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**CITY AND COUNTY OF HONOLULU**

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June 10, 2020

Dr. Makena Coffman, Chair  
Dr. Charles Fletcher, Vice Chair  
and Members  
City and County of Honolulu Climate Change Commission  
925 Dillingham Boulevard, Suite 257  
Honolulu, Hawai'i 96817

Dear Chair Coffman, Vice Chair Fletcher, and Members:

By this letter, I am requesting the Climate Change Commission to research, develop analysis and recommendations, and provide guidance to the City and County of Honolulu (City) on carbon pricing and methods for determining the cost and value of greenhouse gas (GHG) mitigation and climate adaptation measures using the social cost of carbon (SCC), social value of mitigation action (SVMA), or other environmental and economic modeling constructs.<sup>1</sup>

As mandated by Charter, the City through the Office of Climate Change, Sustainability and Resiliency is required to track climate change science and potential impacts on City facilities, coordinate actions and policies to increase community preparedness, develop resilient infrastructure in response to the effects of climate change, and integrate sustainable and environmental values into City plans, programs, and policies.<sup>2</sup> Through various policy actions, directives, and measures, the City has committed to reducing greenhouse gas (GHG) emissions, decarbonizing O'ahu's economy, reducing energy use and expenses for City operations, and adapting to the impacts of climate change that are intensifying in magnitude and frequency.

These actions include the City's commitment to abide by the Paris Agreement and Chicago Climate Charter, developing a climate action plan that identifies a pathway to carbon neutrality by 2045 or sooner, and transforming the City and community-wide vehicle fleets to 100% renewable fuels transportation by 2035 and 2045, respectively.<sup>3</sup>

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<sup>1</sup> See Krostrup and Oman, *Macroeconomic and Financial Policies for Climate Change Mitigation: A Review of Literature*, IMF Working Paper, WP/19/185; or Paul, Howard, and Schwartz, *The Social Cost of Greenhouse Gases and State Policy: A Frequently Asked Questions Guide*, Institute for Policy Integrity, New York University School of Law, October 5, 2017.

<sup>2</sup> See Revised Charter of the City and County of Honolulu, 1973 (2017 Edition), Article VI, Chapter 1, Section 6-107 here: [http://www.honolulu.gov/rep/site/cor/Online\\_Charter\\_-\\_06.30.17.pdf](http://www.honolulu.gov/rep/site/cor/Online_Charter_-_06.30.17.pdf).

<sup>3</sup> To learn more about the City and County of Honolulu's various sustainability and resilience commitments, initiatives, and activities, including a link to our Annual Sustainability Report

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Released in May 2019, *Ola: O'ahu's Resilience Strategy* recommends 44 actions to improve affordability and economic opportunity for all residents, prepare for natural disasters in an increasingly volatile climate, bolster climate security through carbon mitigation and adaptation, and foster social cohesion and civic engagement among citizens as we tackle a myriad of challenges to build resilience and sustainability for our island home.<sup>4</sup>

The City is already measuring the carbon impacts of various policies and programs, and has developed a GHG Inventory that measures community-wide sources of GHG emissions by sector.<sup>5</sup> In addition, the City is providing its research, analysis and recommendations to create a GHG Reduction incentive mechanism (PIM) in the State of Hawai'i's Performance-Based Regulation Investigatory Proceeding before the Public Utilities Commission. The proposed GHG Reduction PIM utilizes the SCC in its cost-benefit analysis and shows significant net socioeconomic benefit in providing Hawaiian Electric with a financial incentive to chart an accelerated carbon reduction pathway in a holistic and technology-agnostic manner.<sup>6</sup>

Climate change has been called the “mother of all externalities” due to its global breadth, complexity, and severity.<sup>7</sup> In order to develop plans, programs, and policies that most effectively and expeditiously fulfill our mandate to protect O'ahu and mitigate or eliminate the root causes of global warming, it is essential to understand the all-in costs and benefits of various alternatives. Sound decision-making practices require evaluating the economics of various options using a holistic perspective that includes external costs, i.e., internalizes externalities. Scientists, economists, and policy makers use the SCC, SVMA, and other frameworks to evaluate or assign value to the costs of GHG emissions and conversely, the benefits of mitigation. While the concepts of social costs and benefits are well-understood, and a considerable amount of rigorous scientific research has gone into developing the SCC, there is still some discussion about the methodology and assumptions that underlie the approach, e.g., what discount

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(<https://www.resilientoahu.org/annual-sustainability-report>) and a listing of Policy Actions (<https://www.resilientoahu.org/policy>), please visit [resilientoahu.org](https://www.resilientoahu.org).

4 See *Ola: O'ahu Resilience Strategy* here: <https://www.resilientoahu.org/resilience-strategy> .

5 For the City and County of Honolulu's Inventory of Greenhouse Gases see here:

<https://www.resilientoahu.org/greenhouse-gas-inventory> .

6 See the City and County of Honolulu filings (and other Commission and other parties' filings) in *Hawai'i Public Utilities Commission Docket No. 2018-0088, Instituting a Proceeding to Investigate Performance-Based Regulation Proceeding*. In particular, see the City's Statement of Position filed on March 8, 2019; Initial Comprehensive Proposal filed on August 14, 2019; and Initial Comprehensive Proposal, First Update filed on January 15, 2020. See a description of the City's Utility Regulatory Engagement here: <https://www.resilientoahu.org/utility-regulatory-engagement> .

7 Richard S.J. Tol, *The Economic Effects of Climate Change*, Journal of Economic Perspectives, Volume 23, No. 2, Spring 2009, pgs. 29-51.

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rate and time frame to use, and whether or not to use a global, national, or local figure.<sup>8</sup>

The City would like to better understand the various options and considerations for utilizing values scoped at the global, national, and local levels. Further validation of the carbon valuation methods will assist the City in more effectively prioritizing necessary investments, plans, and policies going forward.

In addition, the City would like to develop a better understanding of carbon pricing options and methods that it can use to develop policies to internalize the costs of carbon. We request that the Commission conduct research and provide guidance on a range of policies options that have been adopted or recommended in Hawai'i or other jurisdictions, including but not limited to cap-and-trade schemes, voluntary carbon offset markets, carbon fee and dividend policies, and fuel or barrel taxes.

I thank you for your consideration and service, and look forward to receiving your guidance and recommendations on carbon pricing and valuation.

Sincerely,

A handwritten signature in black ink, appearing to read "Kirk Caldwell". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kirk Caldwell  
Mayor

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<sup>8</sup> See for example Matthew J. Kotchen, *Which Social Cost of Carbon? A Theoretical Perspective*, NBER Working Paper No, 22246, May 2016.