active through the grant period providing meaningful opportunities for engagement with community members, especially those from LIDAC, through events, meetings, workshops, and online engagement. This continuous outreach and engagement is designed to both communicate and seek ongoing feedback and input from key stakeholders in relation to the State and counties' climate action plans and programs of which this Implementation grant is a part. Letters of commitment from community-based organizations and other stakeholders are included as an attachment to this application, see *[LOC\\_HawaiiCoalition.pdf](#)*.

## 5. JOB QUALITY

All projects and any associated procurement will support high-quality jobs that will mandate the payment of prevailing wages, support unionized jobs, provide equitable opportunity for entry into new positions, and in some cases (Measures 8, 12, 16) provide entry-level and apprenticeship opportunities and on-the-job training to develop skillsets and retrain professionals. The wide scope of the projects presented in this proposal highlights the importance of a variety of skillsets and training opportunities in the State. Positions range from field technicians to engineers requiring both soft and hard skills, university, technical and trade school training, and some entry level positions. Local hires will be prioritized for new positions created with additional recruitment efforts for native Hawaiian and Pacific islander populations and women who are largely underrepresented in many of the sectors represented in the proposal. Measure 2, Paratransit Fleet Electrification, will provide opportunities for new drivers to earn a competitive wage while connecting communities in a low emission capacity. Measures 1, 3, and 4 will support efforts to shift transportation models towards reduced VMT, expanding the need for highly trained and multiskilled planners with holistic transferable skills. Measures 5, 6, and 7 do the same in the buildings sector. Measures 8-16 are traditionally lower-paid and undervalued positions, especially in the natural and working lands sector, but a collective effort has been and will continue to be made to elevate the importance of this work and the wages paid in this sector. Raising public awareness of the importance of these jobs will be a critical component of outreach to ensure wages in the NWL and AFOLU sectors meet, at minimum, prevailing wage. The positions created through this proposal such as field technicians for Measures 14 and 16, waste management specialists for Measures 11, 13, and 15, and community organizers for Measures 9 and 10 will follow this trend and be recruited at higher levels than have been historically provided. As Hawai'i expands efforts to increase good green jobs, the positions supporting and recruited through this proposal will have the opportunity to take on leadership roles. All construction activities will be subject to prevailing wage requirements as determined by the U.S. Department of Labor under Davis-Bacon Related Acts (42 USC §7614) authority. All procurement contracts will include prevailing wage listings.

The Coalition plans to leverage work from the existing [Good Jobs Hawai'i](#) (GJHI) program, which is a \$35 million cross-sector public-private workforce development initiative led by Hawai'i leaders, aimed to provide skills training and job placement assistance for high-demand, well-paying positions in four of Hawai'i's growing industries: healthcare, information technology, clean energy, and skilled trades, and creative media. GJHI operates as a coalition led by the [University of Hawai'i Community](#)

Colleges comprising educators, businesses, and community partners collectively dedicated to preparing Hawai'i's residents for high-quality careers in Hawai'i. GJHI works by convening industry, employers seeking workers, educators, and workforce training providers in dedicated sector partnerships where priorities are identified, and employers directly inform training and education providers of their specific workforce needs. HSEO leads the clean energy and skilled trades sector under GJHI, which includes convening stakeholders through the Clean Energy Sector Partnership to facilitate the development of workforce education and training programs, pre-job experience, and job placement.

## 6. PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

### a. Past Performance and Staff Expertise

The Hawai'i Coalition is staffed with individuals from a broad range of backgrounds and expertise necessary to carry out the measures listed in this Grant application. In addition, the community partners from the non-profit and university sub-awardees, all competitively selected under an RFI fill knowledge, expertise, and capacity gaps. Team expertise by department, office, or organization is described below. Resumes for key individuals are included in the ***TeamMemberBiographies.pdf*** attachment to the application; departmental and sub-awardee capacity is described below:

**The Hawai'i State Energy Office (HSEO):** HSEO is well suited to serve as the lead applicant for the Implementation Grant, with a skilled management and staff with a track record of successfully implementing grants of this size. HSEO is established by statute (HRS 196-71) and organized with exempt positions in five functional areas: 1) Executive Office, 2) Operations, 3) Jobs and Outreach Branch, 4) Energy Efficiency & Renewable Energy (EERE), and 5) Resilience, Clean Transportation, and Analytics (RCA). The Decarbonization Program Manager (Monique Schafer, Project Lead) is in the Executive Office which oversees the work of the four branches. The Operations branch provides accounting, grants management, budgeting, procurement contracting services, personnel management, and internal tracking of programs and projects with timely status updates and metrics. Operations is also responsible for actively seeking and tracking federal funding opportunities for grants and is responsible for ensuring HSEO's compliance with state and federal regulations, with specialized knowledge of DOE programs; the Hawai'i Public Procurement Code, HRS 103D; and the Hawai'i Ethics Code, HRS Chapter 84. Since 2019, HSEO has secured \$32.4 million in federal funding, during which time it has actively managed operations and programs funded by more than 15 different federal and state sources to advance Hawai'i's clean energy transition and resiliency goals. HSEO projects include, but are not limited to, grid transformation, EE, security, and resiliency, energy rebates, vehicle assistance programs, and community-based technical assistance to empower under-served and disadvantaged communities in Hawai'i's clean energy journey. Grants and federal funds managed by HSEO include, but are not limited to:

- US DOE SEP Formula Grants (FY19 – FY24) and SEP BIL Grants – CFDA: 81.041. Contact: Henry Fowler ([henry.fowler@hq.doe.gov](mailto:henry.fowler@hq.doe.gov), 720-356-1595)
- US DOE EECBG BIL: CFDA: 81.128. Contact: Henry Fowler
- US DOE CC Energy Code Training Program: CID: GO9092 (subawarded by the University of Illinois). Contact: The Board of Trustees of the University of Illinois ([spa@illinois.edu](mailto:spa@illinois.edu))
- FEMA Advance Assistance: CFDA: 97.039 (subawarded by Hawai'i Emergency Management Agency). Contact: Kelsey Yamanaka ([kelsey.a.yamanaka@hawaii.gov](mailto:kelsey.a.yamanaka@hawaii.gov), 808-733-4300)
- US Economic Development Administration: Good Jobs Challenge: CFDA: 11.307 (subawarded by University of Hawai'i). Contact: Joshua Kaakua ([subaward@hawaii.edu](mailto:subaward@hawaii.edu))
- [Volkswagen Settlement Environmental Mitigation Fund](#)

**CCMAC:** The Climate Change Mitigation and Adaptation Commission (CCMAC) is tasked with guiding climate change mitigation and adaptation policy and action. CCMAC consists of a multi-jurisdictional effort between twenty (20) Executive state departments, committees, and counties. CCMAC's lead staff,

Leah Laramée, Climate Change Coordinator is supported by the Department of Land and Natural Resources who has been awarded and successfully implemented hundreds of millions of dollars in federal, private, and local grants. CCMAC is also supported by AmeriCorps VISTA Members and Hawai'i SeaGrant employees including outreach, project management, and grant management personnel with many years of grant management and reporting requirements. CCMAC provides policy direction, facilitation, coordination, and planning among state and county agencies, federal agencies, and other partners as appropriate. CCMAC is also responsible for identifying vulnerable people, communities, industries, ecosystems, and the potential economic ramifications of climate-related impacts.

**City and County of Honolulu (CCH):** The CCH Office of Climate Change, Sustainability, and Resiliency implements the City's Climate Action Plan. The Office recently created and operates the Better Buildings Benchmarking Program, which mandates all buildings on O'ahu over 25,000 square feet to benchmark their energy and water use annually through Energy Star Portfolio Manager. Since 2008, the Public Benefits Fund (PBF) through the Public PUC has funded the Hawai'i Energy program, with goals to help residents and businesses reduce energy consumption and emissions and help lower residents' electric bills. **CCH Department of Transportation Services (DTS):** DTS has 170 employees and four divisions responsible for Fixed Route Operations, Traffic Safety, Paratransit Operations, Traffic Management, Regional Planning, Planning Studies, and Rail Operations. The Skyline project is very similar to projects completed and in process including the 2020 King Street TPL and the Kūhiō Avenue Transit-Priority Corridor. The same City staff who advanced those projects will be key to guiding the work under this grant.

**Hawai'i County:** The Department of Research and Development (R&D) and the Hawai'i Mass Transit Agency (MTA) are experienced in procuring and operating EV fleets. R&D was the first county department to pilot a hybrid and EV fleet and has aided other departments in procuring EVs. MTA acquired five electric buses in 2022 and has one hydrogen fuel cell bus in operation with another two in procurement. The COH is also pursuing the purchase of eight battery electric buses and a battery electric storage system, which would allow for paratransit fleet vehicle charging. The Hawai'i County Solid Waste Division was established to protect, preserve, and enhance the environment by promoting the wise management of our solid waste. Acting Solid Waste Chief, Michael Kaha, has 30 years in the solid waste industry and 8 years in the recycling industry. Three additional Recycling Specialists bring experience ranging from 9-20 years. These specialists have experience with innovative materials management projects. Current programs include the Backyard Composting Program, Household Hazardous Waste Program, Reuse Program, Two Bin Program, Deposit Beverage Container Program, and Green Waste Program. Through the collective experience of the HIP, the participating organizations have the necessary experience to execute the measures.

**Maui County:** The County of Maui's Office of Innovation and Sustainability (OIS) and Office of Economic Development (OED) have extensive experience funding and managing environmental, reforestation, and sustainability grants and initiatives. OIS has worked on biochar projects in Maui and has increased its capacity to do land restoration with biochar. OIS has collaborated on the planting and seed banking of thousands of endemic and native trees and shrubs with community partners. This includes planting over 3,000 native trees in riparian zones adjacent to gulches in storm-flood-prone areas of Kula Kai (Kīhei). OIS also supports the creation of urban community food forest projects informed by Polynesian agroforestry. This expertise will provide program and project support for Measures 8-16. OIS and OED collectively manage over 200 grants representing approximately \$20 million to nonprofits, community groups, and small businesses in Maui Nui.

**Kaua'i County:** The County of Kaua'i's **Office of Economic Development (OED)** works, in partnership with the community, to create economic opportunities for the development of a healthy, stable, and balanced economy for the County of Kaua'i. OED has specialists for various sectors, including agriculture, business, energy, sustainability, tourism, and clean transportation. The County's **Planning Department**

Long-Range Planning Division manages Kaua'i County's planning initiatives, including the development of the General Plan, community plans, and related projects. This department provides years of experience in integrated land use and transportation planning inclusive of alternative transportation modes. The **Public Works** Engineering Division provides general engineering and surveying services for the Department. It also provides recommendations and technical support services to the Administration and the County Council. The **Transportation Agency** operates The Kaua'i Bus, which typically offers daily Public (Fixed Route) and Paratransit (Door-to-Door) bus services from Hanalei to Kekaha.

**UH Soil Ecology Lab:** Principal Investigator (PI) Susan Crow, Ph.D. is currently the PI of the Hawai'i Partnership for Climate-Smart Commodities, a \$40M, 5-year partnership awarded from the USDA. The partnership consists of 12 project partners and will support more than 100 agricultural producers across five islands. Co-PI Galase currently leads the Hawai'i Cattlemen's Council with experience in conservation and rangelands stewardship along with business administration. Galase represents a vast network of cattlemen including producers and processors throughout the island communities providing connections and perspective to ensure this project increases local food production and climate-smart natural and working land management. Rubens Fonseca (BS) is currently the plant manager for Maui EKO Systems handling approximately 22,000 wet tons of biosolids, 25,000 tons of yard waste, and 7,000 tons of fats, oil, and grease per year. Maui EKO produces around 16,000 cubic yards of finished product (compost) per year, primarily selling to the landscaping industry. Troy Keolanui is an experienced agriculturalist in Hawai'i and demonstrates a strong ability to coordinate activities at all levels to generate efficiency in agricultural business operations. No'eu Peralto is the Executive Director of HuiMAU and leads 'āina focused programs with a commitment to serving and uplifting our Kanaka 'Ōiwi and kama'āina (local) communities of the past, present, and future.

**Hawai'i State Library:** The Hawai'i State Public Library System has 50 public library buildings and 2 administrative buildings on 6 islands. HSPLS staff working on this project have experience in new construction, renovations, and ongoing maintenance of all these buildings. With an annual budget of \$10M, HSPLS staff work on multiple projects at once to maintain and upgrade our library spaces. The projects vary and can range from AC replacements to installation of PV systems, and most recently working with the Hawai'i Electric Company to install EV charging stations at our branches. HSPLS also relies on the expertise of the Department of Accounting and General Services for the management of building projects.

**Bikeshare Hawai'i:** The Bikeshare management team has over 22 years of direct experience and a direct role in implementing shared micro-mobility projects in Honolulu (Biki) and mobility hubs in the West Coast (Bikestation). Todd Boulanger will serve as the Project Lead and has served as the Executive Director of Bikeshare Hawai'i since 2018. Kelsey Colpitts serves as the Project Communications, Marketing, and Equity Lead, she has served as the Marketing and Communications Director at Bikeshare since 2017. Jonathan Alexander serves as the Technology and Operations Lead and has served as the Operations Manager since 2017.

**Hawai'i Public Utilities Commission (PUC) and Hawai'i Energy<sup>10</sup> (Public Benefits Fee Administrator):** Hawai'i Energy has been implementing the PUC's EE programs for the past 15 years, offering energy-reducing and cost-saving programs to thousands of Hawai'i's residents and businesses. In the 2021 program year, Hawai'i Energy delivered an estimated \$413.5 million in customer bill savings and 107,475,477 kWh in energy savings.<sup>11</sup> Hawai'i Energy has expanded its program offerings over time to better serve the state's low-income and hard-to-reach customers and provided essential workforce

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<sup>10</sup> <https://hawaiienergy.com/>

<sup>11</sup> [https://hawaiienergy.com/wp-content/uploads/ProgramYear2021\\_AnnualReport.pdf](https://hawaiienergy.com/wp-content/uploads/ProgramYear2021_AnnualReport.pdf)

development support to ensure that contractors, architects, engineers, and other professionals have the skills and knowledge to support the delivery of EE projects.

**Sustainable Coastlines (SCH):** SCH currently holds the only operational food waste composting permit through DOH in the state, and with the SCH permit writer (Jennifer Milholen), have developed the template and relationships to move forward with more. Rafael Bergstrom has been the Executive Director of SCH for almost 5 years after serving as the O'ahu Chapter Coordinator for the Surfrider Foundation for 5 years. He has spearheaded the fundraising and community meetings regarding the compost network. Rafael manages a team of 10 at SCH and continues to grow the organization (in 3.5 years has expanded staff from 2 to 10 and quadrupled the operating budget). Rafael will be responsible for overseeing the network manager and partnership development for this grant.

**Recycle Hawai'i (RH)** RH brings its experience working with the public, as well as federal, state, and county agencies, to divert waste over the past 33 years. This experience includes the design, planning, development, and operation of groundbreaking projects. RH has facilitated the diversion of millions of tons of materials from Hawai'i Island landfills, primarily for redistribution to residents in need. On the state level, RH helped establish the Hi-5, used motor oil, electronic waste, and container glass recycling programs. On the federal level, RH is a current recipient of a NOAA BWET grant, serving as a fiscal sponsor for Na Wa'a Mauo, a STEM research and education project. RH was also recently awarded an EPA REO grant worth \$1.56M that will fund a collaboration with the Ka'ū Global Learning Lab aimed at increasing community participation in composting and clean stream collection programs. RH's long-term commitment and ongoing community engagement lay the foundation for the scope of work described in Measure 9.

**E kūpaku ka 'āina (EKKA):** EKKA is a Maui-based 501(c)(3) nonprofit whose mission is to restore severely degraded lands. EKKA's work in habitat restoration and traditional cultural landscape has spanned 20 years. EKKA's board brings decades of expertise, including Anna Palomino, recognized for her work in native and rare plant species recovery, and Deborah Ward, a retired UH agriculture extension agent. Both Palomino and the executive director, Penny Levin, have developed detailed large-scale habitat restoration plans for public and private landowners, most recently in the Makena area of Maui in 2023, and have played advisory roles in numerous community-led restoration projects throughout Maui County. EKKA has managed over \$3 million in support of a consortium of Hawaiian crop cultivar conservation organizations, including Lyon Arboretum HRPP lab, Maui Nui Botanical Gardens, Moloka'i Demonstration Farm, and Amy Greenwell Ethnobotanical Gardens, among other entities. Levin brings 40 years of experience in tropical agriculture, indigenous foods, community-based forest conservation, and habitat restoration, both internationally and locally, to the project. For over a decade, she has mentored at-risk youth on Maui and continues to teach classes in mālama 'āina, mālama 'oe (care for the land; care for yourself) at Maui Hui Mālama.

**Re-Use Hawai'i:** Re-use Hawai'i currently employs 31 staff members on O'ahu. Their staff is experienced in the building industry, building materials, wood species, construction methods, and design. The self-sustaining structure of the organization has proven its success in the 17 years it has operated its Deconstruction Services Program. Re-Use Hawai'i has completed 826 deconstruction projects. Their workforce development program, in-house carpentry, and partner HNL Tool Library support their sustainability and growth abilities.