

REQUEST FOR INFORMATION: 4444

REQUEST FOR INFORMATION (RFI)



**COUNTY OF HAWAI'I
DEPARTMENT OF RESEARCH AND DEVELOPMENT
SUSTAINABLE INFRASTRUCTURE**

June 19, 2023

I. INTRODUCTION

A. Overview

The County of Hawai'i (County) is requesting information from the community and innovators on climate change solutions, specifically a net-zero emission (green hydrogen and renewable energy) economy and sustainable infrastructure development. The purpose of this RFI is to identify viable climate change mitigation and adaptation opportunities. The County can consider, opportunities related to green hydrogen, renewable energy, and sustainable infrastructure for a “post carbon economy”. Specific categories include Solid Waste and Wastewater, Renewable Energy Infrastructure, Sustainable Transportation, Quality of Life (QOL), and Everything Else.

To limit the impacts of climate change, the County is seeking input from responders. Relevant responders include private and public sectors as well as community members to provide input on re-shaping the Island towards net-zero emissions and a “post-carbon economy” by prioritizing a hydrogen-based economy and reducing the need for fossil fuels. It is the intention of the County to use the responses to this RFI to identify specific opportunities that will be awarded through future competitive processes. The County hopes to issue the first such opportunity in 2023.

The County reserves the right to incorporate in a solicitation, if issued, any recommendations presented in the response to the request for information. Participation is optional and is not required to respond to any subsequent procurement action the County may take, and neither the County nor the respondent has any obligation under this request for information.

The County is accepting RFI responses in the following categories related to hydrogen, renewable energy, and sustainable infrastructure:

1. Solid Waste and Wastewater: Energy Profile Transformation
 - Waste to Energy (no incineration)
 - Reduction in energy use and greenhouse gas production
 - Solid/water waste disposal and management that is compliant with existing statutes and rulings
 - Green hydrogen production, storage, distribution, and consumption
2. Renewable Energy Infrastructure
 - Utilizing Green Hydrogen/Hydrogen Storage, Distribution, and Consumption
 - Energy Production Technologies from renewable resources
 - Reduction of Greenhouse Gas Emissions
 - Efficiency of Buildings Systems and Technologies
 - Mitigate exposure to fossil fuel-based energy price volatility
 - Import Zero molecules for energy.
3. Sustainable Transportation
 - Green hydrogen Transportation
 - Electrification of Transportation
 - Complete Streets Infrastructure

- Mayor's Active Living Advisory Council and Vision Zero
- Supporting the local circular economy by reducing reliance on non-essential imports and promoting value added products, service and workforce opportunities.

4. Quality of life

- Affordable living via sustainable housing (i.e., building, availability, etc.) that includes affordable mobility accessibility.
- Workforce Development
- Access to Healthcare
- Multi-Hazard Mitigation that considers energy storage with unlimited shelf life
- Wellness
- Accessibility to resources, opportunities, etc.
- Accessible, affordable broadband that advances Digital Equity for all
- Food Production, Processing, Post-Consumption that is sustainable
- Invasive plant and insect Management
- Native Wildlife and Plant Conservation
- Environmental Protection and Elimination of Pollution

5. Everything Else

II. ABOUT THE COUNTY

The County is the sole local municipal government for the Island of Hawai'i, the largest of the Hawaiian Islands. 4,028 square miles in size and almost 200 miles by air from Honolulu, Hawai'i's State capital on the Island of 'Oahu. Roughly the size of Connecticut and twice the combined size of the other counties in the State of Hawai'i. The County is a place of spectacular natural beauty with deep traditional and cultural roots and embraces its stewardship role of Hawai'i Island.

The County is dedicated to 'equity,' as defined by the White House, *"the consistent and systemic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality."*¹

The following websites offer a variety of up-to-date information:

General information about the County of Hawai'i Department of Research & Development:

<https://www.rd.hawaiicounty.gov/>

2019 Integrated Solid Waste Management Plan Update:

<https://hawaiirowaste.org/site-content/uploads/County-of-Hawai%E2%80%98i-Integrated-Solid-Waste-Management-Plan-Update-20190821-DRAFT.pdf>

¹ Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government | The White House

Published January 20, 2021. Accessed August 31, 2021.

Street Design Manual: <http://records.hawaiicounty.gov/WebLink/1/doc/110655/Page3.aspx>

Transit and Multi-Modal Transportation Master Plan: <http://heleonmasterplan.com/wp-content/uploads/2018/08/180813-FINAL-FULL-REPORT-reduced.pdf>

Hawai'i Island Shared Mobility Roadmap: https://sharedusemobilitycenter.org/wp-content/uploads/2020/03/Hawaii-Island-Shared-Mobility-Roadmap-February-2020_LG.pdf

Energy Sustainability Roadmap:
https://kohalacenter.org/archive/pdf/energy/CoH_EnergySustainabilityProgram_Final.pdf

Kīlauea Recovery and Resiliency Plan:
<https://recovery.hawaiicounty.gov/home/showpublisheddocument/302781/637426801080730000>

2018 Kīlauea Disaster Economic Recovery Plan:
<https://recovery.hawaiicounty.gov/home/showpublisheddocument/302779/637426801061170000>

Comprehensive Economic Development Strategy:
https://files.hawaii.gov/dbedt/op/spb/Hawaii_Statewide_CEDS_draft_2022.pdf

General Plan:
<https://www.planning.hawaiicounty.gov/general-plan-community-planning/gp/comp>

Climate Action Plan:
<https://cohplanning.konveio.com/draft-integrated-climate-action-plan-icap-island-hawaii?document=1>

Vision Zero:
<https://www.hawaiicounty.gov/our-county/vision-zero>

Draft 2022 Hawai'i County Comprehensive Economic Development Strategy (CEDS):
https://files.hawaii.gov/dbedt/op/spb/Hawaii_Statewide_CEDS_draft_2022.pdf

Hawaii Broadband Strategic Plan:
https://broadband.hawaii.gov/wp-content/uploads/2020/11/Hawaii-BB-Plan-2020-FINAL_10-23-20_v1.1.pdf

County of Hawai'i Multi-Hazard Mitigation Plan:
http://records.hawaiicounty.gov/Weblink/1/edoc/104769/2020-05-18_HawaiiCountyHMP_PublicReviewDraft.pdf

County of Hawai'i Agriculture Development Plan:
<http://records.hawaiicounty.gov/weblink/1/doc/71346/Electronic.aspx>

Hawai'i County Food Self Sufficiency Baseline 2012:
<http://records.hawaiicounty.gov/weblink/1/doc/73723/Electronic.aspx>

Hawai'i Interagency Bio-Security Plan 2017-20207:
<https://dlnr.hawaii.gov/hisc/files/2017/02/Hawaii-Interagency-Biosecurity-Plan.pdf>

HISC and CGAPS 2025 Joint Strategy:
<https://dlnr.hawaii.gov/hisc/files/2020/05/HISC-CGAPS-2025-Joint-Strategy.pdf>

III. CATEGORIES

A. Solid Waste and Wastewater: Energy Profile Transformation

The County is currently looking at diverting methane emissions from the landfill and converting the waste into a renewable energy source. Solid waste is the third largest contributor of greenhouse gases on Hawai'i Island. This proposed energy source has high potential to be competitive with current energy options and provide the island with a sustainable alternative. The County is interested in learning more about public and private opportunities related to and support the following: (i) waste-to-energy, (ii) Reduction in energy use and greenhouse gas production, (iii) solid/water waste disposal compliance with existing statutes and rulings, and (iv) green hydrogen production. In addition to this, it is favorable if these questions are also answered:

1. What partnership opportunities are available to convert landfill methane into energy (i.e. green hydrogen)?
2. What role can private and public partners have to assist with the development of waste-to-energy diversion?

B. Renewable Energy Infrastructure

The County anticipates the increase of renewable energy infrastructure around Hawai'i Island to support hydrogen storage, technologies, and other infrastructure. The energy sector is the second largest contributor to greenhouse gas emissions on the island. The County is interested in learning more about opportunities to advance renewable energy production and storage on the island. Sub-categories include: (i) utilizing hydrogen/hydrogen storage, (ii) energy production technologies from renewable resources, (iii) greenhouse gas emissions, (iv) efficiency of buildings systems and technologies, (v) Mitigate exposure to fossil fuel-based energy price volatility, and (vi) zero molecules for energy imported. In addition to this, it is favorable if these questions are also answered:

1. How can renewable energy infrastructure be scaled across the County?
2. What role can private and public partners have to assist with the development of increasing/developing renewable energy infrastructure?
3. If applicable, how much energy/hydrogen could be produced from this opportunity?

C. Sustainable Transportation

The County has established the goal of having the entire County fleet be zero-emission by 2035. The transportation sector is the largest contributor of greenhouse gas emissions on the island, accounting for over half of all emissions. Two of the largest sources within transportation are aviation (56%) and ground transportation (36%). Currently, the County is working across departments to successfully plan this transformation, including the Mass Transit Agency. Sustainable transportation also brings up the question of mobility: How can we ensure that mobility is developed in a sustainable and equitable way? The County is interested in learning more about opportunities within (i) hydrogen transportation, (ii) electrification of transportation, (iii) complete streets infrastructure and (iv) Mayor's Active Living Advisory Council and Vision Zero. In addition to this, it is favorable if these questions are also answered:

1. How can hydrogen transportation be scaled across the County?
2. How can zero-emission transportation be made accessible to low-income families?
3. What role can private and public partners have to assist with the development of complete street infrastructure?
4. How can we reduce our importation dependence by growing sustainable transportation and other industries on the island?
5. How can we make the air and sea importation system more renewable?

D. Quality of Life

Quality of life (QOL) is a broad concept that generally describes the well-being of the community. The County is dedicated to emphasizing the importance of increasing the QOL for residents, and as sustainable development expands across the Island, it is important that sectors striving to improve QOL are also empowered. The following items within the QOL section need to be advanced for resiliency while reducing the use of fossil fuel-based energy sources, and the need to import energy molecules to advance the sustainability. The County is interested in learning more about opportunities within (i) sustainable housing, (ii) workforce development, (iii) healthcare, (iv) mental and physical wellness, (v) access to resources opportunities, (vi) broadband and digital equity, (vii) food production and sustainability and (viii) environmental protection and combating invasive species. In addition to this, it is favorable if these questions are also answered:

1. How can sustainable development increase accessibility to healthcare, resources, opportunities, etc.?
2. What workforce development opportunities can be expanded in sustainable development throughout the Island?
3. How can green design be incorporated into housing development to prepare for a post-carbon future (access to EVs, innovative building methods, community gardens, holistic planning for equitable access to services, etc.)?
4. Are there innovative and sustainable development methods that would effectively reduce the costs of housing and eliminate the financial burden of vehicle ownership on the Island?
5. How can we design our infrastructure to support native plant species?
6. How can we build place-based infrastructure that informs the resident and visitor communities of how to care for the land?

E. County Assistance

We need to know what assistance, if any, you need from the County to grow the opportunities related to hydrogen, renewable energy, sustainable infrastructure, and ultimately the reduction in greenhouse gases in the County. Your response to this RFI will shape future solicitations so please be as specific as possible in completing your response.

F. Deal Breakers and Unlikely Scenarios

At this time, the County will not consider incineration or combustion technologies. Any energy generation would also need to be price-competitive or lower than fossil-fuel-based energy, which is at: \$0.29-\$0.42 per kwh cost for electricity. The County also looks favorably upon responses that interweave equity as well as recognizing the context of climate change as a keystone in their opportunity/project.

G. “Everything Else” Category

If a response does not fit in any of the other categories, this is the place to comment. Possible examples include a program with an educational purpose, a social behavior impact study, a materials exchange, or anything else along these lines.

IV. PROPOSAL CONTENT

All responses shall be structured in a set of documents as described in the table below and further described in the sections following. A Cover Sheet and a Table of Contents must be included with each response.

We understand there may be questions in the content below you cannot answer at this time. We appreciate any and all information you can share with us before the response deadline. We are grateful for the time and energy you are expending to share your knowledge with us. On behalf of the County, thank you for investing in our future.

Please be sure to outline how federal financial assistance provided by the BIL and the Inflation Reduction Act can offset project costs.

Please use Times New Roman of 12 pt. and limit your response to one (1) page per question. Submit one (1) response per RFI category.

Content	Format
Introduction, Background and Response	Transmittal Letter Responders Description General Description Category-Specific Description Opportunities Description Resources Required Synergy County Assistance Community Impact
Signature Page	Sign and Upload Signature Page

A. TRANSMITTAL LETTER

Provide a one- to two-page transmittal letter that summarizes the respondent’s response. The transmittal letter should be in the form of a standard cover letter on official business letterhead and signed by an authorized representative.

B. RESPONDERS DESCRIPTION

Please tell us who you are or who your company is and describe your experience or your company’s experience with opportunities related to hydrogen, renewable energy, and/or sustainable infrastructure.

C. GENERAL DESCRIPTION

Please answer the following questions within the RFI:

- Please describe your specific ideal region to support the project or opportunity
- Explain how your project would complement (or impact) the regional characteristics and cultural identity of the community? Is there any existing infrastructure or projects that can be repurposed or expanded upon to increase the scale?
- What are the characteristics of the area surrounding the site? Describe any environmental or ecological impacts, both positive and negative.
- Describe the environmental impact of your project over its full life cycle.
- Describe how the project or idea is supported by or consistent with local or regional trends, initiatives, or policies.
- What known obstacles would be faced related to this project or opportunity?
- What are the equity impacts of the project or opportunity?
- What, if any, assistance would be needed from the County to grow proposed technologies and processes?
- How would your project reduce greenhouse gas emissions on the island?
- How will federal financial assistance provided by the BIL and the Inflation Reduction Act offset project costs?

D. CATEGORY-SPECIFIC DESCRIPTION

Please communicate any category-specific answers or descriptions here (Refer to Section III: Categories).

E. OPPORTUNITIES DESCRIPTION

Please communicate you or your organization's work in developing a post-carbon future. If relevant, describe your previous experience in developing/utilizing/supporting opportunities related to hydrogen, renewable energy, and/or sustainable infrastructure. If your initiative has been successful elsewhere, please tell us where and provide contact information for any references available.

F. RESOURCES REQUIRED

- What resources would need to be accessed in order to complete the vision/initiative described in your respective category?
- Do you have unique resource, infrastructure, site, or support needs?

G. SYNERGY

What other organizations would create synergy for proposed opportunities related to hydrogen, renewable energy, and/or sustainable infrastructure, or for the RFI in general?

H. COUNTY ASSISTANCE

What, if any, assistance do you need from the County to advance your project/program on Hawai'i Island?

I. COMMUNITY IMPACT

- How will the community benefit from having this opportunity in Hawai'i County?
- Will it create jobs?
- How many (approximate) and what type of jobs (general)?
- Is there a public art or public education component?
- Are these initiatives equitable (i.e. support islanders)?

J. SIGNATURE PAGE

Complete, sign, and submit the Signature Page, with the complete name and address of respondent, and name, mailing address, telephone number, and fax number of the person the County should contact regarding the RFI response.

V. QUESTIONS / SUBMISSION OF RESPONSES

Questions are only being accepted electronically until 4:00 P.M. HAWAI'I STANDARD TIME, ON TUESDAY, JULY 6, 2023. All questions or clarifications regarding this RFI must be submitted through the Public Purchase website.

Respondents are to upload Request for Information (RFI) responses by 4:00 P.M. HAWAI'I STANDARD TIME, ON TUESDAY, JULY 25, 2023 through the Public Purchase website, with all correspondence addressed to:

Purchasing Division
Department of Finance
County of Hawai'i
25 Aupuni Street, Suite 1101
Hilo, Hawai'i 96720

RFI Schedule

Activity (HST time zone)	DATE
County issues RFI	Monday, June 19, 2023
Response deadline for submitting questions 4:00pm HST	Thursday, July 6, 2023
Deadline for submitting Responses 4:00pm HST	Tuesday, July 25, 2023 ,

The undersigned has carefully read and understands the terms and conditions specified in the Specifications and Special Provisions attached hereto, by reference made a part hereof and available upon request; and hereby submits the following offer to perform the work specified herein, all in accordance with the true intent and meaning thereof. The undersigned further understands and agrees that by submitting this offer, 1) he/she is declaring his/her offer is not in violation of Chapter 84, Hawaii Revised Statutes, concerning prohibited State contracts, and 2) he/she is certifying that the price(s) submitted was (were) independently arrived at without collusion. This proposal is in all respects fair and is made without collusion on the part of any person, firm, or corporation, and no official or employee of the government has any illegal interest in the offer or any portion of the profits thereof.

The undersigned represents: **(Check one only)**

- A **Hawaii business** incorporated or organized under the laws of the State of Hawai'i; **OR**
 - A **Compliant Non-Hawai'i business** not incorporated or organized under the laws of the State of Hawai'i, but registered at the State of Hawai'i Department of Commerce and Consumer Affairs Business Registration Division to do business in the State of Hawai'i.
- State of incorporation: _____

Offeror is:

- Sole Proprietor Partnership Corporation Joint Venture
- Other _____

Federal I.D. No.: _____ Hawai'i GET License I.D. No.:

_____ Business address: _____

_____ City, State, Zip Code: _____

Name of Company contact and address to which correspondence should be sent:

Respectfully submitted:

Name of individual: _____

(x) _____

Address: _____

Authorized (Original Signature)

Telephone No.: _____

Fax No.: _____

Name and Title (Type or Print)

E-mail Address: _____

Exact Legal Name of Company (Offeror) under which the awarded contract will be executed

PLEASE TYPE OR USE BLACK INK)