

Addressing Climate Change for Island-Wide Health

Public Comment Summary

County of Hawai'i Draft General Plan 2045

The public comment period for the Draft General Plan 2045 was held from September 18, 2023 to April 1, 2024. This comment summary contains the key themes derived from community feedback on the Addressing Climate Change for Island-Wide Health section of the draft plan.

1. Climate Change Mitigation and Adaptation Methods

There is a discussion about the challenges and impact of rising sea levels on infrastructure and some express concerns regarding the strategies proposed for climate change mitigation. There is opposition to the reliance on waste-to-energy methods or micronuclear energy, pushing back against technologies thought to be unsustainable or inappropriate for Hawai'i. Others highlight that even efforts such as electric vehicle implementation have their downsides, including increased wear on infrastructure and heavier reliance on fossil fuels for charging. The theme captures a call for innovative and practical approaches like energy recycling and taxation on visitation to address the real impact on the environment.

There is a clear distinction in comments between adaptation strategies to the current and future impacts of climate change and mitigation efforts to reduce greenhouse gas emissions. Many comments call for a focus on adaptation measures, given Hawai'i's minimal contribution to global emissions. Comments suggest there is an opportunity to improve existing climate adaptation plans with more concrete action steps. Suggestions include restoring natural buffers, retrofitting infrastructure, forest management, and incorporating resilient design standards. Issues around climate change are addressed with suggestions for adapting building and zoning regulations, limiting development in at-risk areas, and being proactive in planning strategies.

Climate change skepticism

Skepticism about climate change and government strategies suggest a divide in public opinion. Commenters challenge the severity of climate change and related policies as being based on unscientific or flawed assumptions. These comments often question the efficacy and science behind proposed climate regulations and policies, advocating for a reassessment of priorities and strategies. Several comments criticize the heavy focus on climate change mitigation, arguing that human activity has a minimal effect on global climate compared to natural solar and space weather events. There are calls for more detailed data and studies on national and state contributions to global greenhouse gas emissions, as well as on various aspects of climate change impact, such as sea temperature rise, hurricanes, and drought.

2. Economic Implications and Equity in Climate Strategies

Concerns regarding the economic implications of climate strategies, fairness, and the potential financial burden on residents are prevalent. Comments point out that the high number of tourists and their associated emissions from air travel and rental cars make it challenging for Hawai'i to reach its climate goals. There is a suggestion for restructuring how tourism functions in Hawai'i to mitigate this impact. Comments discuss the high costs associated with 'clean energy' and propose a transparent indication of how much energy costs will rise. Suggestions include

subsidized conversions of cesspools, installation of solar arrays on buildings, and measures to support low- and moderate-income (LMI) communities. The comments emphasize the need for equitable access to clean technologies and reflect a broader desire for 'equity' in climate-related changes.

Concerns about energy cost and feasibility

Many comments express apprehension about the costs and practicality of transitioning to clean forms of energy with several comparisons to California's energy costs and suggestions that renewable energy sources could be more expensive than traditional sources. Additionally, concerns are raised about Hawai'i's minor contribution to global greenhouse gas emissions, questioning the effectiveness and necessity of stringent climate mitigation policies for the state. Other comments express concerns about incorporating waste-to-energy solutions into the plan. The potential for increased greenhouse gas emissions, environmental justice issues, and cost-effectiveness are raised as significant issues.

3. Public Health and Safety

Many commenters discuss the effects of climate change, including the exacerbation of extreme weather events like hurricanes, wildfires, flooding, and sea level rise. There are calls for consulting climate experts, constructing resilient infrastructure, and considering future developments with these climate impacts in mind. Comments raise potential environmental and health risks associated with proposed energy solutions, particularly waste-to-energy and micronuclear options. The consideration of health impacts in the County's climate change strategies is viewed as crucial to the draft plan. Commenters note the desire for better management of public utilities and more specific preparedness for emergencies. Regarding transportation, comments suggest improvements to transportation infrastructure, advocating for more efficient traffic management, the creation of alternative routes, and enhancing the safety of public transport. They also emphasize the need for emergency services and facilities to be accessible and properly equipped for natural disasters and other emergencies. There is a focus on managing and preventing wildfires, with suggestions such as promoting native plants which are more fire-resistant and implementing fire risk reduction strategies around communities. The comments address both community safety and environmental conservation.

4. Renewable Energy

Comments suggest exploring a broad range of alternative renewable energy sources, such as solar, wind, and ocean-based energy like ocean thermal energy conversion (OTEC), hydrokinetics, and water-generated motors. They emphasize the importance of viable, safe, and appropriate technology for the island's unique environment. Comments outline support for innovative solutions to address climate change, including the use of geothermal, wave action technologies, solar power, and other renewables. There is also a significant interest in expanding infrastructure for electric vehicles, as well as concern over the environmental and health risks of waste-to-energy and nuclear energy proposals. The comments suggest increasing the use of alternative energy sources and reducing the carbon footprint. Several comments emphasize the need for infrastructure that supports cleaner transport options, such as electric vehicles, bicycles, and pedestrian pathways, as well as improving recycling and waste management.

Energy providers and government collaboration

A recurring theme is mistrust towards energy providers and questions about government collaboration with private and non-profit entities. Commenters question the motives behind collaboration with stakeholders, challenge the Hawai'i Electric Light Company (HELCO) monopoly and its impact on energy costs, and express concern over lack of public engagement in the decision-making process. There is a strong call for greater transparency, public inclusion, and democratic participation in determining sustainable energy solutions.

Opposition to nuclear energy

Several comments express strong opposition to the idea of micronuclear energy solutions, highlighting the risks associated with an active volcanic environment and the potential for natural disasters such as earthquakes and tsunamis. Concerns about environmental impact, safety risks, and the lack of a long-term plan for nuclear waste also contribute to the opposition, with many suggesting alternative renewable energy sources should be pursued. Concerns about nuclear waste and the contravention of Hawai'i's State Constitution are also mentioned. The objections are based on environmental, safety, and policy grounds.

5. Equitable Community Engagement Traditional Practices and Indigenous Knowledge in Climate Strategies

There is a strong sentiment among commenters for increased transparency, community involvement, and accountability. They request clarification to define 'stakeholders' as mentioned in the plan and emphasize that residents should be given more of a voice in decision-making processes. Comments express concerns about equitable climate actions and uplifting marginalized communities. Community engagement in decision-making processes, particularly involving low-and-moderate income (LMI) communities, is considered essential.

Several comments emphasize the use of public lands for the community's benefit, such as creating community gardens and ensuring that urban forestry serves everyone equally while considering the current social challenges. Some comments call for respecting and incorporating traditional practices and indigenous knowledge in climate adaptation and mitigation strategies, while ensuring consultation and proper recognition of indigenous and local contributions. Some comments express the importance of respecting and integrating local cultural practices into planning, as well as ensuring that local community voices are heard and considered in decision-making processes. There is a call for authentic engagement with and inclusion of indigenous knowledge and practices.

Resource management

Comments raise concerns about water management, flood prevention, drought mitigation, and the use of water resources in the face of climate change. Issues include the regulation and cultural use of stream diversions, the necessity of desalination plants, and concerns about rising sea levels impacting water quality. Additionally, some suggest enhancing infrastructure and water storage to cope with droughts and enhance firefighting capabilities.

6. Land Use

In regard to climate change adaptation, land use related comments indicate the necessity for clear standards, measures, and tactics. There is a call for more specific strategies related to managed retreat, use of the coastal belt, resilience against climate change, and how land use interacts with environmental justice. Comments emphasize the importance of proactive shoreline and coastal management including development restrictions, setbacks, relocation away from the shoreline, and the reimagining of the coastal/urban interface. Comments suggest the implementation of policies for tree planting, maintenance of urban street trees, use of native species, and incentives for forestry in zoned areas. The importance of increasing forest canopy, conserving forested lands and promoting tree planting in urban planning and development is stressed. Comments on this theme address the concern that protective measures for forests, wetlands, and other significant ecological zones are too restrictive or not clearly understood. The need for native species and conservation in land use planning is highlighted.

Transportation considerations

Comments call for the reduction of long commutes, support for public transportation, and changes to land use that reduce urban sprawl and promote higher density urban planning. Concerns highlight the need to address transportation as a source of emissions, incorporate bike-sharing in developments, and improve zoning regulations for parking lots and public transport incentives.

Recreation areas and open spaces

Comments suggest the creation of green spaces and the use of plants and materials to enhance environmental health and sustainability. Examples could include tire recycling to create rubber mulch for playgrounds and other products, native fire-resistant plants, urban forestation for community benefit, and planting trees in urban public land and parking lots.

7. Infrastructure Development and Resilience

Several comments address the need to improve infrastructure resilience to withstand the impact of climate-related events. Topics include situating critical facilities at higher elevations, using fire-resistant building materials, including backup generators in building design, converting cesspools, and updating building codes for greywater recycling and climate resilience. Comments show concern for encountering environmental challenges like road inundations by King Tides due to climate change, by suggesting the generation of a list of capital improvement projects and advocating for the accommodation of environmental considerations into all transportation planning. Comments mention the need for investment in resilient infrastructure such as water storage and distribution systems, addressing healthcare in relation to climate-related health risks, and the importance of up-to-date zoning and land-use planning for disaster-prone areas.

Transportation infrastructure

Several comments critique the implementation of electric vehicle (EV) infrastructure and mandates. Concerns about EVs being heavier and causing more damage to roads, the source of electricity for charging (often fossil fuels), and the idea that government should not be mandating personal purchase decisions are highlighted. Comments include the need for developing infrastructure that supports alternative forms of transportation, such as safe bike lanes, dedicated

pedestrian paths, and dual-use structures. Several comments express concerns regarding traffic management and the necessity for alternative routes to ease congestion. There are suggestions for opening Railroad for Route 130 traffic and creating alternate routes for Waikoloa.

There is a strong sentiment towards reducing emissions and promoting clean energy within the transportation sector. This includes a comprehensive plan for clean public transit like rail, paying for their own electric generation by EV owners, a climate change goal with zero emissions, and ensuring adequate charging stations. Promoting healthful transportation such as walking and riding bicycles is frequently addressed, with recommendations for infrastructure like bike lanes, routes, and the prioritization of non-auto transportation as part of roadway planning to encourage a healthy lifestyle.

Waste management and system improvement

There is repeated concern about the current state of waste management systems, specifically regarding cesspools, septic systems, and alternative waste solutions. Commenters emphasize the urgent need for island-wide subsidized conversions from cesspools, the approval of alternative septic systems by the state, and criticize the one-size-fits-all approach in waste water management, especially in shore-adjacent areas. There is also a suggestion for building codes that support grey water recycling.

Environmental Impact of Energy and Waste Products: Comments express concern over the environmental impact and disposal of hazardous materials from batteries, solar panels, and wind turbines. Additionally, the topic of nuclear waste and its proper disposal in Hawai'i is raised, with a historical reference to the State Constitution amendments and urging action against the military's handling of depleted Uranium radiation.

8. Building Code and Construction Practices

Comments suggest upgrading building codes for energy efficiency, fire resistance, climate adaptation, and sustainable materials. There is an emphasis on integrating greywater systems, hardening homes against hazards, using sustainable materials for housing construction, and promoting development that minimizes energy consumption. Recommendations include reflective roofing, R-30 insulation, reducing energy waste, green public transportation, limiting flood-prone area development, innovative septic systems, and green roofing. Preservation of the environment and consideration of social aspects in sustainability efforts are also highlighted. Several comments reflect on the integration of housing affordability with sustainable technology, advocating for less urban sprawl, more urban density, workforce housing near employment, and the incorporation of active transportation options in urban planning. The role of renewable energy and energy efficiency in public and private buildings is mentioned, with suggestions for renewable energy incentives, energy-efficient housing projects, and public reporting of energy usage to promote accountability. The community has shown interest in recycling, specifically the idea of shredding tires to give them a new life as building materials, rubber mulch, and other practical items emphasizing sustainability and innovation.

Comment	Page number (in the online Konveio platform)
Please remove any mention of possible "Micronuke" plants from the County of Hawaii General Plan. Building nuclear power plants and disposal of nuclear waste in Hawaii is prohibited by the State Constitution as amended in 1978 which I was a part of. The County of Hawaii should be taking action against the US military for its decision to leave depleted Uranium radiation in place instead of cleaning it up. Common sense says -- leaving it in place is disposal of it. Du has been used in spotting rounds for nuclear weapon training at PTA and likely other DU Weapons. I urge the County to press the military to clean up its depleted Uranium radiation nuclear waste and Pohakuloa in the center of our island.	16
Absolutely no no no nuclear power. Active volcano here. Do not even consider if here it will be a big huge mistake. No contracts no money no aloha. Absolutely not I am voting no is a constituent and I want my voice heard.	16
These should be added: Take steps to reduce construction waste. Take steps to reduce the current amount of demolition and reconstruction when one business goes belly up and another moves into the space. Encourage the use of recycled building materials. Encourage cooling of buildings by designing them properly so they don't need air conditioning, as at the Hilo downtown post office. Encourage government and private entities to set thermostats to slightly warmer temperatures. Require Arborist Advisory Committee approval before the County cuts any trees. Refrain from supporting Hu Honua. Do not support building in the Banyan Drive area, since it will be underwater in 50 years.	19
"WASTE-TO-ENERGY" Two "waste-to-energy" proposals (2008 and 2015) for Hawai'i Island were rejected, after months of divisive debate, because the island doesn't generate enough garbage to make it cost effective. And on O'ahu, taxpayers are paying penalties to H-Power because O'ahu can't generate enough waste to fulfill the contract. National Sierra Club Zero Waste Policy https://www.sierraclub.org/sites/default/Jiles/Sierra%20Club%20Zero%20Waste%20Policy%20December%202019.pdf The Sierra Club opposes incineration of all kinds. Incineration is not considered acceptable because of its adverse environmental and health effects and the destruction of materials that could be conserved while saving energy through other management methods. Incineration is a form of destructive disposal and no types of incineration (including "waste to energy" and "plastic to fuel" mislabeled as "chemical recycling") are considered recycling. While some advanced waste treatment technologies are promoted as alternative energy producing, the energy conserved by recycling and composting the source materials exceeds the amount of energy produced by these technologies by three to five times. ⁶ Furthermore, such facilities tend to be sited in disadvantaged communities, thus raising environmental justice issues... Incineration is a form of Destructive Disposal via combustion or thermal conversion/treatment, using temperatures above 100 degrees Celsius, of discarded materials into ash/slag, syngas, flue gas, fuel, or heat. Incineration includes facilities and processes that may be stationary or mobile, may recover energy from heat or power and may use single or multiple stages. Some forms of incineration may be described as resource recovery, energy recovery trash to steam, waste to energy, energy from waste, fluidized bed, catalytic cracking, biomass ¹⁵ , steam electric power plant (burning waste), pyrolysis, thermolysis, gasification, plasma arc, thermal depolymerization or refuse derived fuel. Waste Incineration Worsens Climate Change, Pollutes Environmental Justice Communities https://www.no-burn.org/100-environmental-groups-urge-rep-tonko-and-pallone-to-drop-waste-incineration-from-clean-future-act/ March 31, 2021- Over 100 environmental justice groups and environmental organizations in New York, New Jersey and around the country are demanding that Representatives Tonka (NY-20) and Pallone (NJ-06) drop "waste-to-energy" incineration from the CLEAN Future Act. The inclusion of "waste to energy" (WTE) incineration as "clean electricity" in the CLEAN Future Act of 2021 undermines the very positive environmental justice protections in the bill and will set the country back from its goals of addressing the climate crisis:	16

Burning waste is dirtier than burning fossil fuels. Per unit of electricity generated, WTE incinerators emit 3.8 times as much greenhouse gases {GHGs} (1.9 times as much fossil CO₂, 15 times as much N₂O & CH₄, and 66 times as much biogenic CO₂) as the grid average. They also emit 14 times as much NO_x and 1.3 times as much SO₂ which cause local air pollution and acid rain. Burning waste is toxic. The emissions from waste incineration have been linked to increased asthma risks, reduced lung function, and greater likelihood of hospital admissions, especially among children and people with respiratory conditions. 79% of incinerators are located in environmental justice communities: The locating of WTE facilities in these communities is a form of environmental racism. WTE adds to the cumulative burden of pollution on low-income, and Black, Brown, and Indigenous communities that causes long-term, multi-generational health impacts from toxic air pollution.	
This sentence should be deleted. Both "solutions" are environmentally unfriendly, and nuclear power is catastrophically dangerous. And proposing these sweeping changes to waste and energy policies in such a brief and casual manner makes it easy for readers to miss. NUCLEAR This information should be added: Hawai'i State Constitution, article XI, section 8 NUCLEAR ENERGY Section 8. No nuclear fission power plant shall be constructed or radioactive material disposed of in the State without the prior approval by a two-thirds vote in each house of the legislature. https://www.sierraclub.org/nuclear-free The Sierra Club remains unequivocally opposed to nuclear energy. Although nuclear plants have been in operation for less than 60 years, we now have seen three serious disasters. Tragically, it took a horrific disaster in Japan to remind the world that none of the fundamental problems with nuclear power have ever been addressed. Besides reactor safety, both nuclear proliferation and the required long-term storage of nuclear waste (which remains lethal for more than 100,000 years) make nuclear power a uniquely dangerous energy technology for humanity. Nuclear is no solution to Climate Change and every dollar spent on nuclear is one less dollar spent on truly safe, affordable and renewable energy sources. https://www.sierraclub.org/sierra/fiction-nuclear-silver-bullet The risk of nuclear energy is an easy dividing line. To opponents, names like Three Mile Island, Chernobyl, and Fukushima are all the evidence we need that a catastrophic event is unavoidable and unacceptable. For supporters, those events are a sign that disasters are few. Both are right accidents happen infrequently, and when they do occur, they are cataclysmic. The more compelling reasons we should drop the silver-bullet thinking about nuclear power are its cost and its unreliability. Since the mid-20th century, when nuclear power entered the public imagination, the belief has been that energy is 'free'-start the chain reaction and make electricity. It's not, and it never has been (uranium must be mined, and reactor fuel is consumable). We've reached a point where renewable sources like wind and solar power are cheaper, in part because they are quicker to come online. Lazard, a global investment bank and financial consultancy that reports annually on the "levelized cost of energy" from various sources, found that nuclear power is two to six times more costly per megawatt-hour than wind and solar (which now cost the same per megawatt-hour). The capital cost of large-scale solar and wind is at least eight times lower. The time to get new wind and solar into the electricity grid is at least half the time for a new nuclear plant; history shows that anyone who estimates the completion date for a new nuclear plant is wrong. Unlike most industries that rely heavily on science and technology, the cost of building nuclear plants is rising over time. In Silicon Valley, they call it a reverse learning curve. Supporters of nuclear power like to argue that nuclear plants are required for reliability and that they can operate all the time. This ignores nuclear's vulnerability to climate change: Severe weather, extreme temperatures, and both floods and droughts have forced nuclear plants to shut down unexpectedly in recent years. Additionally, a reactor goes off/line for routine maintenance at least every two years, which means a plant must have more total capacity to cover that maintenance routine. By comparison, wind and solar farms have much fewer operational problems. And battery backups have gotten faster than the gas power generation that nuclear plants often turn to in order to meet peak demand.	16

On behalf of the PeopleForBikes Coalition, we write to you in support of updating Hawai'i County's 2045 General Plan, specifically regarding elements of the plan relating to transportation infrastructure. We ask that you please consider our recommended updates to the 2045 General Plan. These recommendations will improve Hawai'i County's transportation sector through climate mitigation and improved road safety for all. The PeopleForBikes Coalition is the national advocacy group that works for better policies and infrastructure for bike riding. We are the sole national trade association, representing over 320 manufacturers, suppliers, and distributors of bicycle products and representing over 1.4 million riders in the U.S. - nearly 1,300 of which live in Hawai'i. We work to make bike riding a safer and more inclusive activity for everyone. The transportation sector is the highest emitter of all greenhouse gas (GHG) emissions in the U.S. at 29 percent.¹ Decarbonizing our transportation sector through fleet electrification is not enough; we need to reduce vehicle miles traveled (VMT) altogether. A recent report found that in order to meet Hawai'i's climate goal of 100% clean energy by 2045, Hawai'i must reduce VMT by encouraging walking and biking and improving public transit.² Considering that over half of all car trips made in the U.S. are three miles in distance or less, and nearly a third are one mile or less, safe, convenient, and connected infrastructure can position walking and biking as a legitimate form of transportation for these close-to-home trips to reduce VMT and the associated GHG emissions.³ Shifting these short car trips to walking and biking trips, or walking and biking to public transportation facilities, saves 13 million tons of carbon dioxide emissions annually with the potential to save more than 54 million tons with additional active transportation infrastructure.⁴ On behalf of the PeopleForBikes Coalition, we write to you in support of updating Hawai'i County's 2045 General Plan, specifically regarding elements of the plan relating to transportation infrastructure. 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Active Transportation Transforms America. 2019. ⁴ Rails to Trails Conservancy. Active Transportation Transforms America. 2019. Furthermore, a lack of safe infrastructure for walking and biking is the most commonly cited barrier for engaging in these activities. Systematic reviews have found that the overwhelming majority (84 percent) of people report that safer infrastructure would enable them to walk or ride a bike more.⁵ Complete Streets principles integrate the needs of all road users into the planning, design, construction, and rebuild of roadways so that all people, regardless of their mode of transportation, can comfortably and safely access their destination. Cities with protected and dedicated infrastructure for active transportation cut deaths of all road users nearly in half (44 percent), meaning that this infrastructure makes roads safer for everyone, even those who drive.⁶ Additionally, every \$1 invested into active transportation saves \$24 in averted medical costs due to increased road safety, more opportunities to engage in physical activity, and cleaner, healthier air.⁷ Not only do	13
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Complete Streets' principles reduce GHG emissions, unnecessary deaths, and healthcare burden, but this infrastructure generates revenue that is eight to nine times the original investment and is a significant contributor to local economies.⁸ There is clear and overwhelming evidence in support of active transportation infrastructure. Based upon this evidence, PeopleForBikes recommends that the Hawai'i 2045 General Plan: • Includes all modes of active transportation, along with a realistic schedule and plan for implementation within the Hawai'i bikeway plan. • Centrally positions the construction of active transportation infrastructure into climate mitigation policies for the transportation sector. • Integrates Complete Streets principles and the explicit inclusion of active transportation infrastructure into new road construction and development projects. • Prioritizes CIP investments for the repaving, rehabilitation, and reconstruction of roadways to focus on the value of active transportation facilities and safety. • Requires Hawai'i County to transparently consult other agencies and the public when making decisions about the inclusion of Complete Streets principles and active transportation facilities in repaving, rehabilitation, reconstruction, and new-build projects. These recommendations can help strengthen Hawai'i County's 2045 General Plan to meet the needs of all Hawai'ians and contribute to healthy, thriving communities. We urge you to please consider our recommended updates to the 2045 General Plan update because they are effective strategies to improve Hawai'i County's transportation sector.	
Climate change threats p. 19 3.3 Collaborate with government, private and nonprofit agencies, and other stakeholders to monitor impacts that may be specific to Hawai'i County due to its unique exposure to climate change and sea level rise impacts. Hawai'i County needs to first and foremost collaborate with the general public. Transparency is needed on exactly how government agencies, private corporations, nonprofit agencies are involved and explain who these "stakeholders" are. The planning department should take into consideration that over 1,900 scientists from around the world have signed a declaration that there is no climate emergency. Climate change has been occurring on this planet all along driven by solar activity and cycles. https://clintel.org/wp-content/uploads/2023/08/WCD-version-081423.pdf John Coleman, the founder of the weather channel, the first meteorologist on Good Morning America in the 1970's and the winner of the Meteorologist of the Year award by the US Association for Meteorology in 1982, has spent 60 years studying the weather. He presents his view that there is no significant man-made global warming in this half-hour PowerPoint presentation. https://youtu.be/K56fms2VZTc?si=ZuTpJ-bEnNPCGOkf WASTE-TO-ENERGY Two "waste-to-energy" proposals (2008 and 2015) for Hawai'i Island were rejected after months of divisive debate. It was concluded the island doesn't generate enough garbage to make it cost effective. O'ahu taxpayers are paying penalties to H-Power because O'ahu can't generate enough waste to fulfill the contract. While some advanced waste treatment technologies are promoted as alternative energy producing, the energy conserved by recycling and composting the source materials exceeds the amount of energy produced by these technologies by three to five times. There are some "glass type" building materials that can be produced by the incineration process. Incineration is a form of Destructive Disposal via combustion or thermal conversion/treatment, using high temperatures of discarded materials into ash/slag, syngas, flue gas, fuel, or heat. Incineration includes facilities and processes that may be stationary or mobile, may recover energy from heat or power and may use single or multiple stages. Some forms of incineration may be described as resource recovery, energy recovery, trash to steam, waste to energy, energy from waste, fluidized bed, catalytic cracking, biomass¹⁵, steam electric power plant (burning waste), pyrolysis, thermolysis, gasification, plasma arc, thermal depolymerization or refuse derived fuel.	20

Some suggested solutions are environmentally unfriendly, and nuclear power is catastrophically dangerous. Potential of micro nuclear was mentioned on page 15. Hawaii State Constitution, article XI, section 8 NUCLEAR ENERGY Section 8. No nuclear fission power plant shall be constructed or radioactive material disposed of in the State without the prior approval by a two-thirds vote in each house of the legislature. We live on an active volcano with frequent earthquakes, threats of hurricanes, tsunamis and unexpected lava flows. Having a nuclear power plant on this island is a huge liability. It could be cataclysmic and there will always be the issue of storage leaks. In 2011 I experienced the 5.8 earthquake in Orange, VA. It shut down the Lake Anna Nuclear facility for almost 2 years. There are numerous other types of energy to explore, to include water generated motors that are now used in places like Pakistan and India. These kits allow existing vehicles to be fitted that use only 2% fuel consumption and 98% water. We should be looking at ways to harness ocean water for energy. The ocean thermal energy conversion, or OTEC, which uses seawater to turn solar energy into electricity or hydrokinetic energy or marine renewable energy, is a renewable power source that is harnessed from the natural movement of water, including waves, tides, and river and ocean currents. These should be considered since water surrounds the entire island.	16
A great deal of content is based on Climate Mitigation from human activity which has a minuscule effect on the earth's overall climate. Over 99% of the climate affects are driven by solar activity, cycles, and space weather. The document completely fails to mention the threat of space weather and is almost entirely focused on carbon emissions promoted by the United Nations Climate Agenda. Our Federal Government has been preparing for space weather threats for many years, yet the Hawai'i island plan lacks any reference to this even though critical infrastructure (energy, communications, transportation, and supply chain) is at risk due to increased solar radiation from our weakening magnetosphere. In 2015 the magnetosphere was down by 40% according to this Federal Doc. https://apps.dtic.mil/sti/citations/AD1040918#:~:text=The%20research%20evaluates%20the%20impacts,reversals%20and%20adverse%20space%20weather	13
I agree with the comments found at this link: https://tinyurl.com/Hawaiiplan45 Who are the "stakeholders" that are written about nearly 50 times in this plan and what do they have stake in?	18
After looking over most of the "Draft Review" I am concerned about the information on climate mitigation. There is no acknowledgement of how much the military bases contribute to the toxic pollution on all of the Hawaii islands let alone all of the US bases (over 1000) that are active around the world. One example is the jet fuel that has polluted Oahu's drinking water for thousands of people who live in and around that military base. This toxic leak could have been avoided. People knew of the tank leaks for years before it became public and it has cost millions and made many very sick. Then there is the live amo training on land, air and sea. Sonar use that confuse and or harm whales and marine life in the area. I could go on and on... Why isn't the MIC being figured in the total equation? And Transfer Stations around the island cutting back on hours of operations!! This only causes lazy people or people who don't have garbage pick-up or some way to transport their garbage to just go and dump it on a deserted area of land. 20 yrs ago there was a big shift to get us all to recycle, which we did, cardboard, glass, plastic and other. But that turned out to be a joke after China refused to take our garbage anymore so it has been shipped to other countries islands and dumped in the ocean. How much of an impact does that have on climate change and where are the studies for that? Why is it that Coca Cola, Nestle, spring water and soft drink companies won't go back to using glass bottles that can be recycled until technology can invent a bottle that is lite weight to ship and way better for the environment? I'm sure that they are capable (hemp comes to mind) but it would cut into their profits so they don't. Profit for these global industries is the only thing that matters, certainly not climate change. Which brings me to my last point, this whole islands plan reminds me of the plan that the World Health Org is trying to implement around the world for 2030 and this makes me very upset. There are many of us who live here and will fight back if we have to. Mahalo for your time in reading this	12

What can you folks possibly be thinking putting a micro nuclear plant here on the Big Island? I am writing to say that I am strongly opposed to this. We have so many options here on the Island for alternative energy solutions.. namely solar! Why would you also put a plant here on one of the most active volcanoes in the world?	16
We are not giving our consent to General Plan 2045 in it's current, past, or future form. We reserve all of our rights, protected by the Constitution of the United States of America, the Bill of Rights, Hawaii State Constitution and basic human rights under Natural Law. We agree with the comments found at this link: https://tinyurl.com/Hawaiiplan45 Please list examples (names) of who are the "stakeholders" that are written about nearly 50 times in this plan and what do they have stake in? Without prejudice, Physically born flesh and blood living humans that inhabit the Big Island of Hawaii.	18
"I agree with the comments found at this link: https://tinyurl.com/Hawaiiplan45 Who are the "stakeholders" that are written about nearly 50 times in this plan and what do they have stake in? South and North Hilo has no CDP. Approval must be postponed until the Hilo Community has a CDP done.	18
On the General Plan proposed for the Big Island, I wholeheartedly agree with the comments found at this link: https://tinyurl.com/Hawaiiplan45 (Direct link https://tinyurl.com/Hawaiiplandirect) There are so many things wrong with this plan that I vehemently oppose this moving forward until the many issues brought forth in the comments above can be resolved with public approval. Some of my big questions are as follows. Who are the "stakeholders" that are written about 47 times in this plan and what do they have stake in? Do they live on the Big Island and have they been elected to their positions by the people and for the people? It's important that people involved in general planning live here and understand the needs of local community's. Can you describe "stakeholders" and what that means? And, how do we the residents of the Big Island know they have our best interests as their top priority? I just learned about this yesterday when I had family in town, so I haven't had time to dig in deeper. But from what I can see, there are HUGE problems with this General Plan that's being fast tracked through without adequate and prior public notice. As a long time resident in Pahoa I vehemently oppose this plan as it's currently written, and from what I can gather with what's being proposed I reject this plan all together.	18
This general plan needs to be totally rejected and start over! It is insulting that this general plan never once mentions the general public having a partnership in the plan, but stakeholders are mentioned (47 times) and who are the stakeholders? And partnering with the Government (mentioned 24 times) what Government, the Federal Government? What departments and why? And partnership with private and non profits are are mentioned 20 times. What non-profits? What private agencies? "I agree with the comments found at this link: https://tinyurl.com/Hawaiiplan45 IT'S TIME FOR TOTAL TRANSPARENCY IN HAWAII GOVERNMENT AND EVERY DEPARTMENT FUNCTIONING WITHIN.	18
I agree with the comments found at this link: https://tinyurl.com/Hawaiiplan45 (Direct link https://tinyurl.com/Hawaiiplandirect) Who are the "stakeholders" that are written about 47 times in this plan, and what do they have stake in? When are you going to clean up and let residents back in to rebuild Lahaina? How can these residents have any trust in you if you haven't even begun the clean up? Why do you feel climate change is an excuse to bring in Hawaii General Plan 2045?	18

I agree with the comments found at this link below: https://tinyurl.com/Hawaiiplan45 Besides: Who are the "stakeholders" who are mentioned/written nearly 50 times in this plan and what do they have stake in? Additionally, the plan has some misconceptions not at all based on credible scientific research. To become aware of this matter, one needs to step outside of any conveniently prepared, pre-digested, and agenda-serving concepts/ guidelines. This requires courage, independence, and the willingness to do one's own studying. To create an honest draft and to make ensuing honest and adequate decisions, one needs to consider independent scientific findings, which are available, but possibly not promoted by "parties of interest". The local draft is based on the U.N.'s "Sustainable Development Goals", and therefore primarily based on the idea of a "Climate Threat", which is a computer model. There is no climate threat!! Listen to real science and scientists!! "Climate threat" is the dream of global agencies & stakeholders cloaked as U.N. Agenda 21 (21st century)/Agenda 2030/Agenda 2045, etc.. Agenda 21/Agenda 2045 is a Global Plan, but it is Implemented LOCALLY"	18
Absolutely mad to consider atomic anything on an active volcano. Not to mention the constant earthquakes of various intensity. How would this benefit anyone except with accidents and mishaps. Clearly hidden agendas disguised as benefits for only the invested interests	16
I would also like to ask: Who are the "stakeholders" listed nearly 50 times in this plan and what do they have stake in. I along with 10s of thousands of property owners have stake in property on the Island of Hawaii. We are the stake holders, yet we have not been reached out to and asked for our input on what our future plans for the Island of Hawaii are. This "stake holder" which this general plan talks about sounds to me to refer to big money globalist interests made up of individuals and groups who are financing politicians to pass agendas that benefit them, Not the actual real stake holders, we the people. We who want to preserve and protect the Island, it's unique culture, natural beauty and traditions. Those of you sitting on these boards will have to live in the future that your actions are creating. Do you want to live in that future?	18
100% NO Why would anyone want to introduce nuclear anything on a Volcanic Island, with earthquakes and tsunamis? There are so many alternative energies. This sounds like a covert plot to destroy this last bit of paradise on earth. I pray I never see the day this insanity happens.	16
1) Page 10 to 19 - Addressing Climate Change: It's very disturbing to see the County of Hawaii promoting the New World Order, Agenda 2030, World Economic Forum's Global Warming and Climate Change Agenda. The fire disaster on Maui was not a result of Climate Change. It was a carefully engineered plan (no sirens, no water, no cell service, no electricity, police roadblocks to prevent people from escaping the fire, and geoengineered weather) meant to bring about and expedite the development of a 15 minute city in Lahaina and an AI controlled system of government (track and control your movements) throughout the entire Maui County. Is this what will also be planned for Hawaii County? If not, then kindly REMOVE this chapter from the General Plan 2045 for Hawaii County. We don't want Hawaii County AI controlled and 15 minute "smart" cities should be BANNED from Hawaii County.	12
Page 20 says you're going to collaborate with the government, private agencies, nonprofits and stakeholders. Who in the world are these stakeholders and what exactly do they hold stakes in? Why doesn't it say you'll collaborate with the public and home owners?	21
Page 15 the plan mentions micronuclear as an innovation solution. This is shocking! Do you really think a nuclear answer to energy is wise on an island with an active volcano, possible hurricanes and tsunamis and constant earthquakes?	16
We concur with the analysis and direction in this section, as climate change is the existential issue of our era. However, we are concerned that the policies and actions all seem to assume that to reduce GHG emissions from transportation sector, we simply need to address motor vehicles: more EV Chargers, zero emission Mass transit, inflating tires properly, etc. What about supporting sustainable transportation options such as walking and biking that produce no or minimal emissions? Such modes are very important to marginalized communities, who often reside near town centers and may lack motor vehicles. The climate connection deserves explicit	20

mention, as it reinforces the need for more biking and walking infrastructure called for in objectives related to transportation, recreation, land use and health .	
add in after "members" supporting initiatives such as purchase of non-motorized modes of transportation, funding for additional HiBike stations and connection of trails and paths purposed for LMI Households everyday transportation needs.	17
The "magical thinking" in the above stricken text perfectly illustrates our greatest challenge to effective Climate Mitigation; that is, when our government, which is supposed to represent our best interests, recklessly embraces industrial solutions with no deep-dive research given to actual ecological benefit of these "solutions." Though the stricken text above is found in the "Opportunities" section of the table, the only "opportunity" it presents is the opportunity for profiteers to cash in on phony "green" technologies. The fact that the two examples given -- waste-to-energy and micronuclear -- are two of the most ecocidal technologies in history(!) is patent evidence of the ecological ignorance illustrated in the Draft General Plan 2045. Real solutions to our environmental catastrophe have been known and practiced for decades by regenerative farmers, indigenous practitioners, and super smart hippies. Hawaii is a hotbed for all three of these demographics. We have the knowledge on island already. Let's support our own wise ones, not invest in a boondoggle "miracle." I urge you to consult with waste and energy expert Kristine Kubat of Recycle Hawaii on the proposed waste-to-energy aspect of the stricken text above. As for the micronuclear aspect, I urge you to refer to the State Constitution, which prohibits nuclear fission in Hawaii:	16
Remove this bullet point- "Pursue innovative solutions.."	16
Add in opportunities involving in front of climate adaptation	16
Add in opportunities involving in front of climate mitigation	16
The capitalist context of our economy leads many opportunists to propose phony pie-in-the-sky "innovations" which offer silver-bullet "solutions" that are actually far more costly than real solutions and are often irreversibly damaging to the environment. The unfortunate reality is that profit is a powerful incentive in our economy, while sustainability is not at all. The green economy is rife with phony "innovations" that perpetuate the profit-incentive status quo. They require nothing other than throwing government money at techno-fixes that conveniently require no meaningful changes. As a result, "sustainability" sadly functions only as a catchword in the realm of public relations. Elected officials don't want to be seen as anti-environmentalist, or anti-innovation, so they often support these false solutions, either due to ignorance, or to garner support for perpetuating economic growth at all costs while appearing "green." When all is said and done, these government-funded false solutions routinely put us no closer to mitigating any environmental catastrophe. Often, we end up worse off. Systems thinkers recognize this particular socio-economic-PR system as one of the hugest (yet most unacknowledged) obstructions to effectively tackling the most important task humanity has ever faced: Climate Mitigation.	15
Add challenges involving in front of climate adaptation	15
Climate Change is a Globalist view...let us remain local and sincere!	18
Discouraging- I mean banning completely the use of these sunscreens	18
Every beach, hotel beach, tourist beaches, public beach must have signs or info discouraging the use of toxic sunscreens containing oxybenzone/avobenzone/homosalate/etc!! Sunscreens cause the rapid and complete bleaching of hard corals, even at extremely low concentrations. People are bringing this in- think about it, they want sun protection GUARANTEED every time they go to the beach and it's VERY important to the health of our reef- get this nasty stuff OUT!	20
suggest "and incentivize"	18
We need to add to our forest canopy. As orographic lift decreases rainfall to the aquifers, we need to cut back on drought-prone upland pasture lands and create more forests at lower elevations. This should read "conservation and promotion of increased forest planting."	16

King Tides are a well-observed phenomena and are absolutely a prime example of sea level rise. Leave climate work to trained professionals, since you are clearly not one.	14
Should say e.g., not i.e.	19
Revise to NATIVE trees/ plants. We need to seriously focus on native species. This needs to be a top priority when it comes to green infrastructure. Work with place-based nurseries to select species appropriate for unique regions.	19
This is 100% impossible. There is no such thing as "zero emissions." Even electric vehicles in Hawai'i rely on charging stations that are powered by diesel fuel.	19
How realistic is this? Where are we at with this goal, currently?	18
We NEED this! Let's see a well-thought-out plan!	17
YES! But with genuine care! DO NOT appropriate Kanaka practices or 'ike without appropriate consultation with kama'āina. Remember, not all knowledge is meant to be shared.	17
HUGE yes. We need more social sciences. But again, this is only lip service unless a solid plan is enacted. Hire Hawaiians and locals for this work!	17
Make existing homes and communities LMI. Do NOT segregate communities based on income levels.	17
I do not follow. Explain better.	17
This word is thrown around with zero actual definition.	15
No mention of how this is being protested by local people and Kānaka? The Geothermal push is extremely problematic and, as far as I know, is not offsetting our emissions in any major way.	13
Keep in mind, these airline emissions are primarily coming from tourism. There is little to no sense of true "green" tourism when this is the reality. This does not mean we cannot strive towards locally owned ecotourism opportunities, but the harsh reality is that travel here alone causes devastating impacts on our ecosystems.	13
Sorry, but what the heck does this mean? How does underdevelopment cause deforestation and biodiversity loss?	13
This is not achievable with over 9 million tourists visiting annually. If we actually want to be serious about reducing GHG emissions, we will need to restructure how tourism functions in our islands. Plane flights and rental cars leave a tremendous impact on our atmosphere and our 'āina.	12
Include a link to this plan for ease of reference.	12
Comment: A great place to start would be with County employees.	20
Any of these, but NOT stakeholders! Strike this word and concept from this document! We need to have the DWS lift the moratorium on water meters now!	18
I would suggest that micronuclear and waste to energy are problematic technologies and may not be the best examples of innovation to highlight in the plan	16
Sustainability means something different for every resident, property owner and business. Can this be defined so we know how the County Planning Department defines this?	22
The proposed General Plan is too focused on "climate mitigation" and not enough on responsible stewardship of the 'āina. Rounded to the nearest tenth of a percentage point, Hawaii is responsible for 0.0% global emissions of greenhouse gases, yet its residents are subject to some of the highest cost of living expenses for food and fuel in the country. Rather than harm lower and middle income families, Hawaii should be embracing a strategy to reduce cost and increase access to affordable fuels and foods. Even if all greenhouse gas emissions were eliminated from everyone on the island, it would have no impact on local weather or climate, let alone global weather or climate. As a result, the drive to force people, especially low and middle income people or the elderly on fixed incomes shouldn't be penalized with pricier energy and food just to meet a feel-good metric that provides no tangible benefit to the people of Hawaii.	13

The electrical grid is not sustainable; roving blackouts occur due to lack of production and so-called "green" energy wind and solar farms don't produce when the weather doesn't cooperate. Reasonable, clean power plants should be geographically dispersed around the island. Geothermal production is considered to be viable island-wide; as such, the County should explore ways to harvest geothermal energy rather than rely on a single plant in a portion of the island that is extraordinarily vulnerable to regularly occurring lava inundation. The location where energy is harnessed in the future should be identified on General Plan maps. The Big Island is running out of space for solid waste and a comprehensive strategy should be locked-in now to address this problem so that isn't deferred to 2045. Beyond identifying whether the Waikoloa landfill should be expanded or is another site or two should be considered on-island for our growing waste problem, the island should also explore producing energy from its waste through clean incineration. Advanced nations like Singapore and Denmark use incineration to eliminate the need for growing landfills while adding energy capacity to their electrical grids. Knowing that waste dumped into landfills generates methane gas while allowing other toxic chemicals to leach through our porous rocks, there should be a serious consideration of incineration in the Big Island's future and the General Plan should explore where such a facility(s) makes sense on-island. Lastly, wind and solar farms generate significant waste that modern technology cannot yet completely recycle, especially with high-energy batteries used in photovoltaic installations and electric vehicles. The Big Island needs to understand and plan for the impact of waste from these things that have a shorter lifespan than this General Plan, and identify locations to recycle and/or dispose of this new type of e-waste.	
PGV is the State's 2nd geothermal plant. The first was the State and University of Hawaii and NELHA and HELCO's FAILED Hawaii Geothermal Project-Abbot "HGP-A" well which was a miserable excuse of an experiment, the residents were exposed to deadly Hydrogen Sulfide released directly into the community for nearly 8 years and the experiment was finally shut down by Governor Ben Cayetano on Labor Day in 1989 by Emergency Proclamation.	13
My house shakes weekly from earthquakes. And my house is far away from the epicenter of all of them so far. It's a bad idea to build nuclear plants on this island. Further, there is no viable plan for storage of nuclear waste. You cannot just build and assume it will exist when you need it. Further, we have seen, with the fake missile warning, what happens when the people working in critical functions are not trained extensively, for years in the field, imbued with the catastrophe that awaits should they make a mistake. Not to mention the problems of salty air and mediocre construction we see on the Big Island. Within a couple of years of paving a road, we see bucking and ridges. Unless you are going to import from elsewhere the equipment, materials, and professionals experienced in nuclear plant construction, you are risking all we have. You think a wildfire in Maui badly hurt their economy? What do you think happens to us if there is a small nuclear incident? Do you want to make us a greater target for terrorists than we already are with PTA in the center of the island?	16
There is no sea level rise. Give one example of sea level rise. There are none. All the examples I've seen are erosion. Erosion is not sea level rise. Sea level rise should not be an issue.	14
I think parts of California beat us in that contest now.	12
Reducing reliance on fossil fuel is actually more costly and destabilizes the grid.	12
Hawaii is the only island state in the US. I recommend changing this sentence with that in mind.	12
Volcanoes, not humans, create climate change.	12
Adopt a land acquisition program with potential leaseback options for the purchase of hazard-prone locations or those with beneficial attributes for climate adaptation or mitigation. Comment: This is not something that the public will bear. This feels like collusion between corporate or wealthy land owners and Administration. This is a directive which must be taken to the public in the form of a referendum before it is placed in the General Plan. This certainly would be reason for the County Council to defer ratification of the Draft General Plan. Proposals with	21

this level of controversy should not be placed in the General Plan until they are taken to the people by referendum or, at least, the County Council.	
30. P. 17. Support the achievement of 70 percent renewable energy for the electricity sector by 2030, with 40 percent from renewables and 30 percent from efficiency, and 100 percent by 2045. Comment: The language here is misleading. If one is advocating for 70% of electricity generation from renewable energy, that is contrary to 40% of generation is from renewables and there has been a 30% gain in efficiency. Please explain the meaning of this directive. Is this merely a rationalization for failure to meet a 70% renewables goal by 2030.	18
Fire risk reduction around communities potentially limits fire spreading into upland areas, reducing fire driven forest loss. Comment: The firebreak/fuel break perimeter management around communities works both ways for the good of community and environment. Water supply to these perimeter lands must be ensured to support grazing or agriculture or community gardens and, in case of fire, the assurance of firefighting potential.	17
Pursue innovative solutions that help achieve various goals such as waste to energy and micronuclear. Comment: The traditional approach to 'Waste to Energy', the burning of waste, creates more greenhouse gas per KWh of electricity produced than does burning coal. The elimination of landfills diminishes Methane release to varying degrees depending on landfill technique, which may compensate for the combustion emissions.	17
The county needs to dramatically increase its open spaces and forested lands but preservation is a foundational part of that. Funds for tree planting and restoration of forested lands should become available via a fee on visitors here due to visitors heavy GHG footprint from air travel.	14
Comment: The State Greenhouse Gas Inventory places the greenhouse gas emissions from domestic aviation at 3.2 million tons CO2(e). 86% of passengers are visitors. This is with total domestic emissions about 13 million tons. All ground transportation accounts for 3.8MMT and stationary combustion (electricity generation) at 8MMT. However this 3.2MMT is departures only (one way) and does not include connecting flights on the itinerary but only the leg leaving Hawaii. It does not count any international flights. It accounts for minimal NOx emissions but otherwise only CO2 emissions. An averaging of results of eight aviation greenhouse gas calculators found online places the 'non-CO2' emissions warming potential at equal to the CO2 emissions and thus the total global warming GHG emissions from aviation at 2x the easily calculable CO2 emissions. Using this method Makena Coffman PhD., UHERO faculty & an author of the Hawaii State GHG Inventory, concluded that emissions from visitor aviation equaled the total of Hawaii's domestic emissions in 2019. Her method also did not include any connecting legs of an itinerary other than the Hawaii legs. Using her method but adding connecting flights brings the total global warming in CO2 equivalents to approximately 1-1/2x the State's total greenhouse gas emission. Using the IPCC endorsed factors for Non-CO2 emissions in calculating warming from aviation brings the total CO2(e) from air transport of visitors to 2x Hawaii's total domestic GHG emissions.	13
"Although Hawaii Island alone will not reverse global GHG emissions, we can lead by example and set a precedent for other island states to become more sustainable. Comment: By far, the most important example that we can set would be to set a yearly adjustable tax or fee on visitation to our islands. This fee should begin modestly but progressively increase to bring the number of visitors down dramatically over a several year period. The only practical source of such a fee is a Visitor Accommodations Tax. The current State administration has suggested a \$50/visitor fee (voluntary). This is insufficient to reduce visitation here. Whereas the appropriate placement of revenues from a Visitor's fee should be toward resilience to the challenges of Climate Change and sea level rise, in that visitor air transport emissions are greater than Hawaii's domestic emissions, the current proposal before legislature places the modest voluntary revenues received toward renovations of parks and trails and beaches.	12
Install wildlife crossings when constructing major road projects.	20
If the County has list of "approved plants" for use in landscaping subdivisions & along streets, review & update list to encourage use of native species. Include information on fire resistance.	19

Provide definition of "anchialine pools"	16
Change to read, "Conservation of forest canopy & reforestation increases the recharge of aquifers. Previously diverted streams should be restored."	16
Electric vehicle chargers are powered by fossil fuels. Are you looking at alternative options such as solar car chargers?	19
The last two bullets under "CLIMATE MITAGRATION" say: * ...'homes along the caostline are exposed to coastal hazards by sea level change' Who says that coastlines along Hawaii will become affected by 'sea level change'? There's no proof of this. However, 'climate change experts' are paid to produce fictional charts of hazardous 'sea level change' in Hawaii All this bogus 'CLIMATE MITIGATION' is a justification to pass dubious laws in support an Agenda 30's - which are manipulative plans to take control over the land and people of Hawaii. The last bullet says: * 'Wildfires with rainfall events (? doesn't make sense), hot weather and windstorms increase ecosystems and human health.' Please refrain from using the word 'WILDFIRES' because some places are intentionally attacked with high technology. The attack on Lahaina with Direct Energy Weapons and HAARP windstorms was the cause. Wildfires do not melt the aluminum wheel hubs of cars. Wildfires leave charcoal ash, and do not selectively burn around trees and incinerate everything else to white dust Please remove the entire "CLIMATE MITIGATION" as the content is not substantiated.	16
The climate will always change... we have very little impact, it's all about money and control!	12
So, does the average Hawaiian consumer receive any of the benefits of the electrical program? That is - does our electricity ever become free? Or are we all just forced to be subject to the tripling of energy costs by HELCO during evening hours, when we all get home from work and use it the most, and expected to accept it because it was deceptively re-framed in a pretty advertising campaign? I've heard the commercial on the radio. They talked about it like it was a good thing to disproportionately push the cost of electricity onto the consumer. So when do we get to make HELCO a public utility and have it work for the consumer?For example, when our tax dollars go to create these energy programs, will it reduce our cost of electricity? This is similar to the concept of investing in solar panels for myself, but on the state-level. I pay off the panels and reap the benefits of not having to pay for as much electricity. Is there any incentive like this for the people embedded in any of this? If not, I think it all has to go.	17
This is an excellent idea, because if you control the burning of waste, trapping the smoke and burning that in a cycle over and over again, then you actually will create energy and reduce waste, and prevent pollution at the same time. The most important thing here is to calculate the efficiency of the task and how much energy is gained, relative to investments in other energy sources. Being that we are on an island, however, this solution looks incredibly attractive because of the import costs for all goods to get here, and the limited space we have available for waste. Simply hire people to sort out the transfer stations and that stuff can all be burned in a device. Contact Sweden, they have the calculations, and also their own waste energy production facilities - they've done the math and can help you figure out if this is the best solution for Hawai'i. Lastly - we could potentially clean up the entire Hawaiian Archipelago of all the waste out in the ocean, and then gain some energy from it by doing waste-to-energy with it, and that would at least make it more cost effective to clean up our oceans.	16
While I think that nuclear power can definitely be done sustainably - the Big Island of Hawaii has absolutely got to be one of the worst places in the world you could choose to build a nuclear power plant, due to the high amount of seismic activity. In order to make a nuclear power plant that will not be damaged by earthquakes (which would be an environmental catastrophe, to say the least, and highly UN-sustainable), you already need a massive concrete slab to prevent it from moving at all. You've seen what happens to concrete here over time. Especially because we don't match the pH of the concrete to Hawaii's pH, which is what the Romans did to make their last so long. I think we should focus on building some roads that won't need repair for 1000s of years (still impossible to guarantee with an active volcano on the island), like they did, and if we can	16

achieve that, then maybe we would be ready to build the foundation for a micronuclear power plant.	
The goal should be based on the actual problem. The climate will always be changing and it is based on solar activity. Reducing carbon will not solve the issue, hardening our infrastructure to protect against space weather should be a top priority. There are numerous federal documents and executive orders regarding this issue, yet there is nothing in this UN template document on how to harden infrastructure against solar flares, EMPs, and total grid and communications failure. https://apps.dtic.mil/sti/citations/AD1040918#:~:text=The%20research%20evaluates%20the%20impacts,reversals%20and%20adverse%20space%20weather	17
The fact that HELCO denied installations of solar and went from \$.20 to \$.08 in reimbursement for net metering is only 2 examples wherein the private corporation that was given a 25 yr charter by our Queen Liliuokalani & has stolen our rights to control our energy costs is the worst problem! The fact that we asked them to give notifications to the residents around the geothermal plant and they refused, then refused to insure those endangered local residents with something to compensate for a disaster there, is a 'tell' of their lack of moral responsibility to our Island's residents. They are NOT the agency we should trust! The County needs an oversight agency whose head administrators should be elected by the people! The Public Utilities Commission is obviously compromised by more actions than there is space here to describe. Furthermore Civil Defense is NOT prepared, nor does it appear that want to be by the lack of organization for EmComm, coordination at the emergency shelters (Red Cross wholly unprepared and under-staffed)...roadways that are prone to landslide and flooding have not been addressed for decades! The last 2 times I was at an emergency shelter the people that had to come in were those who could not go home due to the landslide that regularly occurs at Iole in No Kohala. I know it is NOT an easy fix, but it cuts 100's of families off from the hospital and vital services...very dangerous situation. We have huge windmills that could be servicing our area IF a private public partnership could be initiated...for 4 years we have had discussions....that is all the County wants...don't let the public work on an action plan...work on a shared cost arrangement to buy the storage batteries and put them on the grounds of our local public library...We have buildings rotting here! Sell a couple that are just costing the county...and use the funds to generate energy! I can list two of them and organize a marketing plan. We have the money in real estate that was supposed to be for seniors or for youth...that is NOT happening....)	14
Who are these "stakeholders" and what are they holding stake in?!!! Why doesn't this section read "Collaborate with home owners and people who live on the Big island"? Why is the first people you'll "collaborate" with the government, private agencies?	20
We do not want disease surveillance nor insect vectors bred in labs brought to the island. Most man made diseases in recent decades are gain of function, man made using delivery systems such as vaccines and insect vectors. See how mycoplasma is linked to neurosystemic diseases. https://www.sott.net/article/155150-BioWarfare-Mycoplasma-The-Linking-Pathogen-in-Neurosystemic-Diseases	19
The swings in the climate are due to the weakening magnetic field due to geomagnetic excursion. This in turn causes more extreme weather and intense radiation from the sun which is a health hazard. https://apps.dtic.mil/sti/citations/AD1040918#:~:text=The%20research%20evaluates%20the%20impacts,reversals%20and%20adverse%20space%20weather	14
The more intense weather is a result of space weather, the sun drives our climate and there is nothing we can do about it. More important is how to prepare for this. See federal documents. https://apps.dtic.mil/sti/citations/AD1040918#:~:text=The%20research%20evaluates%20the%20impacts,reversals%20and%20adverse%20space%20weather	14

Where is the preparation for space weather? It has far more repercussions. https://apps.dtic.mil/sti/citations/AD1040918#:~:text=The%20research%20evaluates%20the%20impacts,reversals%20and%20adverse%20space%20weather	16
This sounds like a lot of rules and authority taking away freedoms with no sound science that there is climate danger! The meaning behind these phrases is a clear path to an authoritarian government in Hawaii! https://clintel.org/wp-content/uploads/2023/08/WCD-version-081423.pdf	16
What's changing weather patterns is the manipulation of the weather! Every since congress pass the weather modification act of 1976 they've been changing our weather! Show us the science that sea levels are endangering ANY town in the world from being underwater. https://www.fordlibrarymuseum.gov/library/document/0055/1669610.pdf	15
DO NOT PUT A NUCLEAR POWER PLANT ON BIG ISLAND! We have a volcano, we have earthquakes, and many other natural dangers. What are you thinking? TAKE THIS OUT!	16
Unbelievable! "Micronuclear"!!! Are you crazy?! DO NOT BRING A NUCLEAR POWER PLANT TO BIG ISLAND! If you're not working for the corporation, or being blackmailed to put out this plan, please wake up and smell the deceit!	16
This word is very concerning. It opens the door to take away freedoms and bring in gov. corporate contracts.	22
Again, the climate change narrative is a lie! Show us proof that Hilo will be underwater if 10-20 years! Here is John Colman a 60 year climatologist and founder of the weather channel saying there is NO climate emergency https://youtu.be/K56fms2VZTc?si=pbv8mZ--l1-TcyLL	20
This is a lie! Show us the proof that ANY city or town in the world is in danger of sea level rising! Please wake up and understand this is about control and corporate contracts!	15
That's because there is a monopoly on electricity!	13
No, this is wrong. The best way to save energy is to use free energy which is available! You are tighten the neck around people with this unscientific nonsense. If you're telling the truth, let's see the research!	13
This is 100% a lie! Carbon is what trees breath. Without it we would all die! In the Cretaceous there was much more carbon and the plants were enormous! More carbon = more plants = thriving people! This should be taken out completely. You shouldn't be spreading lies to the people of the Big Island. Here is a geologist that shows you how much we need carbon. https://youtu.be/7vJ-Qefos8A?si=XBPjQouUZxGtKI44	13
What exactly do you want to do because of this extreme lie? How will the future of our keiki be affected? This entire part should be removed or show us the science that proves this!	12
Again, I want to see studies on this. This should be REMOVED! MIT professor, Richard Lindzen says, it is dishonest to tell people to be concerned about climate. The sea levels are NOT rising. Show me one city that is in danger of water over running it. Show me one housing insurance company that won't insure a home near the beach because it's in danger of being underwater. Here is what Professor Lindzen has to say https://youtu.be/pwvVephTIHU?si=xgEHyWrs_JspkwVu	12
I would like to see studies on this. This is not true! To say so opens the door to corrupt agencies that want certain policy changes and control. The chemical trails that are in the atmosphere are more dangerous to the earth than human activity. This statement is a lie and should be removed!	12
Global warming and cooling are natural for the earth. To make policies and changes to people's lives because of it, is not Pono. 50 Years as Meteorologist and Climatologist Professor David Dilley shows that the earth is not heating up! It's actually cooling down! https://youtu.be/sa-tlITPnM?si=4CdmzZz-XLL_gpWf	12

Government-level strategies is concerning to me. What exactly are these strategies. The gov. cares only for the contract corporations not the people so who is coming in to change things?!	12
Climate change happens everyday! To do something to mitigate it and deceitful! 1609 scientist from around the world declared there is no climate emergency! https://clintel.org/wp-content/uploads/2023/08/WCD-version-081423.pdf	11
Not only human but animal health as well. Increases in vector borne diseases from climate change is also a health concern (e.g. avian malaria vectoring hiring in elevation and killing native birds, increase in dengue, etc.)	14
Nuclear on an active volcanic island that is also subjected to potential hurricanes/tsunamis/earthquakes is a really bad idea. Learn from Fukushima. Where are you going to store the waste? https://www.bbc.com/future/article/20180608-the-search-for-safe-nuclear-waste-storage	16
There is a great deal of contrary data to warming trends, we are seeing cooling during grand solar minimum. See World Climate Declaration signed by 1904 vetted scientists. https://clintel.org/wp-content/uploads/2024/03/World-Climate-Declaration-3.pdf	15
This is not backed up by solid data and the UN has no authority on state and local governments. They fail to include numerous studies regarding the sun as the "major driver" of our climate. This entire document is a template derived from Agenda 21 to control the population and force a carbon credit system.	12
Exactly, the template provided by ICAP handed to our local gov by Davos cannot be compared to Hawaii Island.	12
Regarding shoreline/other sensitive areas, the plan should address retreat and propose alternate locations. Add language regarding where to plan for future economic activity. Call for an analysis. Possible Resolution: Call out key areas of concern. The map should show how these areas will be impacted. Integrate the climate hazards overlay.	20
How does the GP address housing affordability with the integration of clean tech and other sustainable advancements? Think about the cost of building/homeownership	18
Multimodal transportation should be mentioned or linked earlier in the document. Possible resolution: Make the link between climate change and transportation more prominent in the Climate Change section.	13
Clarify what is meant by research and applications. Possible Resolution: The intention of this policy is to further support research and related efforts in the social science fields. The County would support UH in doing more research and data collection.	17
Bring back downtown Hilo holiday lighting. And more flowering pots, high and low levels, ground level and upwards.	16
Downtown Hilo, Honokaa town, Pahoa town, and Kailua-Kona should allow for charming and tourist-attractive slow speed vehicles that can move people and shopping bags, such as a return of the sampan bus. Maybe HCCollege auto class as well as local shops could create a modern version of sampans. Also have all kinds of electric and people pedal vehicles.	19
What are the plans for downtown Hilo with rising ocean levels, another Venice?	12
Put more effective greywater systems into place and encourage homeowners to install and use them. Many of our drains could easily supplement our irrigation, but my plumbers told me it wouldn't meet the code.	14
Micronuclear aka "inherently safe nuclear" or "Gen 3+ nuclear" is the only energy production option that combines predictable large-scale output with zero carbon emissions. Between handheld devices and electric vehicles, demand is increasing beyond solar, wind, and hydro sources with the only option remaining as fossil fuels (oil-burning burning turbines). Micronuclear has the added benefit of reducing shipping of fossil fuels while surplus energy	16

production can be directed to synergistic efforts like water desalination. It's time to re-write the rules regarding nuclear power in the face of new nuclear technologies that are inherently safe and produce the requisite amount of electricity without the carbon dioxide if you truly believe that carbon dioxide is the culprit behind climate change.	
PLASTIC recycling into Lania and housing materials.	16
and wildfires are not Directed Energy Weapons. do we keep our heads in the sand?	15
AGREE 100%. Ice cores x billions of years show: Temperature rises first, then CO2 rises. AND Regenerative Agriculture puts co2 back into the soil. Watch NEED TO GROW documentary. AND our planet is NEVER in the same place form 1 days to the next. Why would the temperatures be unchanging?!?!?!?	15
This graph is small and hard to make out any of the words - need to increase the size of the graph and the axis labels and x and y labels	13
What is "underdevelopment" and how does it lead to deforestation and biodiversity loss? This is confusing and should be explained/terms defined, etc.	13
This state on Climate Mitigation is scientifically false. Rising human-produced greenhouse gases such as CO2 from burning fossil fuels DO NOT increase land, ocean or atmosphere temperatures and do not increase atmospheric CO2 or greenhouse gases. The statement here is demonstrably false. CO2 concentration in air is increased by water temperature increase, and decreased by water temperature decrease. The concentrations of all gases are inversely proportional to the temperature of the liquids the gases are in contact with. Obviously, Hawaii is surrounded by ocean water, but also water in soil, plants and rain. Henry's Law was proven around 1830 by Dr. William Henry. It is the foundation science of the multibillion dollar per year scientific industry of gas chromatography. This law was peer reviewed by Dr. John Dalton and published in the Royal Society of London. Dr John Dalton defined our standard method on atomic weights and ideal gas laws. Henry's Law applies to all gases in contact with all liquids. An increase in atmospheric concentration of a gas causes an exactly equal increase in the solubility of that gas in liquids which are in contact with the gas. In other words, an increase in CO2 emissions from using fossil fuels by vehicles, BBQ, propane stoves etc is offset by an increase in absorption of CO2 gas by water locally, dominantly surrounding ocean surface here in Hawaii, but also water wherever exposed in and on plants and water in soil, clouds, etc. The increased absorption continues until the Henry's Law equilibrium ratio is restored between concentration of CO2 gas in the water and CO2 gas in air above and in contact with the water at the specific local temperature. And vice versa: removal of CO2 by sequestration or attempts to limit emissions do not work because any gas removed in excess of the Henry's Law equilibrium ratio for that gas at the local temperature will be replace by emission of CO2 from the ocean, plants, soil until the Henry's Law equilibrium ratio is restored for the local temperature. The same law applies to all gases including water vapor, CH4 methane, N2O nitrous oxide, ammonia fertilizer, etc except the Henry's Law constant is different for each gas/liquid combination and temperature. These constants are easily referenced in online software or text books. For example: R. Sander: Compilation of Henry's law constants (version 5.0.0) for water as solvent, Atmos. Chem. Phys., 23, 10901-12440 (2023), doi:10.5194/acp-23-10901-2023 We cannot change the concentration of greenhouse gases by adding or removing greenhouse gases. This is utterly futile and wasteful. Henry's Law is a natural property that defines the physical phase-state of all gases in contact with all liquids and all life has evolved with this law. Climate always changes and Hawaii should be prepared for any climate changes which can be anticipated. But human produced greenhouse gases do not and cannot cause global warming or climate change. Therefore, the county should not waste any taxpayer funds or resources on mitigation of greenhouse gases, including building EV charging stations, carbon sequestration, reduction or suppression or taxes or credits for the purpose of suppressing use of fossil fuels or CO2 emissions. Programs for community electric grid use of solar panels and wind farms and subsidies for these should be strictly reviewed based on their increased costs to the community. They will not reduced carbon emissions or effect climate change but they will increase energy	15

cost and they will result in environmental costs due to disposal problems. CHAPTER 37 SUSTAINABILITY, CLIMATE, EQUITY, AND RESILIENCE should be reviewed and corrected.	
Rising human-produced greenhouse gases such as CO2 from burning fossil fuels DO NOT increase land, ocean or atmosphere temperatures. The statement here by Neil C Erickson Oct 3 2023 at 11:05AM is demonstrably false. CO2 concentration and water vapor concentration (the #2 and #1 "greenhouse gases" respectively) are both increased by temperature increase, which is the opposite of the statement by Neil C Erickson Oct 3 2023 at 11:05AM. Warming causes increased water vapor and CO2 gas concentration. Henry's Law was proven around 1830. This law applies to all gases in contact with all liquids. An increase in atmospheric concentration of a gas causes an exactly equal increase in the solubility of that gas in liquids which are in contact with the gas. In other words, an increase in CO2 emissions from using fossil fuels by vehicles, BBQ, propane stoves etc is offset by an increase in absorption of CO2 gas by water locally, dominantly surrounding ocean surface here in Hawaii, but also water in an on plants and water in soil, clouds, etc. The increased absorption continues until the Henry's Law equilibrium ratio is restored between concentration of CO2 gas in the water and CO2 gas in air above and in contact with the water. And vice versa: removal of CO2 by sequestration or attempts to limit emissions do not work because any gas removed in excess of the Henry's Law equilibrium ratio for that gas at the local temperature will be replace by emission of CO2 from the ocean, plants, soil until the Henry's Law equilibrium ratio is restored for the local temperature. The same law applies to all gases including water vapor, CH4 methane, N2O nitrous oxide, ammonia fertilizer, etc except the Henry's Law constant is different for each gas/liquid combination and temperature. We cannot change the concentration of greenhouse gases by adding or removing greenhouse gases. This is utterly futile and wasteful. Henry's Law is a natural property that defines the physical phase-state of all gases in contact with all liquids and all life has evolved with this law. Climate always changes and Hawaii should be prepared for any climate changes which can be anticipated. But human produced greenhouse gases do not and cannot cause global warming or climate change. Therefore, the county should not waste any taxpayer funds or resources on mitigation of greenhouse gases, including building EV charging stations, carbon sequestration, reduction or suppression or taxes or credits for the purpose of suppressing use of fossil fuels or CO2 emissions. Programs for community electric grid use of solar panels and wind farms and subsidies for these should be strictly reviewed based on their increased costs to the community. They will not reduced carbon emissions or effect climate change but they will increase energy cost and they will result in environmental costs due to disposal problems.	15
The entire climate change initiative is flawed and comes out of Davos. The sun drives the climate and earth has gone thru cycles over and over again. Of course we should conserve and build structures that stand the test of time, but we don't need or want to be surveilled by monitoring programs. Incentivizing craftsmanship and locally made goods will cut way back on import of cheap goods and put small business on a more equal playing field.	20
Investing in water storage and distribution infrastructure to manage water resources more effectively during droughts and periods of high demand. Zoning regulations and land-use planning to limit development in vulnerable coastal areas and known lava zones and promote resilient infrastructure and building design. Strengthening healthcare systems and disease surveillance to address climate-related health risks such as vector-borne diseases, waterborne illnesses, and heat-related illnesses.	16
I don't see action plans here; these are reiterated effects. This should have plans about how to adapt - - Restoring and enhancing natural coastal buffers like dunes, mangroves, and coral reefs to absorb wave energy and stabilize shorelines. - Investing in infrastructure for rainwater harvesting, wastewater recycling, and desalination to supplement freshwater supplies during droughts. - Retrofitting critical infrastructure such as roads, bridges, and buildings to withstand stronger winds and seismic activity associated with climate change. - Implementing forest management strategies to reduce wildfire risk, enhance carbon sequestration, and promote ecosystem resilience in the face of climate change. - Incorporating climate-resilient design	15

standards into constructing new buildings, airport tarmacs, roads, and utility systems to withstand higher temperatures, increased precipitation, and storm surges. - Community engagement and education programs	
1. add the word 'Mandate "public" reporting... so the mandated reporting is publicly available for everyone to access on the County website. 2. All medical facilities, office buildings (over a certain size) and RESORTS should also be required to post annual public reports on energy usage. This will hold them accountable to the residents and communities in which they function.	18
We are concerned that the policies and actions all seem to assume that to reduce GHG emissions from transportation sector, we simply need to address motor vehicles: more EV chargers, zero-emissions Mass Transit, inflating tires properly, etc. What about supporting sustainable transportation options such as walking and biking that produce no or minimal emissions? Such modes are very important to marginalized communities, who often reside near town centers and may lack motor vehicles. The climate connection deserves explicit mention, as it reinforces the need for more biking and walking infrastructure called for in objectives related to transportation, recreation, land use and health. Suggest rewording Policy 1.2 to "Prioritize and support Low- and Moderate-Income (LMI) communities through tax incentives, grants, and financial support provided to community members, supporting initiatives such as purchase of non-motorized modes of transportation, funding for additional HIBIKE stations and connection of trails and paths purposed for LMI households' everyday transportation needs."	17
Re-engineer the need for vehicles with the goal of reducing the number of county vehicles.	19
Provide assistance to homeowners to harden their homes and reduce the risk of wildfires damaging their homes.	17
Setback programs for existing structures should be implemented using incentives and restrictions triggered by proposed building modifications.	16
Adaptation should also include purposeful plans to move structures away from our shorelines to allow for reduced erosion and discharges and recovery of natural flora to protect the ocean and its ecosystem. Not only should future development be prohibited, but also existing development needs to be relocated.	14
A key objective here should be: Prioritize the accommodation of pedestrians and bicyclists as part of the planning and design of all roadway improvements so as to foster greater non-motorized forms of transit and accommodate healthy lifestyles.	19
Adequate charging stations are critical if we are to implement oil-free transportation. Yes, the costs should be passed along to the user, but the County should assure that stations are widespread and available.	19
Add geothermal here (probably first). Geothermal is "dispatchable" - meaning that it can be dialed up or down to meet momentary demand spikes or drops. This would allow Hawaii to build less renewable infrastructure to meet spikes (or nighttime windless periods). It is also relatively clean, compared to other dispatchable sources such as oil, diesel, etc.	16
Is this still true after Russia's invasion of Ukraine? I assume 'foreign' refers to non-US sources.	14
How can we ensure the community can give input? In South Kona there has been an increasing number of rockslides on Napoopoo, when this becomes a project, it would be ideal to have a community reporting and tracking tool	21
2.11 - Consider adding forestry incentives to all zoning (not only urban)	18
Consider adding the ICAP goal: 50% below 2005 emission levels by 2030 which will be an important milestone to achieve net carbon neutrality by 2045	18
It seems like there would be more traction with alignment between both of these plans	13
The 3 top goals in the ICAT are to : 1) Improve County capacity to implement climate action. 2) Reduce the County's contribution to global greenhouse gas emissions. 3) Increase the resilience	17

of County infrastructure, assets, and services to climate change impactsIt seems like our top 3 Goals in the GP and ICAT should be the same? Or is this intentional/by design?	
The lack of alignment between the organization/categorization in the ICAT and this section seems confusing to me - so just checking that it's intentional.	13
100% this is a valid objective - but not sure it makes sense as the #1 climate objective.	17
This is overboard. Implies that every inch of existing forest, wetland, floodplain, etc. should not be touched	20
Remove "of 4 feet but 2100 and 6 feet" Replace with "Based on best available information" Comment: Is the State in line with this benchmark? Its own viewer caps out at 3.2 feet.	20
Replace "shall" with "Should"	20
Add in "Government-issued" (peer reviewed?) after up-to-date Comment: Unless we specify an accepted source of studies and observations, people will counter any argument with their own independent studies	20
Add in "and installation incentives or subsidies." after service Comment: Zoning code requires Level 2 charging station(s) as part of Plan Approval review for both existing and new parking lots open to the public. A new use in an existing building w/parking lot can trigger retrofit	19
Replace "The Mass Transit Agency shall operate" with "Strive to achieve the operation of" Add in "The Mass Transit Agency by 2035"	19
Add in "County" before "Vehicle fleet"	19
Change "Implement" to "Incentivize/Encourage"	18
Change "Efficiency" to "Efficient"	18
Why the reference to "historically"?	17
Micronuclear sounds good.	16
Please read this article (or one of many others like it) : https://unlimitedhangout.com/2023/01/investigative-series/sdg7-the-impossible-energy-transformation/ Green energy is not really 'green' or 'sustainable.'	16
In addressing Climate mitigation, it was stated on page 12 that "Transportation is the primary source of emissions on Hawaii Island. Due to the rural geography of the island and the distance between urban socioeconomic hubs and residential areas, many residents have long commutes." Comment: However, this Chapter does not seem to include policies that reflect a determination to reduce long commutes in order to reduce emissions. Therefore, a primary objective of the General Plan needs to focus on adopting Priority Actions for land use that serve to reduce urban sprawl into low-density rural areas and to improve urban planning policies that serve to increase density, with appropriate infrastructure, and provide workforce housing opportunities near places of employment. Reducing sprawl will also protect the existing forest canopy in currently undeveloped regions	17
I don't understand why Objective 1 focuses upon "climate actions are equitable and uplift historically marginalized and disadvantaged communities"	17
Add in "a Transfer of Development Rights (TDR) Program for relocation and/or" after Adopt.	21
Replace [4 feet by 2100 and 5 feet] with "2 feet by 2045 and 6 feet by 2100 Replace Public with "Critical"	20
remove "future"	20
Replace New shoreline setback rules with "Increasing shoreline setbacks and relocation from the shoreline"	16
Add in "requiring, and streamlining" after Incentivizing	16
A great place to start would be with County employees.	19

So you will be mandating EVs. No, just no. It is not governments' place to mandate this type of purchase.	18
What is the plan to deal with the fact that electric vehicles are much heavier than traditional gas powered and therefore are much harder on roads and bridges? Won't the infrastructure fall apart faster, requiring repairs sooner. Where will this money come from? Won't the emissions from repairs negate (materials, shipping, machinery) any gains?	18
Explain environmental justice. What does it mean? How about "intergenerational equity"? This is all jargon that is vague and could be interpreted into law in undesirable ways. Language like this has no place in Government documents.	17
None of this addresses disposal of hazardous or toxic waste once batteries, solar panels, or wind turbines have ended their useful life. What will be done with all of that? Does any of this take into account the detrimental effects of the manufacturing of these items to begin with?	12
How does the GP support or interact with the State Mandate for the Gov's Aloha Environmental Challenge for 2045.	18
Ch 14 Art 8 bans Nuclear Energy facilities	16
OBJECTIVE 1 Ensure the County achieves the state goals set out in Chapter 225P, Hawaii Revised Statutes.	17
THIS MAKES NO SENSE. Misconstruing climate action with land use. Environmental justice or eco-justice, is a social movement to address environmental injustice, which occurs when poor or marginalized communities are harmed by hazardous waste, resource extraction, and other land uses from which they do not benefit.	17
Require periodic building code updates that incorporate...	18
That is an action, not a policy.	18
Create and use a keyless car share app to reduce the size of COH departments' fleets. PROJECT	19
Prioritize development of a keyless car share app to reduce the size of COH departments' fleets. [see: www.drivehui.com/hawaiihui for example]	19
Add: ...for each department and submit annual reports to the County Council	19
Replace with: Improve on the energy efficiency of County buildings as soon as possible and require annual reports be submitted to the County Council.	19
Prioritize planting of trees in all available public land in the County's urban areas equally.	19
...to include trees in every parking lot improvement project and...	19
3.5 Generate a list of capital improvement projects to raise portions of roads and infrastructure contained within road right-of-ways that are currently being inundated by King tides and/or will be the first to be inundated from sea level rise, before it is too late to modify them.	20
Mandate that County employees carpool rather than each taking a County vehicle to the same location.	19
Mandate that all new County vehicle replacements will be emissions free.	19
Prioritize the installation of photo-voltaic electric vehicle chargers...	19
... shall operate a zero emissions fleet as soon as possible but no later than...	19
Inflexible framework.	18
Achieve a 100 percent renewable-powered fleet and bus system as soon as possible but no later than 2045.	18
Considering both atmospheric carbon and greenhouse gas emissions as well as offsets from the local sequestration of atmospheric carbon and greenhouse gases through long-term sinks and reservoirs, a County target is hereby established to sequester more atmospheric carbon and greenhouse gases than emitted within the County as quickly as practicable, but no later than	18

2045; provided that the countywide target includes a greenhouse gas emissions limit, to be achieved no later than 2030, of at least fifty per cent below the level of the countywide greenhouse gas emissions in 2005. §225P-5 (b) The Hawaii climate change mitigation and adaptation commission shall endeavor to achieve the goals of this section. After January 1, 2020, agency plans, decisions, and strategies shall give consideration to the impact of those plans, decisions, and strategies on the State's ability to achieve the goals in this section, weighed appropriately against their primary purpose.	
Join the Blue Zone Project and create opportunities for the creation of Blue Zone community groups supporting each other along their journey towards better health	18
1.d Expand the schedule of Bike Lanes and Bike Routes on every qualified road and develop a standard for pedestrian pathways on curbside streets. Where road right-of-way widths are insufficient to provide bicycle lanes, bicycle routes, and pedestrian paths under the Code, paint bicycle and pedestrian symbols on the paved road shoulder to prioritize these forms of healthful transportation, to provide notice to drivers of motor vehicles of the presence of bicyclists and pedestrians, and to provide equal access along narrow roads to bicyclists and pedestrians with a low tech/low cost solution.	17
1.c Manage the County's fleets and buses to achieve the clean ground transportation goals defined in section 196-9(c)(10) and decarbonization goals established pursuant to HRS chapter 225P.	17
1.b Reduce emissions that cause climate change and build energy efficiencies across all sectors, including decarbonizing the transportation sector.	17
Create community gardens on under-utilized public land for everyone's benefit	17
Plant urban forests everywhere for everyone's benefit.	17
1.6 Promote, encourage and reward affordable and subsidized housing projects that are energy efficient and self-sufficient; and that use environmentally friendly and sustainable materials.	17
1.6 Promote, encourage, and reward energy self-sufficiency for everyone.	17
1.4 Promote, encourage, and reward a healthful, locally produced whole foods diet for everyone.	17
1.3 Promote, encourage, and reward the use of public transportation for everyone.	17
1.2 Promote, encourage, and reward healthful modes of transportation such as walking and riding bicycles.	17
POLICIES 1.1 Sequester more atmospheric carbon and greenhouse gases than emitted within the County as quickly as practicable, but no later than 2045; provided that the statewide target includes a greenhouse gas emissions limit, to be achieved no later than 2030, of at least fifty per cent below the level of the statewide greenhouse gas emissions in 2005.	17
the yellow mark is over blue above.... it reads: "[Proposed Amendment, replacing the proposed content with:] CLIMATE CHANGE GOAL The people of Hawai'i have declared "a climate emergency." S.C.R. 44, S.D. 1, H.D. 1, 31st Leg., Reg. Sess. (2021). To ensure our residents' right to a life-sustaining climate, the County of Hawaii adopts the goal to reduce carbon and greenhouse gas emissions now, before the damage done to the environment is irreversible, through adopting a zero carbon and greenhouse gas emissions, clean economy target and through incorporating equitable climate mitigation and adaptation strategies and priorities into all policies, programs, infrastructure, and decision making."	17
This comment was revised.	17
[Proposed Amendment, replacing the proposed content with:] CLIMATE CHANGE GOAL The people of Hawai'i have declared "a climate emergency." S.C.R. 44, S.D. 1, H.D. 1, 31st Leg., Reg. Sess. (2021). To ensure our residents' right to a life-sustaining climate, the County of Hawaii adopts the goal to reduce carbon and greenhouse gas emissions now, before the damage done to the environment is irreversible, through adopting a zero carbon and greenhouse gas emissions, clean economy target and through incorporating equitable climate mitigation and	17

adaptation strategies and priorities into all policies, programs, infrastructure, and decision making.	
[Proposed Amendment, replacing:] CLIMATE CHANGE GOAL We ensure a climate resilient island by making radical reforms that will benefit everyone by adopting a zero emissions, clean economy target through incorporating equitable climate mitigation and adaptation strategies and priorities into all policies, programs, infrastructure, and decision making. OBJECTIVE 1 Ensure the County achieves the state goals set out in Chapter 225P, Hawaii Revised Statutes. [Proposed Amendment replacing/adding:] POLICIES 1.1 Sequester more atmospheric carbon and greenhouse gases than emitted within the County as quickly as practicable, but no later than 2045; provided that the statewide target includes a greenhouse gas emissions limit, to be achieved no later than 2030, of at least fifty per cent below the level of the statewide greenhouse gas emissions in 2005. 1.2 Promote, encourage, and reward healthful modes of transportation such as walking and riding bicycles. 1.3 Promote, encourage, and reward the use of public transportation for everyone. 1.4 Discourage and decrease the use of private vehicles on our roadways. 1.5 Promote, encourage, and reward a healthful locally produced whole foods diet for everyone. 1.6 Promote, encourage, and reward energy self-sufficiency for everyone. [Proposed Amendment, replace/add:] PRIORITY ACTIONS 1.a Reduce emissions that cause climate change and build energy efficiencies across all sectors, including decarbonizing the transportation sector. 1.b Manage the County's fleets and buses to achieve the clean ground transportation goals defined in section 196-9(c)(10) and decarbonization goals established pursuant to chapter 225P. 1.c Expand the schedule of Bike Lanes and Bike Routes on every qualified road and develop a standard for pedestrian pathways on curb-less streets. 1.d Where road widths are insufficient to provide bicycle lanes, bicycle routes, and pedestrian paths under the Code, paint more bicycle and pedestrian symbols on the paved road shoulder anyway to prioritize these forms of transportation, provide notice to drivers of motor vehicles of the presence of bicyclists and pedestrians, and to provide equal access along narrow roads to bicyclists and pedestrians with a low tech/low cost solution.	17
Why isn't downzoning of coastal/shoreline lands included here? Downzoning can be effectuated on a deferred, specific date basis, exactly like the DOH Rule outlawing cesspool operation as of 2050. Downzone shoreline areas to Open effective, say, 2040 (within this G.P. Update's time horizon for measurable accomplishments), and thus all existing uses are "grandfathered in" but can't be rebuilt or expanded. In 100 years or so, the goal will be achieved in a fair and equitable manner. That would allow 15 more years of expansion, building or rebuilding, but none after that. Much like having a long-term ground lease, where the improvements are "surrendered" at the end of the lease term, so very little is attempted in the last decade of such leases.	21
Rephrase 3.8 and 3.10 to be more proactively, opportunistically posed. "Managed retreat" is a negative, minimally accommodative strategy to adapting to change. Instead, propose a new land use plan for the coastal belt in urban (including residential such as Puako) areas that re-visions a coastal interface zone that provides a more accessible, equitable use of these high social value belts, and not merely taxation revenue belts dominated by political arm twisters.	20
"Adaptation standards, measures, tactics.." not just simple "adaptation" as a fuzzy concept anyone can talk their way through to get a zoning change or special permit.	20
In this category of "education awareness" regarding motor vehicles, based on daily personal experience, I recommend adding a topic: "reducing habitual running of combustion engines while parked with windows up and A/C units running to reduce carbon footprinting," etc. This is an amazingly common, widespread problem witnessed in every large parking lot, whether public or private shopping lots.	19
If standardization of adding street trees is implemented, you will need to first call for a policy of supporting the maintenance of healthy urban street trees. What I see not being done to the almost 3miles of street trees along Ane Keohokalole Hwy. in Kona, and along Henry Street in	19

Kona, indicates that we have a long way to go in implementing a healthy street tree policy and program before we mandate more trees to be mis-managed.	
Not a policy, it's an action item.	19
In this context, this is not a "Policy." It's an action item without a reason , particularly a reason that isn't implicit in several of the above Policies as to County facilities. Delete or relocate elsewhere would be better.	18
To test this notion/commitment, let's start with forestation of Wailoa Park in Hilo (with appropriate native species). Thinking through the realities of managing such, including abuses and uses by homeless, druggies, etc. This is a mainland planning notion based on a different era of social order.	18
Why are LMI communities singled out here? Are there identified compelling reasons why THEY can't participate in the same outreach efforts by the County for everything else it does outreach for? What is the stereotyping premise being used here?	18
This should be an overall "maxim" for everything to be done per the G.P. It doesn't belong as an individual statement in this or any other particular goal. It's like saying "be nice to everyone in meetings" in every single Objective or whatever. It's clutter here.	17
New "setback rules" are wholly insufficient to deal with climate change other than minimalist retreat into the "same 'ol" crowded lands just above a minor setback increase. Instead, the Opportunity is to re-imagine, and replan, the entire coastal/urban/recreational interface "belt" (zone), especially in the urbanized/residentially-developed frontage zones. So, consider rephrasing to something like that: "Re-imagining and re-planning the shoreline interface belt to create a more accessible, more equitable, and safer interaction zone for all the residents of our island."	16
this is jargon. Please replace with understandable words for most of us.	16
Although this, like all the other points in this list, are not "Adaptations" as I have commented above, when it comes to actually listing Adaptation challenges, in this aquifer issue, I suggest stating that this challenge will require us to focus future new and replacement water well development on DEEP aquifers (recently "proven" as viable sources as reported in HLPC's recent "Water Summit" in 6/23).	15
For Hawaii island, specific planning, mitigation, repurposing of places (from urban to open designations), reconstruction of removed/displaced/destroyed structures and infrastructure elements/sections, should be one of perhaps three main action themes of the G.P. This is a "can" that should not be "kicked down the road" by saying "we'll be studying it" or the like. It should include a proactive element of reimagining/re-planning the public and private interfaces within the shoreline-inland corridor (1/2 mile depth, perhaps). An action plan without basing it upon the latter is almost useless in achieving G.P. goals and objectives overall.	15
These listed points aren't about "Adaptation." They are the impacts, or consequences, of climate change here in Hawaii. What you are trying to say here should be retitled and/or relocated. Adaptation - how we intend to adapt to these impacts/changes, should be a goal, and set of objectives, in the G.P.	15
This is misplaced. It's not a mitigation obstacle or challenge, it's a consequence.	15
ADD: "Heavy reliance on one geothermal power generation site, located on the hottest, more volatile, lava-flow prone square mile of our 4,028 sq. mile island (center of Lava Hazard Zone 1), in lieu of development of geographically dispersed additional geothermal power generation sites in the more geologically stable quadrants of our island shown by scientific studies to have production capabilities equal to those of long-established geothermal power generation sites worldwide."	15

Make EV charging universally available, reliable (very important) and free or low-cost. We are too vulnerable to climate change here to wait for "the market" to facilitate transition away from gasoline-powered cars.	19
This needs to include both infill development in urban areas where people can walk/bike to work, shopping, etc., and incorporating non-auto transportation like bikeshare in new developments.	18
It's bizarre that this is the only mention of transportation under "opportunities." We need a comprehensive plan for expanding clean public transit, including rail, to eliminate long commutes and their attendant pollution (even EVs cause pollution via tire and brake dust, etc.)	16
Create Codes that make it easier to live fully permitted off-grid.	18
Mandate installation of large scale solar arrays on all public buildings and large commercial buildings (i.e. Costco, Walmart, etc.).	18
Must include implementation funding.	18
community members as well as local community groups and non-profits.	17
Encouraging native plants that are naturally more fire resistant in and around home, businesses and developments including parks, golf courses, etc.	16
Needs a '.' period	16
Changing building codes to encourage grey water recycling. New building technology and design that separates sinks, laundry, and other grey water from black water, would have a HUGE affect on the amount of wastewater generated every day.	16
Traditional septic systems are not much better than cesspools in areas close to the shore. The State needs to be pushed harder to approve alternative solutions (even Puna style humanure composing is better than septic in near shore communities) and not push the one size fits all approach to waste water.	16
Add challenge of raising sea levels leads to salt water intrusion of fresh water sources impacts infrastructure by decreasing usable life span, forcing massive filtering and desalination to make drinking water palatable.	15
I think we need to call out "on-going" deforestation and destruction of native ecosystems not just historical.	15
Flood water catchment in more reservoirs are needed. Fire resistant building materials are a must	14
There are many alternative septic systems available for use today, they just need to be reviewed and approved by the state.	16
At the current rate of cesspool conversion it will literally never happen. We have known about this problem for decades Subsidized conversions must begin island wide as soon as possible.	16
I would also ask that in future planning near waterways like Kalanianole, consider elevating roadways that are known nene crossing areas with slightly elevated bridges so ne ne may safely waddle through instead of being hit by cars. Also, in tourist videos on arrival, please educate them that although nene look like Canadian geese that fly, they ate UNABLE to fly.	20
Electric vehicle owners should have to pay for their own electric generation. They should not be charging their vehicles on the taxpayers dime	19
Consider green roofing with plants on roofing that is not used for solar generation	18
We still need alternative routes for 130 traffic-open Railroad via eminent domain or explain to the public more clearly why it is not being done. Waikoloa also needs an alternative route for public safety.	16
Green areas/spaces are also necessary for increased oxygen creation, toxin absorption and improved community mental health	16

Critical infrastructure-incident command, fire, ambulance services, law enforcement, 911 center, power generation facilities, water facilities, postal facilities, should be at higher elevations to avoid storm surge, flooding etc . They should all be planned with thought to hurricanes and higher wind speeds. Construction of critical infrastructure buildings should include backup generators, hurricane ties, etc. Law enforcement facilities constructed in future also need to consider the fires/destruction created by rioters and use construction to decrease the possibility of law enforcement buildings being trashed.	15
Areas previously prone to drought should be expected to have worsening drought in future. Desalination plants on leeward sides of Hawaiian islands would provide additional water resources for agriculture, fire fighting and consumption.	15
In areas where there is limited access to emergency services, plan dual use structures. For example, in rebuilding Pohoiki boat ramp, design the ramp so it may also be a helicopter landing zone for emergency care. Same with the redesign in other remote areas of our island. By creating dual function landing zones, rapid emergency care is available islandwide. Instead of patients facing extremely long transports through heavier traffic (increased in the future) they can be evacuated rapidly to care they need. Perhaps the emergency helicopters could also function for police purposes as needed.	15
If there is concern re Tropical cyclones and storm surge (and tsunami risk) limit future development in flood prone areas. In coastal areas prone to floods recommend elevated homes/public buildings. Have the lowest floors in those areas be things like pavilions for local community events, dance halls, music venues, roller skating rinks, after school pavilions for teens, etc. As areas are flooded and damaged by floods, offer property owners the option to rebuild elsewhere to limit the need for future rebuilding.	15
We need to create our own plastics recycling on island instead of trying to ship plastic off island	16
We could start a tire shredding organization that would provide free rubber mulch to all playgrounds, parks and public buildings. The metal removed could be recycled separately. Also, we could create shoes, rubber mats for garages. If we could compress the product into a brick it would be a building material impervious to rain, rust, and rapid decay.	16
We need to use geothermal and wave action technologies to generate power. If PGV is problematic. Check other companies. Also, if Helco does future projects involving electricity on the dry side-underground conduits make sense to prevent another Lahaina. County Code could require underground conduits.	16
Wishful thinking.	16
Reducing consumption is the only way out of this mess.	16
What resource portfolio?	16
Innovative solutions such as reducing the amount of energy wasted for air conditioning and water, providing green and useful public transportation, and reducing the overall need for transportation. People commute too far to get to work because they can't afford to live where they work.	16
Rising sea temperatures also affect storm generation and hurricane paths.	15
Is geothermal energy no longer being developed?	16
What is micronuclear?	16
Wouldn't you include shoreline development here as well (in addition to new shoreline setback rules below)?	16
My limited understanding is that contemporary waste to energy emits significantly more GHG than burning coal. We just have to stop burning stuff, especially trees but also maybe waste.	16
Stream diversions are regulated by the State Commission on Water Resource Management so its use here is confusing. There are many ways to minimize stream flooding and soil erosion into	16

our coastal reefs. The cultural use of lo'i (a regulated stream diversion) is a pono way that also provides food. Bioswales, greenways and native forests are also ways to minimize stream flooding that also help to replenish drinking water aquifers.	
Hawai'i has more streams than rivers which also flood, and also drainage ways that flood.	15
More intense hurricanes and high winds are a result of climate change. May want to check with climate scientists on what is causing or exacerbating what. Either way, Hawaii is seeing stronger winds, higher temperatures, less rain, increasing quantity and severity of wildfires, etc.	14
Include wildfire	14
Reflective roofing and R-30 attic insulation are most effective at lowering cooling costs.	13
While it had been the practice to tie Power Purchase Agreements to benchmark crude oil prices in the past, the latest PPAs have stopped this practice. Refer to HEI or the PUC for more info.	14
Though not as large a contribution, marine transportation for people, supplies and equipment is also used.	13
Please add the U.S. estimated human contribution to climate gases, vs worldwide emissions, the proportion of State of Hawaii's current human contribution, and Hawaii County's proportion of human contribution to climate gasses.	12
Please indicate how high you are willing to increase energy costs to all County residents to support this goal. In practice, "clean" forms of energy are substantially more expensive than traditional sources. The State of California offers a good real-life example.	18
Please limit the climate section to adaptation only. The entire state of Hawaii produces only .3% of US carbon emissions. On the world stage, that translates, literally, to 0.0%. It will be counterproductive to add burdensome cost and regulations for any mitigation purposes.	12