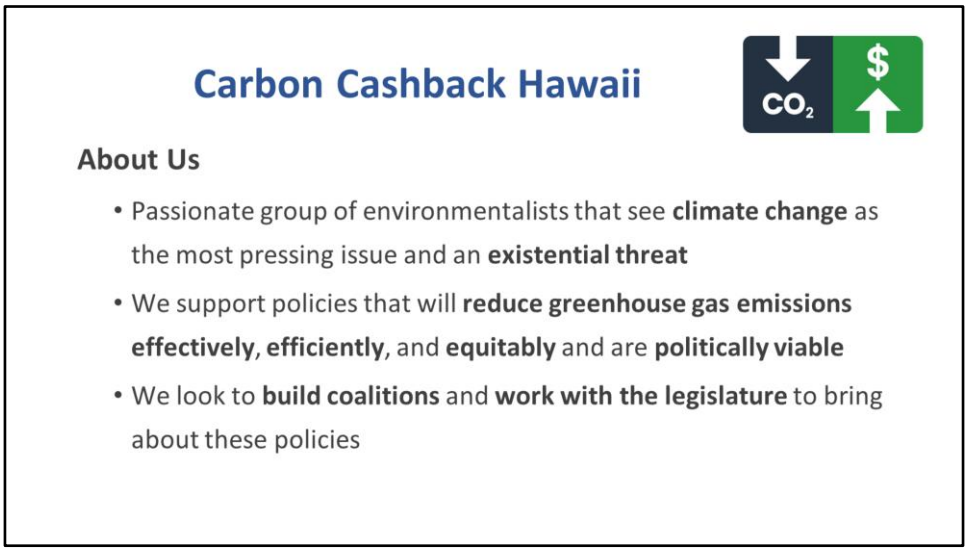
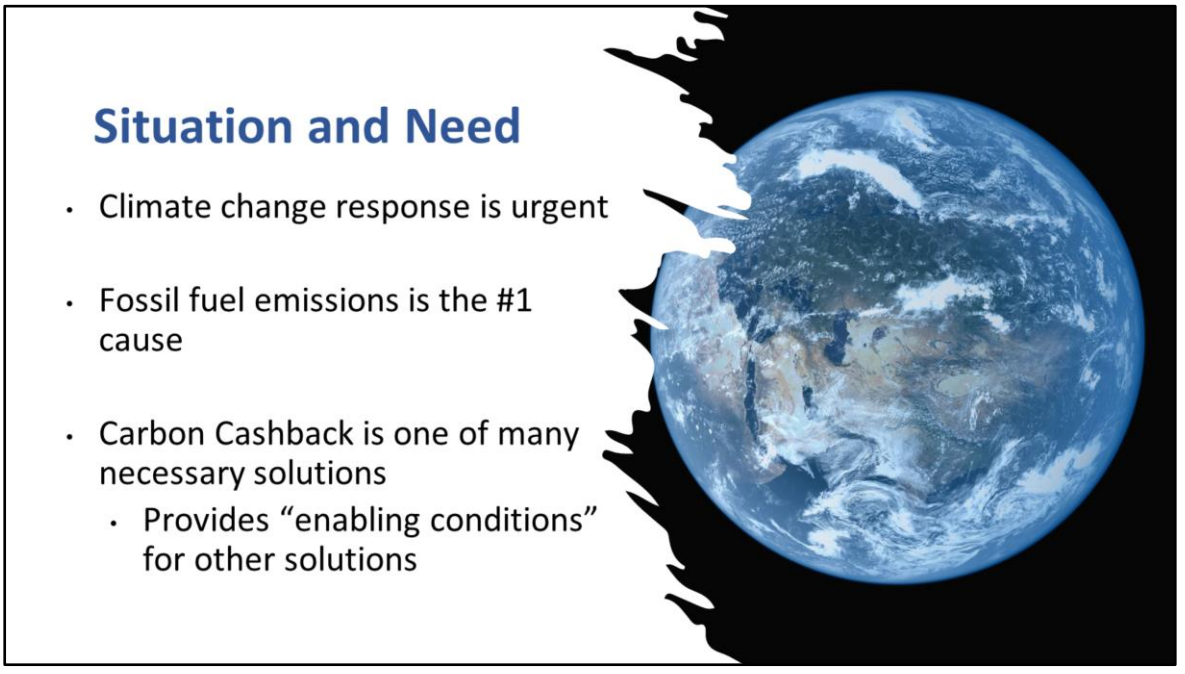


We take the most generous approach to other people as possible — appreciation, gratitude, and respect. We listen, we work to find common ground, and we endeavor to understand our own biases, which is much of why we're here today. Our approach is to build consensus, which we believe will bring enduring change. We work with the legislature to bring about climate change policies

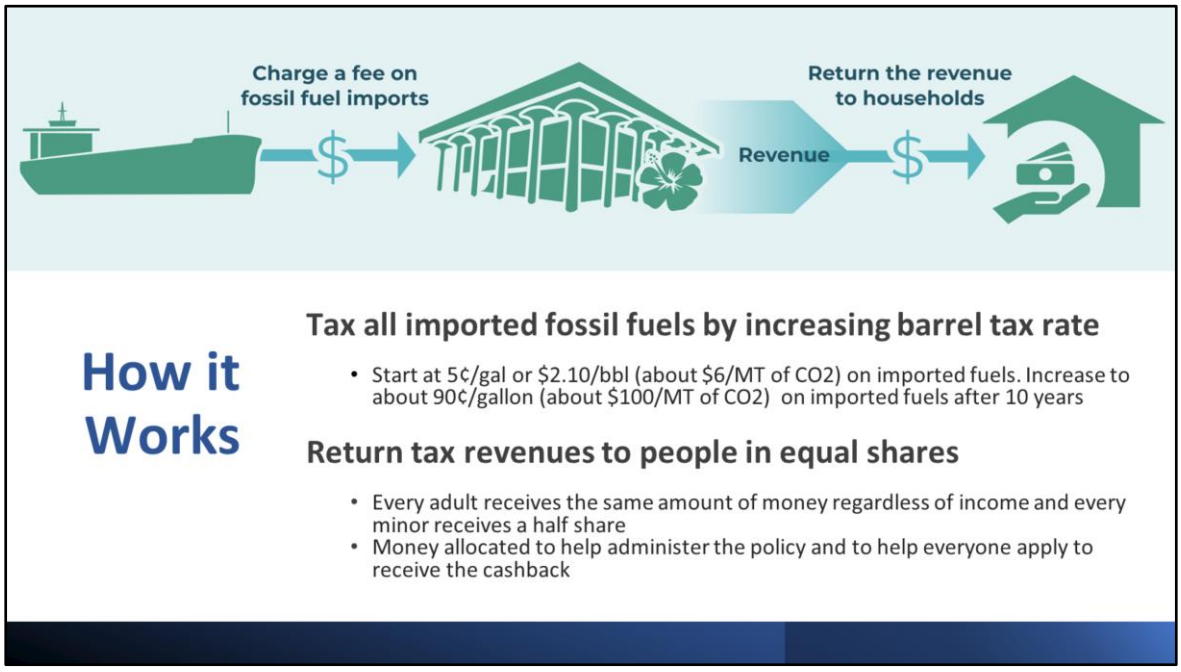


I think that all of us are here because we see climate change as an existential threat. Furthermore, I think we all agree that fossil fuel emissions are the number one cause of climate change.

I think where we differ is our preferred policies for addressing Climate Change.

The Carbon Cashback Hawaii group hopes this discussion will help people see why we believe carbon cashback should be part of the solution set of policies to address climate change.

To be clear, we believe a suite of policies are needed to address greenhouse gas emissions, and if we are going to address emissions most efficiently, equitably, and effectively, carbon cashback needs to be included in the suite of policies.



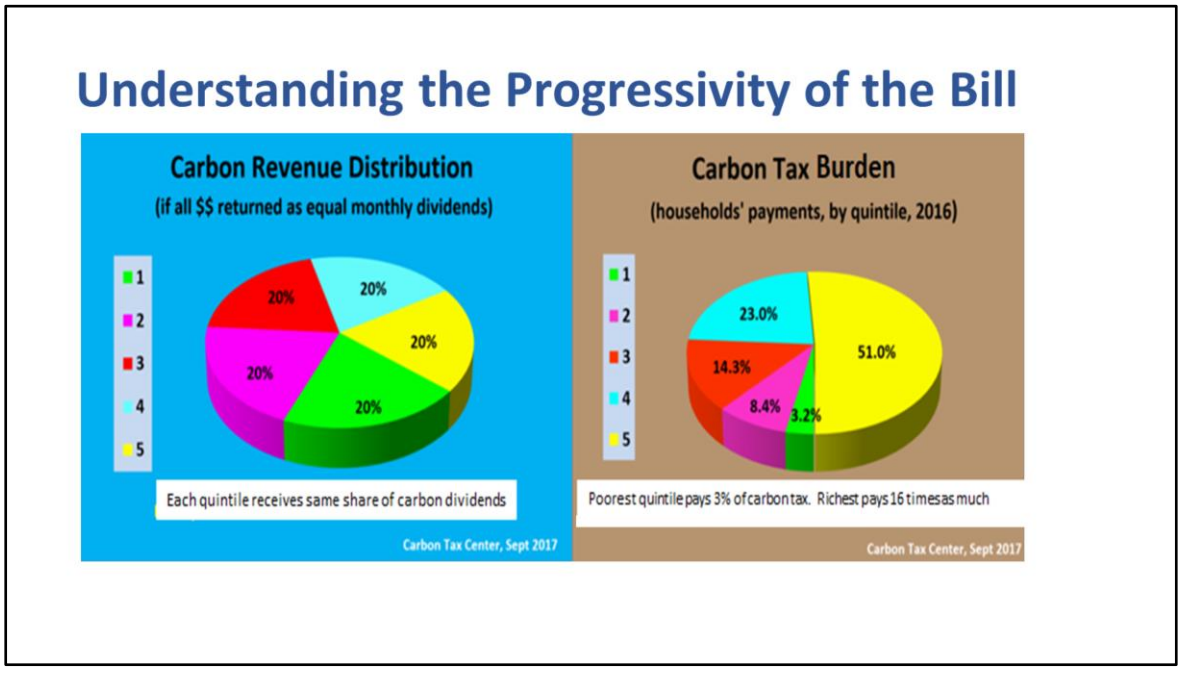
• The main purpose of the Carbon Cashbback bill is to reduce pollution caused by the use of fossil fuels while financially protecting vulnerable households.
• The bill amends the existing barrel tax by simply increasing its rate over time.
• In the first year, the fee that importers of fossil fuels must pay increases by 5¢/gal or $2.10/barrel or $6/MT of CO2. The next year the fee would increase by another 5 cents, and then for the next 8 years it would increase by 10 cents per gallon so that after 10 years, the additional fee that importers of fossil fuels need to pay would be 90 cents a gallon or about $100/MT of CO2.

Importers and fossil fuel producers would surely pass some of the fee onto consumers, leading to an increase in the price of fossil fuels. This increase in price would make renewables and clean energy technologies more attractive. As the fee continues to rise and with the expectation of this increase, the demand for fossil energy would decline leading to a reduction in CO2 emissions

• To protect vulnerable households from the resulting rise in energy costs, the policy refunds all the revenues collected by the government, less an admin fee, to people in equal shares. That is, every adult, regardless of income receives the same dividend or cashback. Since lower income households have less money, live in smaller houses,

have fewer cars, and overall use less energy, they will pay less in increased energy costs, but everyone receives the same amount so the net financial position of low income households will be better than higher income households. Therefore, this method of refunding the revenues makes the policy progressive.

You can think of this bill as combining a charge for polluting with an equal distribution refund mechanism that results in a progressive policy



Source: https://www.carbontax.org/

The following figure is designed to provide some intuition as to why carbon cashback is progressive and why lower-income households financially benefit

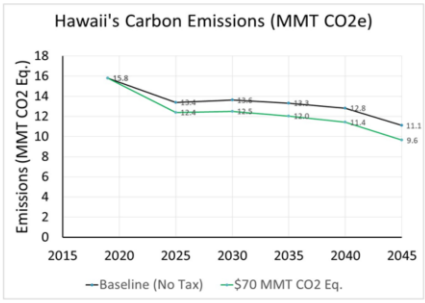
The pie charts divide the population into five groups or quintiles based on income. Each quintile represents the same number of households

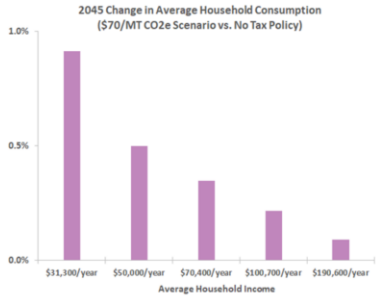
This figure compares the share of the tax burden paid by each quintile – pie chart on the right – with the share of carbon fee revenues received by each quintile – pie chart on the left. This comparison is for a national carbon fee & dividend policy, but the idea holds for Hawaii and is in fact better for Hawaii as I'll show in the next slide.

The Carbon Tax Burden pie shows that the highest income households will take on 51% of the carbon tax burden compared to the lowest income households which will take on only 3.2% of the carbon tax burden. This means that on average the highest-income people will pay about 16 times more in carbon fees passed onto consumers because they generally buy far more goods and services than low-income folks, but as the Carbon

Revenue Distribution pie shows, everyone receives the same dividend check from the government. Again, remember all the tax revenues are returned to households so the size of the pies are the same. For the lowest quintile, it pays 3.2% of the burden, but receives 20% of the revenues, or on average the lowest income household receives 6 times more than it pays. On the other end the wealthiest households receive about 40 cents for each dollar that they pay. But this is fair as it is the higher income households that are responsible for much more of the carbon pollution.

UH Studies Demonstrate Economic Benefits of Carbon Cashback





Carbon Cashback reduces Hawai'i's emissions while financially helping low- and middle-income households

Source: UHERO study for HSEO: https://energy.hawaii.gov/wp-content/uploads/2021/04/HawaiiCarbonPricingStudy_Final_Apr2021.pdf

Over the 2020-2021 time frame, the UH Economics Research Organization conducted two studies on the economic and environmental impacts of Hawaii implementing a price on carbon
These figures compare the impacts on Hawaii of continuing with business as usual, in other words no price on carbon, and a policy that imposes a fee on carbon starting at $50/MT of CO2 in 2025 and rising to $70 by 2045 in 2012$s, and then returning all revenues to Hawaii households

The upper line in the first figure shows Hawaii's CO2 emissions under a baseline without carbon cashback and the lower line shows emissions with carbon cashback in place. The majority of the drop in baseline emissions is caused by the state's renewable portfolio standard; therefore, carbon cashback has the greatest impact on emissions from the non-electric sectors

The drop in emissions is significant because the policy addresses emissions economywide. It addresses emissions from existing capital and new capital in all sectors of the economy. For example when it comes to personal travel, carbon cashback would cause people to use their existing gasoline powered vehicles less and purchase lower emitting vehicles.

The studies found this policy would reduce cumulative emissions over the 2025 to 2045 time frame by 10% from where they would be without the policy, which equates to taking over 400,000 gasoline powered cars off the roads

The bar chart shows the % change in household consumption for the five income quintiles in the study. As you can see, on average all households benefit financially thanks in large part to the visitors who pay their fair share but receive none of the cashback. Importantly, the policy is progressive with lower income HHs gaining much more than higher income ones

Recommendation #1 of 2020-2022 Tax Review Commission

Impose a carbon tax *to incentivize moving away from carbon-based fuels and adopting clean energy.*

We recommend that the majority of the ***proceeds be rebated as a cashback*** *to the residents of Hawai'i, with a disproportionate distribution to low-income households.*

Source: Tax Review Commission Study (recommendation based on UHERO study done for TRC): https://files.hawaii.gov/tax/stats/trc/docs2022/TRC_Report_2022.pdf

As a result of the UHERO study for the 2020-2022 Tax Review Commission, it's top recommendation was to "Impose…"
They went on to say: "We …

2024 HSEO Decarbonization Study Recommendation

Includes elements of Carbon Cashback

- An **increasing fee on fossil fuel** products to reduce demand.
- Payment of **dividends** directly to the residents to provide relief especially to low- and moderate-income families.

Sources:
HSEO Decarbonization Study: https://energy.hawaii.gov/wp-content/uploads/2024/01/Act-238_HSEO_Decarbonization_Report.pdf
Leah Laramee presentation at AEN/EEP 1/11/24 informational session: https://www.youtube.com/watch?v=Y9WJnL_sC7o (around the 3 hr. 9 min mark)

The recently released Hawaii State Energy Office's Decarbonization study, recommended increasing the existing fee on fossil fuels and using some of the revenues as "Payment…

At Thursday's AEN/EEP informational briefing, Leah Laramee of the State Climate Change Mitigation and Adaptation Commission gave carbon cashback as one of its top recommendation for the legislature to pass so that Hawaii can achieve its net negative emissions goal.

Advantages of Carbon Cashback Solution

- Most efficient way to reduce emissions, in part because it addresses all fossil fuels across the economy equally and accelerates transition to clean energy
- Protects most low- and middle-income families financially
- Visitors also pay their fair share of the fee that fossil fuel companies pass along; residents receive the revenues
- Politically durable
- Low administrative burden
- Demonstrates Hawai'i leading the way in the US

- **Reduces emissions efficiently: Carbon Cashback d**irectly addresses the source of the carbon emissions rather than a proxy for these emissions like fuel efficiency. Furthermore, it addresses these emissions economy-wide so that emission reductions will occur in the part of the economy where they are most cost-effective. Third, it complements and reinforces existing environmental policies. For example, the carbon fee increases the effectiveness of efficiency standards by increasing the incentive for consumers to purchase more energy efficient products
- **Good for the Pocketbook:** This policy generates an annual dividend, or 'carbon cash back' payment for every Hawaii resident to spend with no restrictions. The average low- and middle-income household will financially benefit most.
- **Captures Visitors contribution to CO2 pollution**: It acts a bit like the Green Fee as visitors would pay for any increases in energy that importers and producers pass on, and these fees would be returned to Hawaii residents
- **Politically durable** – once the policy is in place, people will be expecting their annual dividend checks so no legislator will want to take that away. This is similar to social security.
- **Little administrative burden:** Carbon Cashback leverages the existing

regulatory infrastructure, so administrative costs to implement should be small.

- Last, returning to our vision of what we need on a global scale, Hawaii implementing carbon cashback would build political will and momentum for the US to implement this effective policy just as Hawaii has influenced other states to adopt 100% renewable portfolio standards.

Carbon Cashback around the Globe

- British Columbia
  - A study by Duke University's Nicholas Institute for Energy, Environment and Sustainability found that the BC's carbon tax over the first years reduced GHG emissions from 5 to 15 percent.
  - As the carbon tax increased from $10 to $40 over time, carbon emissions per capita declined by 12 percent, twice as fast as for the nation as a whole.
  - 80% of BC households have been coming out ahead
- Sweden implemented a carbon fee in 1991 and since its inception, emissions have declined by 25% while GDP has grown by 60%
- Climate Now cited the European Union's carbon price as one of the main reasons electric vehicle penetration in Europe far exceeds that in the US

Sources:
https://citizensclimatelobby.org/blog/policy/canada-leads-the-way-on-carbon-pricing/
https://nicholasinstitute.duke.edu/content/british-columbias-revenue-neutral-carbon-tax-review-latest-grand-experiment-environmental-0
https://www.niskanencenter.org/canadas-federalist-carbon-tax/
https://www.worldbank.org/en/news/feature/2016/05/16/when-it-comes-to-emissions-sweden-has-its-cake-and-eats-it-too
https://climatenow.com/podcast/can-we-achieve-100-electric-cars-by-2030/

In 2008, BC implemented a carbon fee and dividend policy.
A study by Duke University's Nicholas Institute for Energy, Environment and Sustainability found that the British Columbia's carbon tax over the first years reduced GHG emissions from 5 to 15 percent.
British Columbia found that when the carbon tax increased from $10 to $40 per ton in 2019, carbon emissions declined by 12 percent, twice as fast as for the nation as a whole.

Another report found that 80 percent of BC households have been coming out ahead under BC's carbon fee and dividend policy.

While the Swedish economy grew by 60% since the introduction of the Swedish carbon tax in 1991, carbon emissions decreased by 25%

Carbon pricing encourages investment and innovation in clean energy solutions. The European Union's carbon price has been cited as one of the main reasons electric vehicle penetration in Europe far exceeds that in the United States (Climate Now podcast 2/22/2022).

Carbon Cashback

- Will reduce greenhouse gas emissions **effectively** and **efficiently.**
- Enables an **equitable** transition to a clean energy future.
- Allows Hawaii to **lead** the fight against climate change.